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ANALYSIS, MANAGEMENT AND ASSIGNMENT OF INSURABLE EVENTS**5 Field of the Invention**

[0001] The present invention relates generally to insurance, and more particularly, to a computer based system for analysis, management and/or assignment of insurable events based on information associated with the insurable event.

10 Background

[0002] Issuing insurance policies and processing insurance claims of previously insured customers is a significant part of the business activities of insurance companies. When handling a new insurance claim (or other insurable event), the process of getting the insurance claim information to the appropriately skilled individual (claim handler) within an insurance company's claims organization is, for many insurance carriers, a manual process. Many times this is the responsibility of managers within the insurance claims organization portion of the insurance business.

[0003] Depending to some extent on the skills of the managers and the processes utilized, a number of technical issues may be present. These technical issues may lead to increased handling time, increased analysis requirements and case management difficulties related to new insurance claims. A significant technical issue involves the lack of a repeatable, consistent and logic-based assignment of new insurance claims. Examples of other technical issues that cause increased handling time include bottlenecks caused by the assignment process, inappropriate assignment due to lack of manager skill with various types of insurance claims, and inefficiencies because many similar insurance claims of relatively low complexity require the same assignment attention and resources as high-complexity claims.

[0004] In larger insurance organizations, managers may also have difficulty in determining the availability and existing workload of claims handlers. Accordingly, schedule conflicts among the insurance claims assigned to specific claim handlers may create further inefficiency. In addition, managers may have difficulty identifying potential claim handlers with the technical skills appropriate for certain types of insurance claims. When claims are not optimally assigned, further inefficiencies may occur such as increased cost of a negotiated insurance claim payment due to lack of skill of the assigned claim handler. The inefficiencies related to increased handling time may become especially acute in insurance organizations having multiple offices in various geographic locations. With various geographically distant offices, it is difficult for managers to remain familiar with the expertise and availability of the various claims handlers at the different locations. As is readily apparent, similar inefficiencies may be present in the manual assignment of any other type of insurable event.

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[0005] Accordingly, there is a need for a mechanism capable of repeatable and systematic analysis, management and assignment of insurable events to organization entities with accuracy and efficiency through logical analysis of parameters related to the insurable event.

5 Summary

[0006] The present invention includes a system capable of analysis, determination of the proper assignment and automatic assignment of insurable events to organizational entities such as internal or external adjusters, vendors, offices, teams and/or other third parties associated with an insurance organization. The system is lightweight and configurable to provide insurance organizations fast,
10 accurate and efficient analysis and management of insurable events.

[0007] The analysis management of an insurable event is performed with the system to systematically choosing the organizational entity(s) best able to handle the insurable event. Systematic selection of the organizational entity(s) may be based on properties associated with the insurable event that are stored in a memory device. Analysis of the properties with the system may be
15 used to analyze, categorize and automatically assign the insurable event. Properties considered by the system during analysis, categorization and automated assignment may include jurisdiction, line of business, complexity, insurable event group and assignment group.

[0008] The system may also consider factors such as experience/skills, availability and/or workload related to the organizational entity(s) during the analysis and management process. The
20 availability of organizational entities being considered for automated assignment may vary from week to week and/or between different organizational entities. (i.e. holidays, vacations, part-time vs. full-time, etc.). The system may also perform load balancing when managing and assigning insurable events to organizational entities. Load balancing may be based on consideration of current workload, such as, the number of insurable events currently assigned in a given period, resource availability
25 percentages assigned to each organizational entity, etc.

[0009] Insurable events may also be analyzed and managed to be identified as exceptions by the system. For example, insurable events that are analyzed and determined not to fit within automated assignment rules may be identified as exceptions. Insurable events identified as exceptions may be
30 automatically managed by being assigned to organizational entities identified as exception organizational entities capable of addressing such insurable events. The system may analyze and manage such insurable events to assign an exception organizational entity(s) by considering properties and/or factors associated with the insurable event and/or the exception organizational entity.

[0010] The system may also have access to a pattern analyzer system. Data associated with an insurable event may be used to trigger one or more specific determined patterns (or profiles) to divide
35 the insurable event into segments. The patterns within each of the segments may be logically analyzed to provide different predetermined outcomes. At least one outcome from each of the segments may be selected for logical aggregation with the other selected outcomes to select a

predetermined pattern result. Where there are multiple predetermined outcomes in one or more of the segments, the outcomes from the segments may be selected for logical aggregation to produce a plurality of predetermined pattern results. The pattern results may be part of the properties considered by the system during analysis, management and automated assignment of an insurable event.

5 [0011] Further objects and advantages of the present invention will be apparent from the following description, reference being made to the accompanying drawings wherein preferred embodiments of the present invention are clearly shown.

Brief Description of the Drawings

10 FIG. 1 is a block diagram of an example insurable event management system.

FIG. 2 is a block diagram illustrating an example rules engine within the insurable event management assignment system of FIG. 1.

FIG. 3 is a process flow diagram depicting example operation of the insurable event management system of FIGs. 1 and 2.

15 FIG. 4 is a second portion of the flow diagram illustrated in FIG 3.

FIG. 5 is a third portion of the flow diagram illustrated in FIG. 3.

FIG. 6 is a block diagram of an example pattern analyzer system.

FIG. 7 is a block diagram depicting an example of data organization within a pattern database illustrated in FIG. 6.

20 FIG. 8 is a process flow diagram illustrating example operation of the pattern analyzer system of FIG. 6 to configure the data organization depicted in FIG. 7.

FIG. 9 is a second portion of the flow diagram illustrated in FIG. 8.

FIG. 10 is a process flow diagram illustrating example operation of the pattern analyzer system of FIG. 6 when data associated with an insurable event is processed.

25 FIG. 11 is a second portion of the flow diagram illustrated in FIG. 10.

Detailed Description

[0012] The present invention includes a system for automated analysis, management and assignment of insurable events. Data representative of an insurable event may be analyzed by the insurable event management system. Based on data analysis as well as availability and workload considerations, one or more organizational entities associated with an insurance organization may be identified by the system. The identified organizational entity(s) may be assigned to handle (e.g. manage and/or work on) the insurable event by the system.

[0013] The system may be utilized for analysis, management and assignment of any insurable event. As used herein, the term "insurable event" refers to any business related to an existing insurance policy, and the corresponding business related to claims against that policy including application for a new insurance policy, renewal of an insurance policy, changes to an existing

insurance policy, first notice of loss, fraud investigation or any other activity related to insurance that is experienced by an insurance organization.

[0014] FIG. 1 is a block diagram of an example system 100. The illustrated insurable event management system 100 includes at least one data entry terminal 102, at least one server computer 104, at least one database 106 and at least one insurable event handler terminal 108 all capable of communication over a network 110. In other examples, additional terminals, servers and/or any other devices capable of being coupled with the network 110 may be included in the system 100. As used herein, the term "coupled", "connected", or "interconnected" may mean electrically coupled, optically coupled, wirelessly coupled and/or any other form of association providing an interface between systems, devices and/or components.

[0015] The network 110 may include the Internet, a public and/or private intranet(s), an extranet(s), a dedicated communication line(s) and/or any other configuration to enable transfer of data and commands. Communication within the network 110 may be performed with a communication medium that includes wireline based communication systems and/or wireless based communication systems. The communication medium may be for example, a communication channel, radio waves, microwave, wire transmissions, fiber optic transmissions, or any other communication medium capable of transmitting data, audio and/or video information.

[0016] The data entry terminal 102 may be any device(s) with data entry capability that is also able to transmit the entered data over the network 110. Example data entry terminals 102 include a terminal, a laptop computer, a desktop computer, a personal digital assistant (PDA), a wireless phone, etc. The data entry terminal 102 may be operated by, for example, an employee of an insurance organization, such as a customer service representative, responsible for entry of data related to an insurable event.

[0017] As illustrated in FIG. 1, the data entry terminal 102 may also include a data entry module 114. The data entry module 114 may include instructions to enable operation of the data terminal 102 to provide data entry and retrieval capability. In addition, the data entry module 114 may include instructions to enable communication over the network 110 with the server computer 104. The data entry terminal 102 may operate with the data entry module 114 as a stand-alone device capable of selective communication with the server computer 104. Alternatively, the data entry terminal 102 may operate as a remote terminal dependant on communication with the server computer 104 for operational capability. Example data entry modules include Lotus Notes, proprietary software, browsers (such as Netscape Navigator® or Microsoft Explorer®) or any other form of executable instructions that provide data manipulation and communication capability. Data entered, retrieved and/or modified with the data entry module 114 may be transmitted over the network 110 between the data entry terminal 102 and the server computer 104.

[0018] The server computer 104 (or computer) may be any form of computing device(s) capable of receiving requests and transmitting responses over the network 110. Operation of the server

computer 104 may be based on instructions selectively executed by at least one processor (not shown) operating within the server computer 104. In addition to executing instructions to provide the functionality commonly provided in computing devices operating as servers on a network, the server computer 104 may execute instructions to enable operation of the system 100. Instructions executed
5 by the server computer 104 may be stored in a memory device 106.

[0019] The memory device 106 may be one or more data storage devices accessible by the server computer 104. The memory device 106 may be at least one magnetic data storage device, such as a hard driver, an optical disk, a tape, etc., and/or at least one electronic memory device such as flash memory, random access memory (RAM), etc. The memory device 106 may be located within the
10 server computer 104. Alternatively, the memory device 106 may be located anywhere within the network 110 that allows communication with the server computer 104. In another alternative, a portion of the memory device 106 may be located within the server computer 106 and other portion(s) of the memory device 106 may be located elsewhere within the network 110.

[0020] Included within the illustrated memory device 106 is at least one rules engine 116 and at
15 least one data storage database 118. The rules engine 116 may be executable instructions capable of providing the functionality of the system 100. In addition, the rules engine 116 may include instructions providing rules and other parameters for operation of the system 100. The data storage database 118 may be a database, such as a relational database that allows data storage capability for data entered via the remote terminal 102. In addition, data utilized or generated during operation of
20 the rules engine 116 may be stored in the data storage database 118. Also in communication with the server computer 104 is the insurable event handler terminal 108.

[0021] The insurable event handler terminal 108 may be any device capable of display and manipulation of information, such as, a terminal, a PC, a laptop, a wireless device, etc. The insurable event handler terminal 108 may be operated by an organizational entity, such as an insurance adjuster,
25 associated with an insurance organization. The organizational entity may be assigned responsibility for insurable events submitted to the insurance organization. As used herein, the term "organizational entity," "organizational entities" or "OE" is broadly defined to include an individual employee, any number of individual employees, offices, work groups, teams, etc. within an insurance organization. The term "organizational entity," "organizational entities" or "OE" may also refer to individuals,
30 offices, work groups, teams, etc. that are external to the insurance organization performing functions based on a relationship with the insurance organization.

[0022] Operating in conjunction with the insurable event handler terminal 108 is an insurable event handler module 120. Similar to the data entry module 114, the insurable event handler module 120 may include instructions enabling the capability to view, enter and manipulate data, as well as
35 communicate data between the insurable event handler terminal 108 and the server computer 104. The insurable event handler module 120 may also provide indication of assignment of an insurable event to an organizational entity operating the insurable event handler terminal 108. In addition, the

insurable event handler module 120 may enable the capability to maintain the status of the organizational entity via the insurable event handler terminal 108.

[0023] The status is indicative of the availability and workload of an organizational entity. For example, non-availability of an organizational entity during a holiday or vacation period may be indicated. Where the organizational entity is an individual, availability may be used to indicate whether the individual is in the office or out of the office. Similarly, workload may indicate the number and/or complexity of different insurable events the organizational entity is currently addressing. Indication of availability and/or workload may be provided by the organizational entity via the insurable event handler terminal 108. Indication of availability and/or workload may also be provided by the server computer 104 based on information stored in the memory device 106.

[0024] Although illustrated as separate devices, it should be recognized that the functionality of the data entry terminal 102 and the insurable event handler terminal 108 may be combined in the same device. In addition, the illustrated system 100 is only one example of the almost unlimited configurations of hardware, software and/or firmware capable of providing the functionality of the system 100. Further, it should be recognized that an organizational entity may include any number of data entry terminals 102 and/or insurable event handler terminals 108.

[0025] When an insurable event, such as an insurance claim, is submitted to an insurance organization, data related to the insurable event may be entered into the data entry terminal 102. In insurance claims for example, the data may include identification of the insured, the insurance policy number, details of the insurance claim, etc. The data may be transmitted over the network 110 to the server computer 104. The server computer 104 may execute instructions within the rules engine 116 to store the data within the data storage database 118 of the memory device 106.

[0026] The server computer 104 may also execute instructions to analyze the data and identify additional properties associated with the stored data. As used herein, the term "properties" or "property" is broadly defined to include the entered data associated with an insurable event as well as identified attributes, parameters, classifications, categorizations, pattern results, etc., that are associated, a result of, and/or are derived from the stored data by the system 100.

[0027] Properties of the stored data may include jurisdiction and line of business (LOB). Jurisdiction refers to the laws and other rules governing the insurable event, such as, the laws and rules of a State in the United States, or the laws and rules of a country, such as Germany. Line of business refers to the classification of the type of insurable event such as, property, vehicle, medical, workers compensation, etc. The types of insurable events may be further identified with line of business (also known as a "feature"), such as, for example, automobile related insurable events may be related to bodily injury, collision, comprehensive, uninsured motorist, etc. Further classifications of an insurable event, such as complexity, financial impact, severity, possibility for fraud, etc. may also be performed with the rules engine 116 by the server computer 104 based on the properties associated with an insurable event.

[0028] The server computer 104 may also execute instructions to generate additional properties by categorizing an insurable event based on the available properties. In addition, as described later, patterns of the insurable event may be determined using a pattern analyzer system and the available properties to generate additional properties to further categorize the insurable event. As used herein, "categorizing" or "categorization" refers to classification of an insurable event into a predetermined category(s) that has been identified by an insurance organization. Each of the patterns may also be referred to as a profile. In general, various patterns may be developed representative of different segments within insurable events. The patterns may be matched to an insurable event. One or more of a plurality of selected predetermined outcomes from each of the patterns may be aggregated to generate additional properties in the form of pattern results to further categorize the event. The pattern results may be chosen from among a plurality of available predetermined pattern results based on the outcomes selected for each of the patterns.

[0029] Utilizing the existing and identified properties, instructions in the rules engine 116 may be executed to identify target organizational entities best able to handle the insurable event. Target organizational entities may be identified based on matching the insurable event with the skill set of organizational entities. The skill set of an organizational entity(s) may be matched to an insurable event based on, for example, identified skills, expertise, experience, efficiency, grouping with other similar insurable events, geographic location, or any other criterion related to the organizational entity(s).

[0030] In addition, the status of the identified target organizational entities may be determined by the server computer 104. As used herein, the term "status" refers to the workload and/or availability of an organizational entity. As a function of the status of the target organizational entities, instructions in the rules engine 116 may be executed to assign the insurable event to a target organizational entity(s). Automated assignment may involve transmission of notification and/or the data related to the insurable event over the network 110 to the insurable event handler terminal 108 of the target organizational entity(s).

[0031] The previously described capability provided by the system 100 allows insurance organizations fast, accurate and repeatable analysis, management and assignment of insurable events. The insurable events may be analyzed, managed and assigned to any organizational entity, such as internal or external adjusters, vendors and/or any other third parties without the need for human intervention. Automated assignment may be performed through a systematic analysis and insurable event management process to choose an organizational entity(s) based on the properties associated with the insurable event.

[0032] The organizational entity(s) may be chosen based on analysis that resulted in being associated with one or more pattern results developed from the insurable event. Alternatively/in addition, an organizational entity(s) may be chosen based on complexity of the insurable event, experience/skills of the organizational entity(s), availability, workload and/or any other considerations

that provide efficient and cost-effective management of an insurable event. The resulting chosen organizational entity(s) will be capable of efficiently executing the process to handle the insurable event.

5 [0033] For illustrative purposes, the system 100 will be further described in the context of insurable events related to insurance claims, however, application to other types of insurable events are contemplated. Insurance claims typically occur when a customer of an insurance organization experiences an incident, such as property loss/damage and/or bodily injury that is covered by an existing insurance policy issued by an insurance organization. Upon notification of an incident (first notice of loss (FNOL)), the insurance organization may utilize the system 100 to analyze the
10 properties associated with the incident and manage the insurable event to determine appropriate course(s) of action.

[0034] FIG. 2 is an expanded block diagram example of the rules engine 116 depicted in FIG. 1. The illustrated rules engine 116 includes a properties identification (ID) module 202, an organizational entity (OE) ID module 204, an assignment module 206 and an exception module 208.
15 In other examples, any number of modules may be depicted to describe the functionality of the instructions within the rules engine 116.

[0035] The properties ID module 202 includes a line of business (LOB) component 216, a jurisdiction component 218 and an OE category component 220. In addition, the properties ID module 202 may include a group component 222, a complexity component 224 and a pattern analyzer
20 module 226. In other examples, any number of components/modules may be used to describe the functionality of the instructions in the properties ID module 202. The properties ID module 202 may be utilized to analyze previously stored data representative of an insurable event and identify properties related to the insurable event. In addition, the properties ID module 202 may be utilized to establish the granularity for management of the insurable event and determination of the type(s) of
25 target organizational entities to be selected by the system 100 (FIG. 1).

[0036] The LOB component 216 may retrieve the line of business included as part of the stored data. The jurisdiction component 218 may similarly retrieve the jurisdiction from the stored data. The line of business and jurisdiction may be manually entered utilizing the data entry terminal 102 (FIG. 1) as part of the data related to the insurable event.

30 [0037] The OE category module 220 may analyze the identified properties to determine the OE category(s) of organizational entities to which the insurable event may be assigned. The OE category(s) may identify a predetermined collection of organizational entities chosen to handle an insurable event. The predetermined collection may be individuals, groups, teams, offices, divisions and/or any other identifiable segment that is internal and/or external to an insurance organization.
35 The organizational entities may be preselected by the insurance organization to be identified within one or more OE categories based on the configured OE categories. The different OE categories

within a particular insurance organization may be configured to best suit the needs of the organization.

[0038] Selection of one or more OE categories as applicable to the particular insurable event may be based on categorizing the insurable event with the system 100. As previously discussed, categorization may be based on the line of business, jurisdiction, complexity, group ID, properties and/or results provided by a pattern analyzer system 234 via the pattern analyzer module 226. The pattern analyzer system 234 includes the capability to analyze the stored data and logically select pattern results from among a group of predetermined pattern results. For example, the pattern analyzer system 234 may determine the OE categories for an insurance claim based on pattern matching the facts and properties associated with the loss. Pattern results may also be referred to as profile results or properties.

[0039] The pattern analyzer system 234 may, for example, provide pattern results for an insurable event that are indicative of an insurance claim related to water damage. The pattern results may be associated with a determined OE category(s) such as an OE category(s) that handles insurance claims related to water damage. In addition, any other properties include in the stored data representative of the insurable event may be utilized in the OE category determination.

[0040] The group component 222 and/or the complexity component 224 may or may not be utilized to determine properties associated with an insurable event. Where applicable, the group component 222 may retrieve a group ID associated with the stored insurable event. The group ID may be an identifier to associate related insurable events, such as insurance claims resulting from a single event such as a hurricane, fire, earthquake, etc. The complexity component 224 may retrieve a complexity identifier indicative of the level of complexity of the insurable event.

[0041] The group ID and/or complexity may be a manually entered within the stored data or may be determined with the pattern analyzer system 234. For example, the pattern analyzer system 234 may determine the group ID by pattern matching parameters within different insurable events. Complexity of an insurable event may also be determined with the pattern analyzer system 234 using, for example, pattern matching of estimates of loss, number of different individuals involved, severity of injury, complexity of the insurance policy involved, etc.

[0042] The pattern analyzer module 226 includes a pattern analyzer interface component 228, a multiple pattern component 230 and a pattern ranking component 232. The pattern analyzer interface component 228 may provide an interface between the system 100 and the pattern analyzer system 234. The pattern analyzer interface component 228 may be used to trigger processing by the pattern analyzer system 234 of data associated with an insurable event. Processing may be triggered by transmitting over the network 110 a processing request that includes the data associated with the insurable event. Alternatively, identification of the insurable event may be transmitted, and the pattern analyzer system 234 may access the associated data directly from the memory device 106 (FIG. 1).

[0043] The pattern analyzer system 234 may analyze the data associated with an insurable event and return one or more pattern results that are selected from among a plurality of predetermined pattern results. To obtain the pattern results the properties associated with individual insurable events may be divided into segments or dimensions that may also be referred to as pattern types. Each of the segments may be identified by matching the properties associated with the insurable event to one or more associated patterns that may also be referred to as components. Each of the matched patterns may provide an outcome resulting from analysis of the data associated with the insurable event that is matched to the pattern. The outcome may be selected from a predetermined group of available outcomes based on analysis of the data associated with the pattern. The selected outcome is indicative or descriptive of the data or properties associated with the pattern.

[0044] The outcomes from each of the patterns may be aggregated, or logically combined to form pattern result(s). Aggregation involves automated logical analysis/composition of the outcomes with respect to each other to arrive at selection of one of a predetermined group of results. The selected predetermined results are representative of the patterns when the patterns are considered in totality. For example, in an insurance claim, a first predetermined outcome selected for a first pattern may be indicative of unusually high financial losses. A second predetermined outcome selected for a second pattern may be indicative of an unusually high number of previous insurance claims. Logical analysis of the first and second outcomes during aggregation result in the selection of a predetermined pattern result indicative of high potential for fraud. The pattern result(s) may be transmitted over the network 110 to the pattern analyzer interface component 228.

[0045] The pattern result(s) is a property that may provide a more informed automated decision regarding analysis, management and assignment of insurable events to an organizational entity(s). Assignment may be accomplished by predetermined association of the different predetermined pattern results or properties with organizational entities and/or groups of organizational entities associated with the insurance organization. For example, a pattern result of a segment of an insurance claim may indicate the insurance claim involves water damage with relatively high replacement/repair costs. In another example, a selected predetermined pattern result may indicate the insurance claim is for water damage and that the property damaged by water includes difficult to replace items, such as antique or custom built furniture. One or more organizational entities with heavy water damage expertise may be associated with the pattern result indicative of high replacement/repair costs. Similarly a different organizational entity(s) with unique property compensation expertise may be associated with the pattern result indicative of difficult to replace items. Alternatively, the pattern result(s) may be considered in some form of rules based logical analysis to identify organizational entity(s) or groups of organizational entities associated with the insurance organization.

[0046] Where multiple outcomes are identified for one or more segments of an insurable event, a number of different logical aggregations of outcomes may be performed to generate different pattern results or properties. For example, both of the previously described pattern results indicative of water

damage may be generated for the same insurance claim. Where there are multiple pattern results, the multiple pattern component 230 may be used to cache and analyze the various pattern results.

5 [0047] One or more of the pattern results may be selected for utilization during analysis, management and assignment of an insurable event. For example, the multiple pattern component 230 may launch an externalized function (not shown), such as some form of pattern selection application to determine which pattern result(s) may be used to analyze, manage and assign an insurable event. In another example, an evaluation engine (not shown) may consider the various pattern results and the data associated with the insurable event to identify the most representative pattern result(s) for use in analysis, management and assignment of the insurable event.

10 [0048] Alternatively, the pattern ranking component 232 may perform ranking when multiple pattern results are identified for a single insurable event. The ranking may be based on any logical analysis of the pattern results that provides a relative importance among different pattern results. The criteria for deciding the relative importance of different pattern results may be determined by the insurance organization. For example, with insurance claims, ranking of pattern results may be based
15 on potential financial impact of settlement of the insurance claim, potential level of fraud associated with the insurance claim, potential unwanted publicity associated with the insurance claim, potential customer satisfaction, etc. The highest ranked pattern result(s) may be selected for use during further operation of the system 100.

[0049] The OE ID module 204 includes an OE list component 240, an OE availability component
20 242 and an OE decision component 244. In other examples, any number of components may be used to describe the functionality of the instructions in the OE ID module 204. The OE ID module 204 may be utilized to identify one or more target organizational entities within the OE category(s) identified with the properties ID module 202. Alternatively, where the properties ID module 202 is not present, the OE ID module 204 may consider all organizational entities associated with the
25 insurance organization as candidates for identification as target organizational entities. In addition, instructions in the OE ID module 204 may be executed to determine the availability of the identified target organizational entities.

[0050] The OE list component 240 may be utilized to develop an OE list of target organizational entities within the identified OE category(s). Development of the OE list of target organizational
30 entities may be based on an assignment template. An assignment template may be selectively configured with one or more selection criteria for each organizational entity and/or group of organizational entities associated within an insurance organization that are eligible for assignment of insurable events. Configuration of the selection criteria for each assignment template may include indication of the corresponding line(s) of business, jurisdiction(s), complexity(s), group ID(s) (if
35 available), OE category(s) and/or pattern results that correlate to an organizational entity(s).

[0051] The OE list of target organization entities may be developed by matching the selection criteria in the different assignment templates to properties associated with an insurable event.

Identification of target organizational entities for the OE list may be based on the configured selection criteria. Where a selection criterion is not configured within an assignment template, it may be assumed that there are no restrictions for the associated organizational entity(s) in handling insurable events for that selection criterion. For example, where the selection criteria related to complexity is left blank in an assignment template, the associated organizational entity(s) has the capability to handle any level of complexity of insurable events. Alternatively, a blank selection criterion may be used to indicate the inability of an associated organizational entity(s) to handle any insurable event that includes the respective property. For example, where the selection criteria related to the group ID is left blank in an assignment template, the associated organizational entity(s) is not capable of handling insurable events within any identified group of insurable events.

[0052] The OE availability component 242 may include instructions to determine the availability of target organizational entity(s) from the list developed by the OE list component 240. Alternatively, where the OE list component 240 is not present, the OE availability component 242 may determine the availability of all the organizational entities, or the organizational entities within the OE category(s) identified with the properties ID module 202.

[0053] Availability may be based on whether an organizational entity such as an individual employee is "in-office" or "out-of-office." "In office" refers to organizational entities that are currently available to handle an assigned insurable event such as physically present in the office, logged on to the network 110, or otherwise capable of receiving and responding to an assignment. "Out of office" refers to an organization entity that is not currently capable of responding to the assignment of an insurable event. When an organizational entity is marked as "out-of-office," the organizational entity may be considered as unavailable to have insurable events assigned to them, and the assignment may be made to a different organizational entity(s).

[0054] The availability of each organizational entity may be maintained within the system 100 and manually updated. For example, supervisor(s) of individual claim handlers and/or individual claim handlers may identify themselves as in or out of the office by toggling the appropriate indication within the system 100. Such indication may be performed with the insurable event handler module 120 (FIG. 1). Future indications of when organizational entities are available may also be similarly identified. Alternatively, a calendaring system associated with the insurance organization and/or the organizational entities, such as Microsoft Exchange® Calendar, may be accessed by the system 100 to provide indication of availability.

[0055] The availability determination with the OE availability component 242 may also include scheduling functionality. The scheduling functionality includes the capability to forecast and/or be provided the estimated time to process and complete work on an insurable event. The OE availability component 242 may utilize the estimated time to complete and review existing availability to more accurately identify whether an organizational entity is actually available. For example, if an organizational entity is indicated as available in a current hour, but unavailable for the following forty

hours, the OE availability component 242 may consider the organizational entity currently unavailable in view of an insurable event with an estimated time to process the insurable event of eight hours.

5 [0056] The OE decision component 244 may determine if there is an organizational entity(s) with availability as identified by the OE availability component 242. Where no organizational entities were identified with availability, instructions in the OE decision component 244 may be executed to transfer the insurable event to the exception module 208. Alternatively, where at least one organizational entity with availability has been identified, instructions in the OE decision component 244 may transfer the identified organizational entity(s) to the assignment module 206.

10 [0057] The illustrated assignment module 206 includes an OE load balance component 246, an automatic assignment component 248 and an assignment complete component 250. In addition, the assignment module 206 may have access to an allocation module 252. In other examples, any number of components and/or modules may be used to illustrate the functionality of the instructions in the assignment module 206. The assignment module 206 may assign insurable events to organizational entity(s) based on the number of insurable events currently assigned, or assigned during a determined
15 period of time. In addition, assignment may be based on a resource availability that is designated for each organizational entity.

[0058] The load balance component 246 includes instructions to consider workload capacity as well as determine existing workload and potential for additional workload for each of the target
20 organizational entities. A workload capacity may be used to provide indication of the amount of work that is assignable to a target organizational entity. The workload capacity may be indicated by a value, such as, a workload percentage. The workload capacity may be used by the load balance component 246 to determine load balancing for insurable events to be assigned.

[0059] The workload capacity may be manually adjusted by, for example, a supervisor of the organizational entity. Manual adjustment may involve changing values stored in the system 100. For
25 example, if an organizational entity is a full-time employee and will be available for a full workweek of 40 hours, then the workload capacity may be set to 100, and the number of assigned insurable events that this particular resource can handle will be adjusted accordingly.

[0060] If this organizational entity switches to working as a part-time employee available only 20
30 hours per work week, the workload capacity may be reduced to 50, meaning that only 50% of the insurable events assigned to a full time organizational entity (100 workload capacity) will be assigned. The workload capacity may also be adjusted to account for other workload issues. For example, the workload capacity may be adjusted based on a learning curve, or to allow an organizational entity to have an easier week to catch up on things if the prior week was particularly grueling.

[0061] Automated adjustment of workload of an organizational entity may also be performed with
35 the system 100. Workload refers to the quantity and/or complexity of insurable events assigned to an organizational entity. Workload adjustments may be based on the estimated time to complete work on the insurable event as determined with the OE availability component 242. As insurable events are

assigned and completed, workload may be adjusted automatically by the load balance component 246. A maximum and/or minimum workload may also be designated for each organizational entity. For example threshold quantities of assigned insurable events may be used to vary minimum/maximum workload. Similarly, threshold hours determined based on the total estimated time to complete
5 previously assigned insurable events may be utilized to dynamically adjust workload.

[0062] The load balance component 246 may also be utilized to balance the amount of insurable events assigned to the different target organizational entities. Configuration of the workload balancing functionality within the load balance component 246 may be arranged in any of a number of different ways. For example, configuration may be based on the experiences of the insurance
10 organization with certain types of insurable events. Certain types of insurable events may be identified by properties associated with each of the insurable events, as previously discussed. Alternatively, segments within each of the insurable events may be matched to patterns by the pattern analyzer system 234 to develop pattern results for use in identifying types of insurable events.

[0063] Workload balancing may be accomplished with the load balance component 246 based on
15 the number of insurable events currently assigned to an organizational entity in a given period in view of the workload capacity of the organizational entity. The load balance component 246 may review the number of insurable events previously assigned to the target organizational entities. In addition, the workload capacity of each of the target organizational entities may be reviewed. The load balancing component 246 may operate linearly to select the organizational entity with remaining
20 workload capacity and the lowest existing workload. For example, if a first identified target organizational entity with a workload capacity of 100 has 15 insurance claims assigned and a second identified target organizational entity with a workload capacity of 50 has 6 insurance claims assigned, then the second organizational entity may be assigned the next insurance claim.

[0064] Selection of the target organizational entity(s) for an insurable event may also include
25 evaluation of the insurable event in view of the capability of the selected target organizational entity(s) by instructions in the automatic assignment component 248. The evaluation may include determining if additional manpower, oversight, technical support or any other form of cooperative operation is needed by other target organizational entity(s). In addition, the evaluation may involve evaluation of the insurable event for partition into any number of sub-insurable events that are
30 assignable to the same and/or different organizational entity(s). The evaluation may be based on analysis of properties associated with the insurable event that include pattern results provided by the pattern analyzer system 234.

[0065] For example, where the insurable event is a very large and complex insurance claim involving multiple medical claims, property damage claims and uninsured motorist claims, the
35 insurable event may be partitioned into a number of sub-insurable events each assigned to different claim handlers. Similarly, where a selected target organizational entity with limited experience with

certain aspects of an insurable event is assigned, another organizational entity(s) with that experience may be assigned to assist with the same insurable event.

[0066] The automatic assignment component 248 may also include instructions to assign the insurable event to a target organizational entity(s) selected by the load balancing component 246.

5 Assignment of an insurable event may involve communication with the insurable event handler module 120 (FIG. 1) of the selected target organizational entity(s). The communication may be in the form of a message advising of the assignment, transmittal of the stored data associated with the insurable event, addition of an entry in a list of assigned insurable events or any other form of notification that the insurable event has been assigned to the selected target organizational entity(s).

10 **[0067]** The assignment complete component 250 may include instructions to indicate when an insurable event has been officially assigned. Official assignment of an insurable event may be used in record keeping. In addition, indication of official assignment may initiate and/or enable other processes cooperatively operating with the system 100. For example, the indication of official assignment may initiate processes to maintain and track assignment of insurable events assigned by
15 the automatic assignment component 248. Indication of assignment may also enable inclusion of the insurable event in a dynamic list of insurable events. The dynamic list may include the current status of each of the assigned insurable events, such as completed, pending, on hold, awaiting further information, settlement requested, etc. The current status may be entered by the organizational entity(s) assigned to the insurable event, stored and extracted for display in the dynamic list and/or
20 printing in report form. In addition, the duration, time spent or any other parameters associated with processing the insurable event may be based on indication of official assignment of an insurable event.

[0068] Alternatively, prior to executing instructions in the assignment complete component 250, the automatic assignment component 248 may access the allocation module 252. When present, the
25 allocation module 252 includes a credit determination component 254, an allocation validity component 256, a set allocation component 258 and an allocate insurable event component 260. In other examples any number of components may be used to indicate the functionality of the instructions within the allocation module 252.

[0069] The allocation module 252 may perform an administrative function to properly allocate
30 credit for handling the insurable event to the proper area of the insurance organization. The proper area may be, for example, an organizational entity (such as a particular office) a grouping of organizational entities, or any other subdivision associated with the insurance organization. In other words, the allocation module 252 is utilized to account for the handling of insurable events, e.g. to give credit to the proper area associated with the insurance organization. Accordingly, in insurance
35 organizations where such credit is not allocated or tracked, the allocation module 252 may be omitted.

[0070] The credit determination component 254 may include instructions to perform as a management tracking mechanism. The management tracking mechanism may identify target

allocation(s) of an insurable event to an organizational entity, organizational entity grouping, or any other area of the insurance organization affiliated with the organizational entity(s) assigned the insurable event. Alternatively, target allocation(s) of an insurable event may be to an organizational entity, organizational entity grouping, etc., other than the organizational entity, organizational entity grouping, etc. affiliated with the organizational entity assigned to handle the insurable event. For example, when the insurable event is an insurance claim related to a hurricane in Florida, the organizational entity(s) assigned to handle the claim may be affiliated with an office in California. Credit for the insurance claim may, however, be identified by the target allocation as an office in Florida where the event occurred.

5
10 **[0071]** The allocation validity component 256 may be used to determine whether the target allocation(s) of the insurable event to an organizational entity, organizational entity grouping or any other area of the insurance organization is valid. Validity may be based on; for example, whether an organizational entity, organizational entity grouping, etc. indicated as the target allocation exists and is still active. When the target allocation is found to be valid, credit for the identified organizational
15 entity, organizational entity grouping, etc. is set with the set allocation component 258. In addition, the insurable event may be officially allocated to the area identified as the target allocation with the allocate insurable event component 260. Official allocation may involve storing indication of the identified organizational entity, organizational entity grouping, etc. as part of the stored data associated with the insurable event. When the target allocation is found invalid with the allocation
20 validity component 256, the insurable event may be transferred to the exception module 208 for further processing.

[0072] The exception module 208 includes an exception organizational entity (OE) resource component 264, an exception OE decision component 266, an exception OE load balance component 268 and an exception OE automatic assign component 270. In other examples, any number of
25 components may be used to represent the functionality of the instructions in the exception module 208. The exception module 208 provides for automated assignment of insurable events that were not automatically processed, managed and/or assigned with the other modules in the system 100. Those insurable events identified as exceptions by the other modules may be handled with the exception module 208. As previously discussed, exceptions may occur when an organizational entity(s) is not
30 identified by the OE ID module 204 and/or when allocation of the credit for an insurable event is invalidated by the allocation module 252. In addition, the exception module 208 may be configured based on the needs of a particular insurance organization to handle any other insurable events identified as exceptions.

[0073] The exception OE resource component 264 may be used to automatically develop a list of
35 target exception OEs capable of handling the type(s) of exception(s). In addition, availability of the target exception OEs may be automatically determined with the exception OE resource component 264. The target exception OEs are a predetermined collection of organizational entity(s) identified by

the insurance organization to manage and/or work on insurable events identified as exceptions by the system 100.

[0074] For example, the list of exception OEs developed for an insurance claim may be the most experienced claim handlers associated with the insurance organization. In another example, the exception OEs may be organizational entity(s) with claim assignment experience capable of manually reviewing the data associated with the insurance claim and manually assigning the insurance claim to an appropriate organizational entity(s). In yet another example, the exception OEs may be organizational entity(s) that review the stored data associated with the insurable event and make amendments. The amendments may include correcting the data associated with the insurable event, determining and adding additional data, etc. The amended data associated with the insurable event may then be re-processed with the system 100 to automatically analyze, manage and assign the insurable event.

[0075] Similar to the OE list component 240, the OE list of target exception OEs may be automatically developed with the exception OE resource component 264 based on an assignment template. In addition, the exception OE resource component 264 may determine the availability of target organizational entity(s) within the OE list similar to the OE availability component 242. The exception OE decision component 266 may be used to determine if any exception OEs were listed and available similar to the OE decision component 244. If at least one target exception OE is listed, the exception OE load balance component 268 may be used to perform workload balancing similar to the load balance component 246.

[0076] The exception OE automatic assignment component 270 may automatically assign the insurable event to a target exception OE similar to the automatic assignment component 248. The issue assignment complete component 250 may then be used as previously described to complete the automated assignment process. Alternatively, the allocation module 252 may also be used to allocate credit for the insurable event to the proper area in the insurance organization as previously discussed. Where no target exception OEs were available and/or included in the OE list, the exception OE decision component 266 may identify a default exception organizational entity(s) for automatic assignment by the exception OE component 270. The identified default exception organizational entity(s) may then be automatically assigned and the insurable event may be allocated as previously discussed.

[0077] FIG. 3 is a block diagram illustrating operation of the example system 100 discussed with reference to FIGs. 1 and 2 when an insurable event in the form of an insurance claim is processed. As previously discussed, insurance claims are only one of many different types of insurable events capable of analysis, management and assignment with the system 100. The operation begins at block 302 when the insurable event is identified as an insurance claim. At block 304, data associated with the insurance claim, such as the name of the insured, the type of insurance claim, etc. is entered via

the data entry terminal 102. The data is transmitted over the network 110 to the server computer 104 and stored in the memory device 106 at block 306.

[0078] At block 308, it is determined if access to the pattern analyzer system 234 is available. If yes, the pattern analyzer interface component 228 is used to trigger operation of the pattern analyzer system 234 at block 310. At block 312, the insurance claim is divided into segments or pattern types by matching the data associated with the insurance claim to a group of patterns within a plurality of determined patterns. The segments (or pattern types) that include pattern(s) that match the data associated with the insurance claim are identified at block 314. At block 316, the data associated with the insurance claim that is matched to each of the identified patterns is analyzed. An outcome for each matched pattern is developed based on the analysis of the data at block 318. As previously discussed, the outcome is developed by selecting an outcome from among a plurality of predetermined possible outcomes based on logical analysis of the data matched to the pattern.

[0079] The outcomes from the matched patterns are logically aggregated to form a pattern result at block 320. As previously discussed, the pattern result is selected from among a plurality of predetermined possible pattern results based on logical combination of the outcomes. At block 322, it is determined with the pattern analyzer system 234 if multiple matched patterns (and therefore multiple outcomes) exist for any segment of the insurance claim. If yes, at block 324 it is determined if a pattern result for each possible aggregation of the various outcomes has been generated. If no, the pattern analyzer system 234 aggregates the outcomes in a different variation and returns to block 320 to obtain another pattern result. If pattern results have been generated for all possible aggregations at block 324, the pattern result(s) are stored and transmitted to the pattern analyzer interface component 228 at block 326. Referring back to block 322, if there are not multiple outcomes for any segment of the insurance claim, the operation proceeds directly to block 326 to store and transmit the pattern result(s).

[0080] Referring now to FIG. 4, at block 328, it is determined if there is more than one pattern result transmitted to the system 100. If yes, the pattern ranking component 232 is used to rank the different pattern results within a segment at block 330. At block 332, the highest ranking pattern result(s) is provided to the OE category module 220. The OE category module 220 is used to determine the OE category(s) at block 334. Referring again to block 328, if there is not more than one pattern result, the operation proceeds directly to block 334 to determine the OE category(s). Similarly if at block 308 of FIG. 3, the pattern analyzer system 234 is unavailable, the operation proceeds to block 334 of FIG. 4 to determine the OE category(s).

[0081] At block 336, the OE list component 240 is used to develop an OE list of target organizational entities (OEs) utilizing data associated with the insurable event and/or the pattern results from the pattern analyzer system 234. The OE list may be utilized with the OE availability module 242 to determine the availability of the target organizational entities at block 338. At block

340 the decision component module 244 is used to determine if one or more target organizational entities are available from the OE list.

[0082] If yes, the load balance component 246 is used to compare the workload of the target organizational entities in the OE list and identify target organizational entity(s) with lower workload at block 342. At block 344, the automatic assignment component 248 determines if sufficient target organizational entity(s) have been identified. If not, at block 346, additional target organizational entity(s) with lower workload are identified. The identified target organizational entity(s) are assigned by the automatic assignment component 248 at block 348. If at block 344 sufficient target organizational entity(s) have been identified, the identified target organizational entity(s) are assigned at block 348.

[0083] Referring now to FIG. 5, at block 350, it is determined if the allocation module 252 is present. If no, indication that assignment of the insurance claim is complete is performed with the assignment complete component 250 at block 352. If the allocation module 252 is available at block 350, the credit determination component 254 is used to determine the proper area of the insurance organization that should get credit for the insurance claim (the target allocation) at block 356. The validity of the target allocation is checked with the allocation validity component 256 at block 358. If the target allocation is valid, at block 360 allocation to the proper area is set with the set allocation component 258. At block 362, the insurance claim is allocated to the determined proper area of the insurance organization and the operation returns to block 352 to indicate the assignment of the insurance claim is complete.

[0084] If at block 358, the target allocation is invalid, the insurance claim is identified as an exception at block 366. At block 368, the exception OE resource component 264 is activated to determine target exception organizational entities. Referring again to block 340 of FIG. 4, where there are no target OEs available, the insurance claim is similarly identified as an exception at block 366 of FIG. 5 and determination of target exception organizational entities is determined. The exception OE resource component 264 determines availability of the determined target exception organizational entities at block 370.

[0085] At block 372, it is determined with the exception OE decision component 266 if any target exception OEs have been determined, and are available. If yes, the exception OE load balance component 268 reviews the workload of the target exception organizational entity(s) that are available and identifies an exception organizational entity(s) with a lower workload at block 374. At block 376, the exception OE automatic assignment component 270 automatically assigns the insurance claim to the identified target exception OE(s) and the operation returns to block 350 to determine if the allocation module 252 is present. If at block 372, no target exception organizational entities were available and/or determined, the exception OE decision component 266 identifies the default exception organizational entity(s) and the operation proceeds to block 376 to automatically assign the insurance claim.

[0086] The previously discussed system 100 minimizes inefficiencies involved in analyzing, managing and assigning insurable events to organizational entities associated with an insurance organization. With manual processing of insurable events, consistency in consideration of a host of variables and properties associated with an insurable event to accurately and repeatably analyze, categorize and manage an insurable event is difficult. In addition, manual processing may overlook the importance of maintaining a balanced workload, as well as failing to assign complex claims to the right resources with consideration toward availability, skills and expertise. The system 100 provides automated analysis, management and decision making regarding insurable events that considers the data and properties of the insurable event during the analysis and management process. In addition, the system 100 considers the status, capabilities, etc. of organizational entities during the assignment process. Further, business rules of any insurance organization may be implemented consistently and accurately with the system 100 to customize the analysis, management and assignment process. Accordingly, the analysis, management and assignment processes may be automated in a customized fashion to maximize repeatability and minimize the time and resources expended to get an insurable event processed and assigned to the proper organizational entity(s).

[0087] Referring again to FIG. 2, the system 100 may also be leveraged through use of the pattern analyzer system 234. The pattern analyzer system 234 is an automated pattern-based decisioning process that may be utilized to provide a more detailed analysis of an insurable event. By matching different segments of the insurable event to patterns, one or more predetermined outcomes may be selected for different segments of the insurable event. The outcomes from each of the segments may be aggregated and a predetermined pattern result may be selected. Where multiple predetermined outcomes are selected for a segment, the outcomes may be used in different aggregations to generate a plurality of predetermined pattern results.

[0088] The pattern analyzer system 234 successfully avoids the need for creation of large, complex and unwieldy super patterns by using multiple patterns and aggregating the outcomes. As such, the patterns may remain relatively small and compact allowing faster and more efficient processing by the pattern analyzer system 234. In addition, such patterns are relatively simple to create, customize, maintain and store. Further, since the outcomes of the patterns are logically aggregated to form pattern results simplicity and efficiency are maximized without sacrificing the level of granularity available to analyze the data associated with an insurable event.

[0089] The pattern result(s) may be used by the system 100 during the analysis, management and assignment of the insurable event to an organizational entity(s) as previously described. For example, the pattern results may be used to identify insurance claims with immediate resolution possibilities, identify different tasks within an insurable event, identify the potential for fraud, bring consistency and optimization to the assignment process, more specifically identify required skills and expertise of organizational entities, identify "norms" within the insurable event, provide input to automated evaluations/recommendations/best practices, provide performance feedback, etc.

[0090] As should be recognized, the pattern results are readily customizable via the patterns and may be used to indicate any type of information related to the processing and/or the nature of an insurable event that is desired by an insurance organization. Accordingly, an insurance organization may develop one or more pattern results to identify different business conditions. For example, insurance events that are insurance claims may include the need for identification of a business condition of risky drivers of vehicles. The business condition of risky drivers may be developed by creating patterns based on indicative properties associated with an insurance claim, such as, frequency of insurance claims, number of traffic violations, age of the driver, type of vehicle, etc.

[0091] FIG. 6 is a block diagram depicting a more detailed example of the pattern analyzer system 234 illustrated in FIG. 2. The pattern analyzer system 234 may operate on one or more server computers capable of communication over the network 110 to generate pattern results for insurable events. Development of the pattern analyzer system 234 may be with any server computer compatible programming language, such as Microsoft Visual Basic®. Alternatively, the pattern analyzer system 234 may be developed with a rules based software application, proprietary software or any other application capable of providing the functionality described.

[0092] The illustrated pattern analyzer system 234 includes a pattern engine 602, a memory device 604 and a maintenance module 606. In other examples, any number of engines, modules and/or components may be used to illustrate the functionality of the pattern analyzer system 234.

[0093] The pattern engine 602 may include instructions to logically control the flow of execution of the pattern analyzer system 234. In addition, the pattern engine 602 may be used to evaluate data associated with an insurable event. Evaluation of the data associated with an insurable event may involve executing instructions in the form of rules that are stored in the memory device 604. Instructions within the pattern engine 602 may also be used to communicate the results of the evaluation of data associated with insurable events over the network 110. The results data may be communicated to the system 100 as previously discussed. Alternatively, the results data may be communicated to other systems within an insurance organization such as, a task management system for managing, scheduling, etc. the tasks associated with an insurable event. The pattern engine 602 may also include instructions to store the results in the memory device 604. Accordingly, the system 100 and/or other systems may access the memory device 604 to obtain the results.

[0094] The memory device 604 may be similar to the memory device 106 (FIG. 1) and may communicate with the pattern engine 602. The illustrated memory device 604 includes a pattern database 610 and a results database 612. The pattern database 610 may include all the rules and pattern related data utilized by the pattern engine 602. The results database 612 may include the results data generated during processing with the pattern engine 602. Accordingly, the patterns matched for each segment of an insurable event and associated selected predetermined outcome(s), as well as the predetermined pattern results selected as a result of aggregation of the outcomes of the

patterns may be part of the results included in the results database 612. Access to the memory device 604 may be performed with the maintenance module 606.

5 [0095] The maintenance module 606 includes instructions to create and maintain patterns and other rules related information, as well as view and maintain the results of processing of insurable events by the pattern engine 602. The illustrated maintenance module 606 includes a pattern maintenance component 616, a results review component 618 and a results reporting component 620. In other examples, any number of components may be illustrated to describe the functionality of the instructions in the maintenance module 606.

10 [0096] The pattern maintenance component 616 includes instructions to allow creation, amendment, deletion and other activities related to patterns and other related data included in the pattern database 610. Similarly, the results review component 618 may provide instructions for viewing and manipulating the results from insurable events processed with the pattern analyzer system 234 and stored in the results database 612. The results reporting component 620 may be used to generate transactional and/or summary level reports based on data in the pattern database 610 and/or the results database 612.

15 [0097] FIG. 7 illustrates an example structure of the pattern-related data within the pattern database 612. The structure includes at least one characteristic 702 and/or at least one collective 704 that may be used to define a pattern 706. One or more patterns 706 may be included within a pattern type 708 as illustrated. A pattern type 708 may also be referred to as a dimension. Each pattern type 20 708 may be representative of a different segment, or class, of an insurable event. Accordingly, an insurance organization may identify any number of pattern types 708 for various types of insurable events. In addition, any number of patterns 706 representative of respective segments of the insurable event may be defined within each of the pattern types 708. Although not illustrated, the pattern types 708 may be in a hierarchal configuration to form tiers where multiple pattern types 708 in one tier 25 may be within a pattern type 708 in a higher tier. Accordingly, the predetermined outcomes selected for each of a plurality of patterns 706 in one tier may be logically aggregated and used to select a predetermined outcome in another tier that may be logically aggregated with other selected predetermined outcomes in that tier.

30 [0098] The pattern analysis system 234 may be enabled through the user-defined components of the characteristic 702, the collective 704 and the pattern 706. As used herein, the term "pattern item" or "profile item" refers to any of the items which can make up a pattern 706, such as, characteristics 702 and collectives 704. Each pattern item may be represented by a characteristic(s) 702 or a collective(s) 704.

35 [0099] The characteristics 702 are the most basic component that can be used to define a pattern 706. The characteristics 702 may be considered an atomic level of assessment that look at actual data variables that are part of the data associated with an insurable event. The data variables may be compared to predetermined characteristic attributes such as, thresholds, timeframes, currency values,

code values or any other value that may be associated with individual characteristics 702. Each of the predetermined characteristic attributes are also associated with one or more of the patterns 706. The predetermined characteristic attributes may also be referred to as gradient definitions or characteristic definitions. A threshold characteristic attribute may be used to evaluate numeric and/or text based data variables. Time frame characteristic attributes may be values in units such as days, months and years that may be used in evaluation of time-based data variables. Currency based evaluations of data variables may be performed using characteristic attributes that are currency values. Characteristic attributes that are code values may be used in code-based evaluations of codes defined at either the characteristic or characteristic category levels for individual characteristics or characteristic categories, respectively.

[00100] As a result of the comparison of the data variables to the characteristic attributes within a selected pattern 706, at least one of a plurality of predetermined attributes is selected from among a group of predetermined attributes. Attributes may also be referred to as gradients. The attributes may be any predetermined discrete information that is descriptive of the data variables associated with the respective characteristic. For example, an attribute may be "true/false", "excellent/good/fair/poor", "above average/average/below average", "new/like new/middle age/old/unacceptable", etc. As described later, different logical combinations of the predetermined attributes may be created by logical configuration of the characteristics within a pattern. The logical combination of the attributes results in selection of predetermined outcome(s). Each of the outcomes may be selected from among a group of predetermined outcomes based on the attributes. The outcomes from the patterns 706 may be logically aggregated to achieve a result that is selected from among a group of predetermined results.

[00101] An example of a characteristic for a pattern 706 identified for an insurance claim is "Age of Claimant Less Than 18 Years Old" or "4+ Vehicles Involved in the Insurance Claim," and the corresponding characteristic attributes may be the threshold numeric values of 18 and 4, respectively. Accordingly, the characteristics 702 may be defined in view of one or more characteristic attributes that are compared to data variables expected to be present in the data associated with an insurable event. The resulting predetermined attribute for the example characteristic of "Age of Claimant Less Than 18 Years Old" may be "yes" or "no" depending on the data variable in the insurance claim that provides the claimants age.

[00102] The characteristics 702 may be grouped into characteristic categories 710 such as, in the case of an insurance claim, vehicle type, claimant age and number of claimants. Each characteristic category 710 may encapsulate one or more characteristics 702 that are defined based on the same characteristic attributes. Accordingly, the characteristics 702 grouped within a characteristic category 710 have resulting predetermined attributes that are mutually exclusive such that once the attribute for a characteristic 702 within a characteristic category 710 is defined, the attributes of other characteristics in the characteristic category are also defined. In other words, characteristic categories

may group characteristics that have predetermined attributes derived from the same factors or data variables.

[00103] Each characteristic 702 in a characteristic category 710 includes characteristic attributes that, when assigned a value, give the characteristic 702 a unique definition. For example, an insurance claim may have a characteristic category 710 of "claim status." A first characteristic 702 within the claim status characteristic category 710 may have a characteristic attribute of "insurance claim open." A second characteristic 702 in the claim status characteristic category 710 may have a characteristic attribute of "insurance claim closed." Depending on the values assigned to the characteristic attributes, the first and second characteristics 702 provide a unique predetermined definition (attribute) that the insurance claim is open, or that the insurance claim is closed. The unique predetermined definition is selected based on data variables within the insurable event that are analyzed with the characteristics attributes. Since the first and second characteristics 702 are mutually exclusive, when the attribute of one of the first and second characteristics 702 is identified, the attribute of the other characteristic 702 is also identified. Each characteristic 702 may be defined using at least one characteristic attribute.

[00104] The collectives 704 may be predefined from one or more combinations of characteristics 702 from different characteristic categories. Thus any number of characteristics 702 may be grouped together to form complex and/or reusable definitions. These definitions (collectives 704) can then be included as items in the building of patterns 706, which are the enabling component for segmentation of an insurable event. The collectives 704 may be similarly grouped into predetermined collective categories 712, with similar collectives 704 grouped into the same collective category 712. For example, in an insurance claim, injury severity or insurance claim complexity may be predetermined collective categories 712. One or more collectives 704 may also be associated with a category level 714 as described later. A collective 704 may include at least one collective combination. A collective combination is a group of one or more characteristics 702 within the collective 704. Different collective combinations within a collective 704 may be "or"ed so that only one collective combination needs to be true for the entire collective 704 to evaluate to true. The characteristic(s) 702 within a collective combination are "or"ed if the subject characteristic(s) 702 belong to the same characteristic category 710. The characteristic(s) 702 within a collective combination are "and"ed if the subject characteristics 702 belong to different characteristic categories 710. A collective 704 may also have a collective description to identify the type of collective 704 and/or the intent of the collective 704. An example of a predetermined collective description might be "Good Operator Driving Record."

[00106] The patterns 706 may thus be developed by combining one or more rules comprised of characteristics 704 and collectives 706 organized in a logical structure. In addition, multiple patterns 706 may be developed within a pattern type 708. The rules, patterns 706 and pattern types 708 may be developed based on segmenting an insurable event into manageable segments. Segmentation allows an insurance organization to group insurable events based on similar properties or dimensions

associated with the insurable events and/or performance objectives of the insurance organization. The individual segments may represent levels of risk, insurance claim types or any other insurable event quality capable of being segmented. Selection of the segments in a particular type of insurable event may be specified by the insurance organization. Once an insurable event is segmented, tailored
5 business strategies, processes, and practices based on experience and best practices may be determined for each segment.

[00107] Referring now to FIGs. 6 and 7, the pattern maintenance component 616 enables the viewing, adding, editing, and deleting of characteristics 702, collectives 704, characteristic categories 710, collective categories 712, collective descriptions, collective combinations, etc. within the pattern
10 database 610. By providing for the creation of characteristics 702 with associated characteristic attributes, the pattern maintenance component 616 may provide the granularity necessary to build combinations and/or collectives 704 utilizing the characteristics 702. As such, the pattern maintenance component 616 may be used to create the building blocks for the pattern criteria by defining the characteristics 702 as well as characteristic categories 710 and/or collectives 704.

[00108] In addition, various category levels 714 within the pattern database 610 may be defined with the pattern maintenance component 616. The category levels 714 (or hierarchical data levels) may each include characteristics 702 and/or collectives 704 that are logically related among the various levels to form a pattern 706. For example, the category levels 714 in patterns 706 for an insurance claim may be defined as claim, line or participant to identify pattern items related to the
20 entire insurance claim (claim), the line of business (line) and the individuals identified in the insurance claim (participants). A category level 714 is a level of data that may be defined by one or more collectives 704 and/or characteristics 702. For example, where the subject of a collective 704 is evaluated to be true based on the data variable(s) of an insurable event, the subject is true for that category level 714. The pattern maintenance component 616 may therefore provide for the creation of
25 complex and reusable definitions/rules that may be used to build various patterns 706 to be matched against segments of an insurable event.

[00109] Existing patterns 706 may be viewed, copied, modified or deleted with the pattern maintenance component 616. In addition, the pattern maintenance component 616 may be used to add new patterns 706, view lists of selected patterns 706 as well as to search for individual patterns
30 706 and/or groups of patterns 706. Modification of existing patterns 706 involves amending the pattern items defining the pattern 706. Where a significant change to the pattern items is desired, a new version of the pattern 706 may be created with the pattern maintenance component 616. When a new version is desired, the pattern maintenance component 616 may create a new pattern with the same identifier, but with a new version number. Versions may also include both a "start date" and a
35 "stop date" to indicate the timeframe when a version should utilize.

[00110] When adding a characteristic 702 and/or collective 704 to an existing pattern 706, the associated characteristic attribute(s) may be specified to be matched for any or all of a particular data

variable in the data associated with an insurable event. For example, in an insurance claim, one pattern 706 may specify "ANY vehicle involved in the insurance claim is a truck", whereas a second pattern 706 may specify "ALL vehicles involved in the insurance claim are trucks", depending on the goal of the pattern 706. In this example, the underlying characteristic is "Vehicle involved in the insurance claim is a truck," and can apply to any or all vehicles depending on the usage in the pattern 706. ANY/ALL may be relevant whenever a particular characteristic 702 or collective 704 refers to entities that may have multiple occurrences in a single transaction. For example, vehicles, operators, participants, etc.

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[00111] FIG. 8 is a process flow diagram illustrating example configuration of the pattern analyzer system 234 illustrated in FIGs. 6 and 7 for an expected type of insurable event. At block 802, the expected type of insurable event, such as an insurance claim is identified. Various pattern types 708, such as personal injury, property damage, etc. are identified as segments or dimensions of the insurable event at block 804. At block 806, a certain business condition, or component such as severity of personal injury, extent of property damage, fraud, etc. is identified within one of the pattern types 708.

20
[00112] The collectives 704 associated with the identified business condition, such as type of injury, type of property damaged, etc. are identified at block 808. At block 810, characteristic categories 710, such as length of hospital stay, vehicle type, etc. are identified for the identified business condition. The characteristics 702 indicative of the business condition such as number of individuals injured, length of hospital stay, absence from employment, etc. may be identified at block 812. At block 814, the characteristics 702 may be defined with characteristic attributes or gradient definitions. Some of the characteristics 702 may be logically added to the identified characteristic categories 710 at block 816.

25
[00113] At block 818, some of the characteristics 702 may be logically added to the identified collectives 704. Some of the collectives 704 may be further logically associated to form collective categories 712 at block 820. At block 822, the collectives and/or collective categories 712 may be logically associated to form one or more category levels 714.

30
[00114] Referring now to Fig. 9, the pattern items forming a pattern 706 are stored in the pattern database 610 at block 824. At block 826, it is determined if additional patterns 706 within the pattern type 708 are desired. If yes, the operation returns to block 806 of FIG. 8 to identify another business condition and build another pattern 706 using characteristics 702 and collectives 704.

35
[00115] If no additional patterns 706 within the pattern type 708 are desired at block 826 of FIG. 9, it is determined if additional patterns 706 in other pattern types 708 are desired at block 828. If no, the pattern analyzer system 234 waits to process an insurable event at block 830. If patterns 706 are desired in other pattern types 708, a different pattern type 708 is selected at block 828, and the operation returns to block 806 of FIG. 8 to identify a business condition and build a corresponding pattern 706.

[00116] FIG. 10 is a process flow diagram illustrating example operation of the pattern analyzer system 234 depicted in FIGs. 6 and 7 following configuration as described in FIG. 8. Operation of the pattern analyzer system 234 begins when data associated with an insurable event, such as an insurance claim, is made accessible to the pattern engine 602 at block 902. At block 904, the pattern engine 602
5 identifies the type of insurable event.

[00117] One of the determined pattern types 708 associated with the identified type of insurable event is selected by the pattern engine 602 at block 906. At block 908, one of the patterns 706 within the selected pattern type 708 is selected by the pattern engine 602. It is determined if the characteristics 702 defining the selected pattern 706 match the data associated with the insurable event
10 at block 910. If yes, data variables within the segment of the insurable event (e.g. the matched data) are analyzed with the characteristic attributes associated with the characteristics 702 at block 912. At block 913, predetermined attributes or gradients are selected based on the data analyzed with the characteristic attributes. As previously discussed, the attributes are pre-determined discrete descriptors of the data variables associated with the respective characteristics 702.

[00118] At block 914, the logic associated with the characteristics 702, characteristic categories 710, collectives 704, collective categories 712, etc. analyzes and logically combines the attributes to generate a discrete outcome for the pattern 706. As previously discussed, the outcome is selected from a group of predetermined outcomes based on the attributes previously selected. The outcome for the particular pattern 706 is stored in the results database 612 at block 916. At block 918, it is
20 determined if additional unprocessed patterns 706 exist within the selected pattern type 708. Referring again to block 910, if the characteristics 702 defining the pattern 706 do not match the data associated with the insurable event, the operation proceeds directly to block 916 to determine if additional unprocessed patterns 706 exist within the selected pattern type 708. If additional patterns 706 do exist in the selected pattern type 708, the operation returns to block 908 to select one of the
25 unprocessed patterns 706 to match to the insurable event.

[00119] Referring now to FIG. 11, if there are no additional unprocessed patterns 706 in the pattern type 708, it is determined if there are additional unprocessed pattern types 708 associated with the type of insurable event at block 920. If there are additional unprocessed pattern types 708, the operation returns to block 906 of FIG. 10 to select an unprocessed pattern type 708 and process the
30 associated pattern(s) 706. If there are no unprocessed pattern types 708 at block 920 of FIG. 11, the pattern engine 602 selects an outcome from one of the patterns 706 within each pattern type 708 at block 922.

[00120] At block 924, the outcomes are logically aggregated to produce a pattern result. As previously discussed, the pattern result is selected from a predetermined group of pattern results based
35 on the logical analysis of the selected outcomes. The pattern result is stored in the results database 612 at block 926. At block 928, it is determined if all the possible logical aggregations of the different stored outcomes have been performed. If no, the operation returns to block 922 to

sequentially select outcomes from each pattern type 708 that, when aggregated, result in selection of a different pattern result. If all possible aggregations of the stored outcomes associated with the insurable event have been performed, the pattern engine 602 provides all the stored pattern results over the network 110 to, for example, the system 100 at block 930.

5 [00121] The previously discussed pattern analyzer system 234 performs analysis and automated segmentation of insurable events based on user defined business rules. The rules may be developed and maintained with the maintenance module 606. Users of the pattern analyzer system 234 may define individual rules using characteristics 702 and/or collectives 704. The rules may be based on the expected data associated with an insurable event. Multiple rules may be logically combined to
10 define patterns 706.

[00122] The rules may be executed by the pattern engine 602. The pattern engine 602 may perform an analysis of the data to select the characteristics 702 and/or collectives 704 grouped into patterns 706 to describe the data variables within data associated with insurable events in order to provide more accurate and efficient classification or categorization of the nature of the insurable
15 event. The analysis, management, assignment and continued monitoring of the insurable event may be based on categorization of the insurable event. The patterns 706 may be created to encapsulate the knowledge of experts, institutionalize best practices, capture situational complexity, provide flexibility, extensibility and precision, support macro/micro segmentation, and/or allow quantitative/qualitative attributes. Matching an insurable event to defined patterns 706, selecting the
20 attributes based on the data, selecting outcomes based on the selected attributes and aggregating the outcomes of the patterns 706 can, provide a road map for management and execution of the tasks that should be performed to process the insurable event properly and efficiently on a repeatable basis.

[00123] While the present invention has been described with reference to specific exemplary embodiments, it will be evident that various modifications and changes may be made to these
25 embodiments without departing from the broader spirit and scope of the invention as set forth in the claims. Accordingly, the specification and drawings are to be regarded in an illustrative rather than a restrictive sense.

What is claimed is:

1. A system to analyze, manage and assign insurable events, the system comprising:
a memory device;
5 instructions stored in the memory device to compare properties of an insurable event to a plurality of predetermined patterns stored in the memory device to identify a group of patterns that can be matched with select properties;
instructions stored in the memory device to select outcomes for each of the patterns in the group from among a group of predetermined outcomes, wherein each of the outcomes are
10 indicative of the properties associated with a respective pattern;
instructions stored in the memory device to logically aggregate the outcomes to select a pattern result, wherein the pattern result is selected from among a group of predetermined pattern results to be indicative of the group of patterns;
instructions stored in the memory device to identify a list of target organizational
15 entities using at least one of the pattern result or the properties or combinations thereof; and
instructions stored in the memory device to assign the insurable event to one of the target organizational entities in the list using at least one of the pattern result or the properties or combinations thereof.
- 20 2. The system of claim 1, wherein instructions stored in the memory device to identify a list of target organizational entities comprises instructions stored in the memory device to develop the list of target organizational entities with a plurality of assignment templates stored in the memory device, wherein the assignment templates correspond to one or more of the target organizational entities and include selection criteria that can be matched to at least one of the properties or the
25 pattern result or combinations thereof.
3. The system as in any of claims 1-2, wherein the group of patterns are indicative of at least one segment of the insurable event and the pattern result is descriptive of the at least one
30 segment.
4. The system as in any of claims 1-3, further comprising instructions stored in the memory device to determine the status of each of the target organizational entities and assign the insurable event as a function of the status, wherein the status includes availability and workload indications of each of the target organizational entities.
35

5. The system as in any of claims 1-4, wherein instructions stored in the memory device to select outcomes for each of the patterns comprises instructions stored in the memory device to logically combine a plurality of attributes of each of the patterns to select a respective outcome.

5 6. The system of claim 5, wherein instructions stored in the memory device to logically combine a plurality of attributes comprises instructions stored in the memory device to apply predetermined characteristic attributes to the properties of the insurable event, wherein the characteristic attributes are characteristic definitions associated with each of the patterns.

10 7. The system as in any of claims 1-6, further comprising:
instructions stored in the memory device to identify the insurable event as an exception when assignment to the target organizational entity fails; and
instructions stored in the memory device to identify and assign the insurable event identified as an exception to an exception organizational entity.

15 8. The system as in any of claims 1-7, further comprising instructions stored in the memory device to allocate credit for the insurable event to a proper area of an insurance organization based on assignment of the insurable event to one of the target organizational entities.

20 9. The system as in any of claims 1-8, wherein the instructions stored in the memory device to assign the insurable event comprise instructions stored in the memory device to assess the capability of the ~~target~~ organizational entities based on at least one of the properties or the pattern result or combinations thereof, wherein the properties include claim complexity.

25 10. A method of analysis, management and assignment of an insurable event, the method comprising:
storing data associated with an insurable event in a memory device that is accessible with a computer;
the computer matching data associated with an insurable event to a plurality of
30 predetermined patterns to divide the insurable event into segments;
the computer analyzing the data matched to each of the determined patterns to select at least one outcome for each of the segments, wherein the at least one outcome is selected from a group of predetermined outcomes to be descriptive of the matched data;
the computer aggregating the outcomes to select a pattern result that is indicative of
35 the determined patterns considered in totality;
the computer identifying a list of target organizational entities as a function of at least one of the data or the pattern result or the combination thereof; and

the computer assigning the insurable event to a target organizational entity from the list that has the capability to process the insurable event.

5 11. The method of claim 10, wherein the computer aggregating the outcomes comprises the computer selecting the pattern result from among a group of predetermined pattern results stored in the memory device, the pattern result selected to be descriptive of the segment.

10 12. The method as in any of claims 10-11, wherein the computer matching data comprises the computer comparing characteristics included in each of the patterns to the data.

13. The method as in any of claims 10-12, wherein the computer analyzing the data comprises the computer comparing variables in the data with characteristic definitions stored in the memory device, the characteristic definitions associated with each of the determined patterns.

15 14. The method as in any of claims 10-12, wherein computer analyzing the data comprises the computer selecting a characteristic that is descriptive of a variable based on a characteristic definition that is applied to the variable, the characteristic definition stored in the memory device in association with at least one of the determined patterns.

20 15. The method of claim 14, wherein the computer analyzing the data comprises logically aggregating the selected characteristics within a determined pattern to determine the outcome to select for that pattern.

25 16. The method of any of claims 10-12, wherein the computer analyzing the data matched to each of the determined patterns comprises:

the computer comparing variables in the data with predetermined characteristic definitions associated with each of the determined patterns;

the computer selecting an attribute descriptive of each of the variables; and

30 the computer logically aggregating the attributes to select the outcome for each of the patterns.

17. The method of claim 16, wherein the computer selecting an attribute comprises the computer selecting each of the attributes from among a group of predetermined attributes stored in the memory device.

35

18. The method as in any of claims 10-17, wherein the computer identifying a list of target organizational entities comprises the computer comparing properties determined based on at

least one of the stored data or the pattern result or combinations thereof to a plurality of assignment templates representative of a respective plurality of target organization entities.

5 19. The method as in any of claims 10-18, wherein the computer assigning the insurable event to a target organizational entity comprises the computer considering the availability and workload of the target organizational entity and the computer assigning the insurable event as a function of the availability and workload.

10 20. The method as in any of claims 10-19, further comprising the computer assigning the insurable event to an exception organizational entity when assignment of the insurable event to a target organizational entity fails.

21. A system to perform analysis, management and assignment of an insurable event, the system comprising:

15 a properties identification module executable with a computer, the properties identification module operable to determine properties associated with an insurable event as a function of data related to the insurable event and categorization of the insurable event;

20 an organizational entity identification module executable with the computer, the organizational entity identification module operable to identify a target organizational entity as a function of the properties determined with the properties identification module and availability of the target organizational entity;

25 an assignment module executable with the computer, the assignment module operable to assign the insurable event to the target organizational entity identified with the organizational entity identification module as a function of the workload of the target organizational entity; and

an exception module executable with the computer, the exception module operable to assign insurable events identified as exceptions by the organizational entity identification module to an exception target organizational entity.

30 22. The system of claim 21, further comprising a pattern analyzer system executable with the computer, the pattern analyzer system configured to segment the insurable event using patterns stored in the computer, the pattern analyzer system also configured to select predetermined outcomes for each of the patterns, wherein the outcomes are logically combinable by the pattern analyzer system to select a predetermined result that is provided to the properties identification module as an
35 additional property associated with the insurable event.

23. The system of claim 22, wherein the outcomes are selected based on logical combination of attributes by the pattern analyzer system, the attributes are selected by the pattern analyzer system based on application of predetermined characteristic attributes to the data of the insurable event, wherein the characteristic attributes are associated with each of the patterns.

5

24. The system as in any of claims 21-23, wherein the properties identification module is configured to categorize the insurable event in one of a plurality of predetermined categories based on execution of predetermined rules that are applied to the properties.

10

25. The system as in any of claims 22 or 23, wherein the properties identification module comprises a multiple pattern component executable with the computer to cache and rank a plurality of properties determined by the pattern analyzer system for the insurable event, wherein the properties are ranked according to a predetermined criteria indicative of importance so that the higher ranked properties are utilized by the modules.

15

26. The system as in any of claims 21-25, wherein the properties identification module comprises an organizational entity category module executable with the computer, the organizational entity category module is configured to execute instructions to identify a predetermined category of organizational entities based on the determined properties.

20

27. The system as in any of claims 21-26, wherein the organizational entity identification module comprises an organizational list component executable with the computer, the organizational list component is configured to apply a predetermined assignment template to the determined properties to develop a list of target organizational entities, wherein the assignment template includes selection criteria indicative of select properties.

25

28. The system as in any of claims 21-27, wherein the organizational entity identification module comprises an organizational entity availability component executable with the computer, the organizational entity availability component is configured to execute instructions to determine the current and future availability of an organizational entity based on the estimated time to complete processing of the insurable event.

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29. The system as in any of claims 21-28, wherein the assignment module comprises a load balance component executable with the computer, the load balance component is configured to execute instructions to determine the workload of the target organizational entity based on the quantity and complexity of insurable events already assigned to the target organizational entity and based on a workload capacity.

35

30. The system as in any of claims 21-29, wherein the assignment module comprises a load balance component executable with the computer, the load balance component is configured to execute instructions to adjust a workload capacity of the target organizational entity based on assignment of insurable events and completion of insurable events.

31. The system as in any of claims 21-30, wherein the assignment module comprises an automatic assignment component executable with the computer, the automatic assignment module is configured to execute instructions to analyze the determined properties to confirm that the target organizational entity is capable of processing the insurable event.

32. The system as in any of claims 21-31, further comprising an allocation module executable with the computer, the allocation module configured to allocate credit for an insurable event to a proper area of an insurance organization as a function of assignment of the insurable event by one of the assignment module and the exception module.

33. A method of analysis, management and assignment of an insurable event, the method comprising:

storing data associated with an insurable event in a memory device that is accessible with a computer;

the computer categorizing the insurable event as a function of the stored data;

the computer selecting a target organizational entity with capability to handle the insurable event as a function of the categorization; and

the computer assigning the insurable event to the target organizational entity.

34. The method of claim 33, wherein categorizing the insurable event comprises:

the computer matching data associated with the insurable event to a plurality of predetermined patterns to divide the insurable event into segments;

the computer logically combining outcomes from each of the patterns;

the computer selecting a pattern result used to categorize the insurable event based on the combined outcomes, wherein the pattern result is selected from among a group of predetermined pattern results to be indicative of the segment.

35. The method of claim 34, wherein logically combining the outcome comprises, the computer analyzing the data matched to each of the determined patterns to select an outcome for each of the patterns, wherein the outcome is selected from a group of predetermined outcomes to be indicative of data associated with the pattern.

36. The method of any of claims 34-35, wherein analyzing the data comprises:
comparing variables in the data with predetermined characteristic attributes
associated with each of the determined patterns;
5 selecting an attribute descriptive of each of the variables; and
logically aggregating the attributes to select the outcome for each of the patterns.

37. The method of claim 36, wherein selecting an attribute comprises selecting each of
the attributes from among a group of predetermined attributes stored in the computer.

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38. The method as in any of claims 34-36, wherein matching the data comprises
comparing characteristics included in each of the patterns to the data.

15

39. The method as in any of claims 33-38, wherein categorizing the insurable event
comprises the computer obtaining properties of the insurable event, wherein the properties include
line of business and jurisdiction.

20

40. The method as in any of claims 33-39, wherein categorizing the insurable event
comprises the computer selecting an organizational entity category that includes the target
organizational entity.

25

41. The method of claim 40, wherein categorizing the insurable event comprises the
computer developing a list of a plurality of organizational entities within the selected organizational
entity category.

42. The method as in any of claims 33-41, wherein selecting a target organizational entity
comprises the computer comparing properties determined as a function of the stored data to a plurality
of assignment templates representative of a respective plurality of organization entities.

30

43. The method as in any of claims 33-42, wherein assigning the insurable event to a
target organizational entity comprises the computer considering the availability and workload of the
target organizational entity and the computer assigning the insurable event as a function of the
availability and workload.

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44. The method as in any of claims 33-43, further comprising the computer assigning the
insurable event to an exception organizational entity when the insurable event is identified as an
exception.

45. A system for analysis, management and assignment of an insurable event, the system comprising:

a memory device;

5 instructions stored in the memory device to store data associated with an insurable event;

instructions stored in the memory device to identify properties associated with the stored data, wherein the properties include line of business and jurisdiction;

10 instructions stored in the memory device to determine additional properties from the stored data that include categorization of the insurable event;

instructions stored in the memory device to identify a target organizational entity as a function of the properties; and

instructions stored in the memory device to assign the insurable event to the target organizational entity.

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46. The system of claim 45 wherein instructions stored in the memory device to determine additional properties comprises:

instructions stored in the memory device to divide an insurable event into a plurality of segments by matching data associated with the insurable event to a plurality of predetermined patterns;

20

instructions stored in the memory device to select outcomes from among a group of determined outcomes for each of the segments as a function of the data associated with the insurable event, wherein the outcome is selected to be indicative of the data associated with each of the patterns; and

25

instructions stored in the memory device to aggregate the outcomes to select a pattern result, wherein the pattern result is a property selected from among a group of predetermined pattern results to be indicative of the segment.

47. The system of claim 46, wherein instructions stored in the memory device to divide the insurable event into a plurality of segments comprises:

30

instructions stored in the memory device to identify one of a plurality of pattern types for each of the segments; and

instructions stored in the memory device to match the patterns within each of the pattern types to the insurable event.

35

48. The system of claim 47, further comprising instructions stored in the memory device to select an outcome from one of the patterns in each of the pattern types for aggregation to generate the pattern result.

5 49. The system as in any of claims 47-48, further comprising instructions stored in the memory device to generate a plurality of pattern results for the insurable event by sequential selection of each outcome from each of the pattern types for aggregation when a plurality of patterns within at least one of the pattern types are matched to the insurable event.

10 50. The system as in any of claims 45-49, wherein the insurable event is an insurance claim.

15 51. The system as in any of claims 45-50, further comprising instructions stored in the memory device to determine the status of the target organizational entity and assign the insurable event as a function of the status, wherein the status includes availability and workload of the target organizational entity.

20 52. The system as in any of claims 45-51, further comprising:
instructions stored in the memory device to identify the insurable event as an exception when assignment to the target organizational entity fails; and
instructions stored in the memory device to identify and assign the insurable event identified as an exception to an exception organizational entity.

25 53. The system as in any of claims 45-52, further comprising instructions stored in the memory device to allocate credit for the insurable event to a proper area of an insurance organization as a function of the assignment of the insurable event to the target organizational entity.

30 54. The system as in any of claims 45-53, further comprising instructions stored in the memory device to segment the insurable event by matching the data to a plurality of patterns arranged in a plurality of pattern types to determine additional properties associated with the stored data.

35 55. The system as in any of claims 45-54, further comprising:
instructions stored in the memory device to match the data to a plurality of patterns;
and
instructions stored in the memory device to determine outcomes from the patterns and aggregate the outcomes to generate a pattern result that is a property associated with the stored data.

56. A system for analysis, management and assignment of an insurable event, the system comprising:

a server computer; and

5 a database in communication with the server computer, wherein properties associated with an insurable event are storable in the database, the properties include entered data and categorization of the insurable event;

wherein the server computer is operable to identify an organizational entity as a function of the properties,

10 the insurable event assignable by the server computer to the identified organizational entity as a function of at least one of workload and availability of the organizational entity.

57. The system of claim 56, further comprising a rules engine executable by the server computer, wherein the rules engine includes a properties identification module, an organizational entity identification module, an assignment module and an exception module.

15

58. The system as in any of claims 56-57, wherein the server computer is operable to determine an organizational entity category as a function of the properties, wherein the organizational entity is included in the organizational entity category.

20

59. The system as in any of claims 56-58, wherein the server computer is operable to trigger operation of a pattern analyzer system, the pattern analyzer system operable to provide pattern results as part of the properties, wherein the organizational entity is identified as a function of the pattern results.

25

60. The system as in any of claims 56-59, wherein the server computer is operable to compare a plurality of assignment templates with the properties of the insurable event to generate an organizational entity list that includes the identified organizational entity.

30

61. The system as in any of claims 56-60, wherein the server computer is operable to evaluate the insurable event in view of the identified organizational entity to determine if at least one of oversight, technical support and an additional organizational entity is needed.

35

62. The system as in any of claims 56-61, wherein the server computer is operable to allocate credit for handling the insurable event to a proper area of an insurance organization.

63. The system as in any of claims 56-62, wherein the server computer is operable to assign the insurable event to an exception organizational entity when the insurable event is identified as an exception by the server computer.

5 64. The system as in any of claims 56-63, further comprising a data entry terminal in communication with the server computer, the data entry terminal operable to initiate storage of data related to the insurable event in the database.

10 65. The system as in any of claims 56-64, further comprising an insurable event handler terminal in communication with the server computer, the insurable event handler terminal operable to communicate with the server computer and provide indication of assignment of the insurable event.

15 66. The system as in any of claims 56-65, wherein the insurable event is an insurance claim.

67. A system to analyze, manage and assign insurable events, the system comprising:
a memory device;

20 instructions stored in the memory device to divide an insurable event into a plurality of segments by matching data associated with the insurable event to a plurality of predetermined patterns;

instructions stored in the memory device to select outcomes from among a group of determined outcomes for each of the segments as a function of the data associated with the insurable event, wherein the outcome is selected to be indicative of the data associated with the pattern;

25 instructions stored in the memory device to aggregate the outcomes to select a pattern result, wherein the pattern result is selected from among a group of predetermined pattern results to be indicative of the segment; and

instructions stored in the memory device to assign the insurable event to an organizational entity based on the pattern results.

30 68. The system of claim 67, further comprising:

instructions stored in the memory device to identify one of a plurality of pattern types for each of the segments; and

35 instructions stored in the memory device to match the patterns within each of the pattern types to the insurable event.

69. The system of claim 68, further comprising instructions stored in the memory device to select one of a predetermined group of outcomes for each of the patterns in each of the pattern types for aggregation to generate the pattern result.

5 70. The system of claim 69, further comprising instructions stored in the memory device to generate a plurality of pattern results for the insurable event by sequential selection of each outcome from each of the pattern types for aggregation when a plurality of patterns within at least one of the pattern types are matched to the insurable event.

10 71. The system as in any of claims 67-70, wherein the insurable event is an insurance claim.

72. A method of analyzing, managing and assigning insurable events, the method comprising:

15 matching data associated with an insurable event to a plurality of predetermined patterns to divide the insurable event into segments;

analyzing the data matched to each of the determined patterns to select an outcome for each of the segments, wherein the outcome is selected from a group of predetermined outcomes to be indicative of the pattern;

20 aggregating the outcomes to generate a pattern result; and

assigning the insurable event to an organizational entity based on the pattern result.

73. The method of claim 72, wherein matching the data comprises comparing characteristics included in each of the patterns to the data.

25

74. The method of claim 72, wherein analyzing the data comprises comparing variables in the data with characteristic attributes associated with each of the determined patterns.

75. The method of claim 74, wherein comparing variables comprises selecting a
30 characteristic indicative of a variable based on a characteristic attribute associated with the variable.

76. The method of claim 75, wherein analyzing the data comprises selecting an outcome from among a predetermined group of possible outcomes based on logical aggregation of the selected characteristics within a determined pattern.

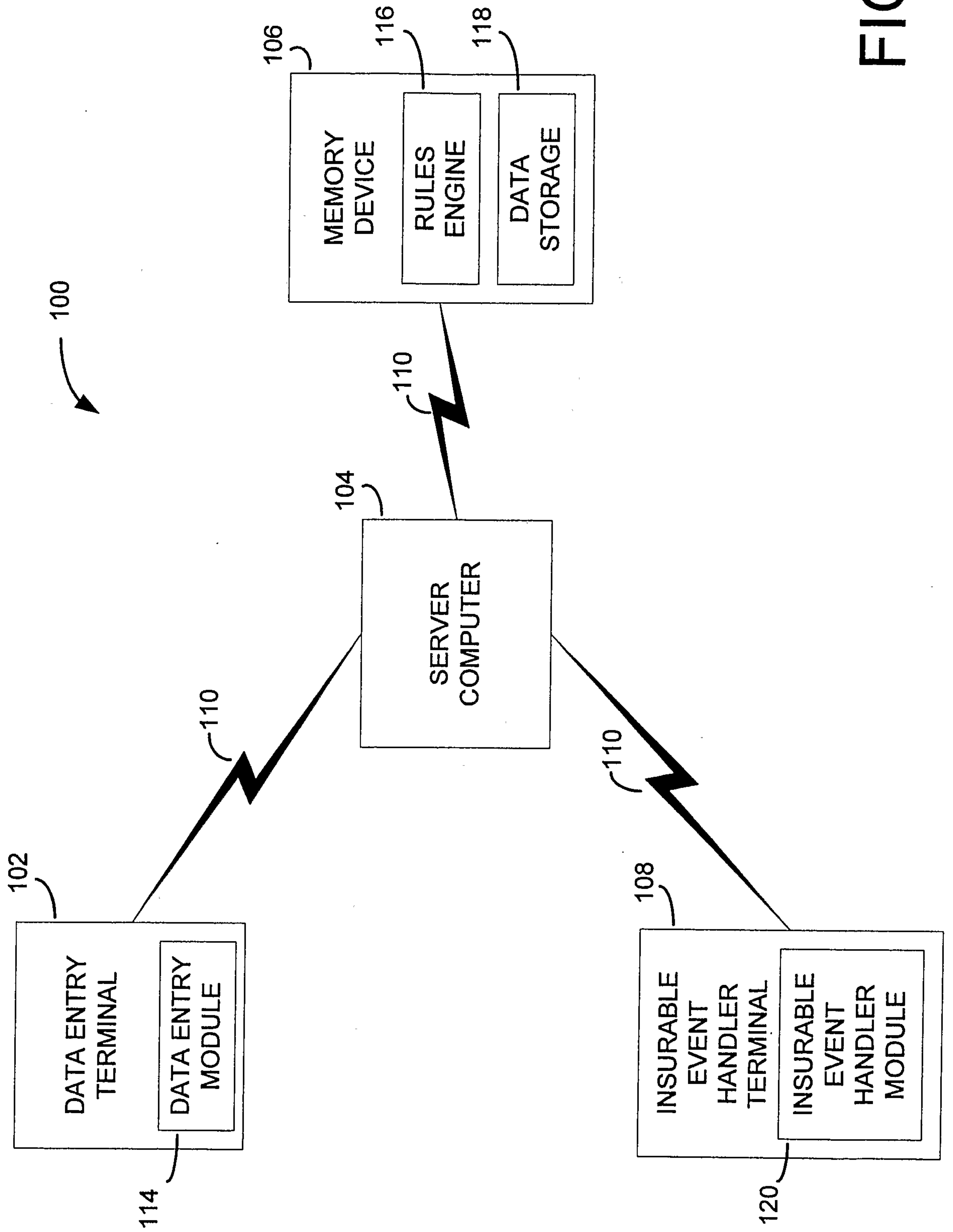
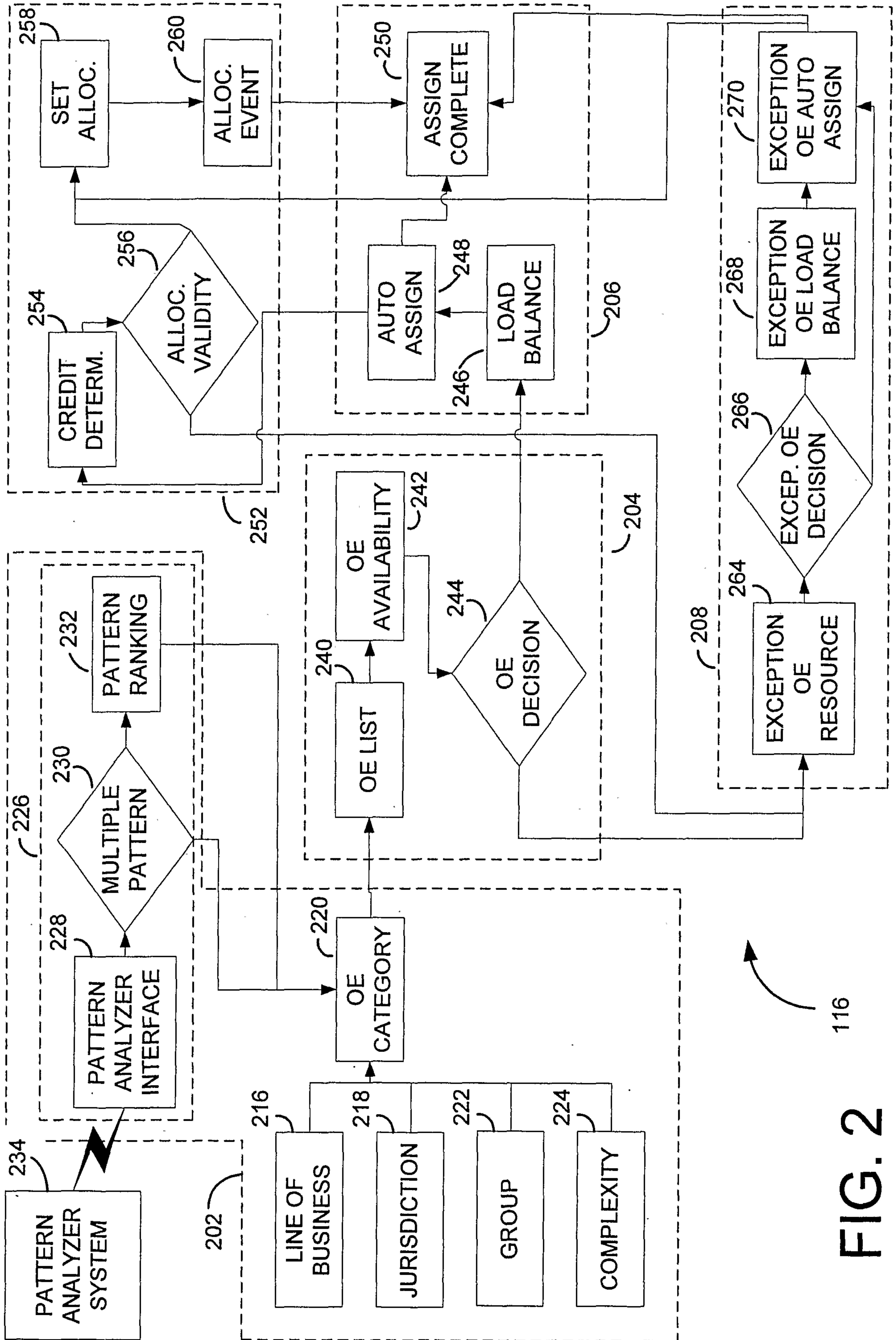


FIG. 1



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FIG. 2

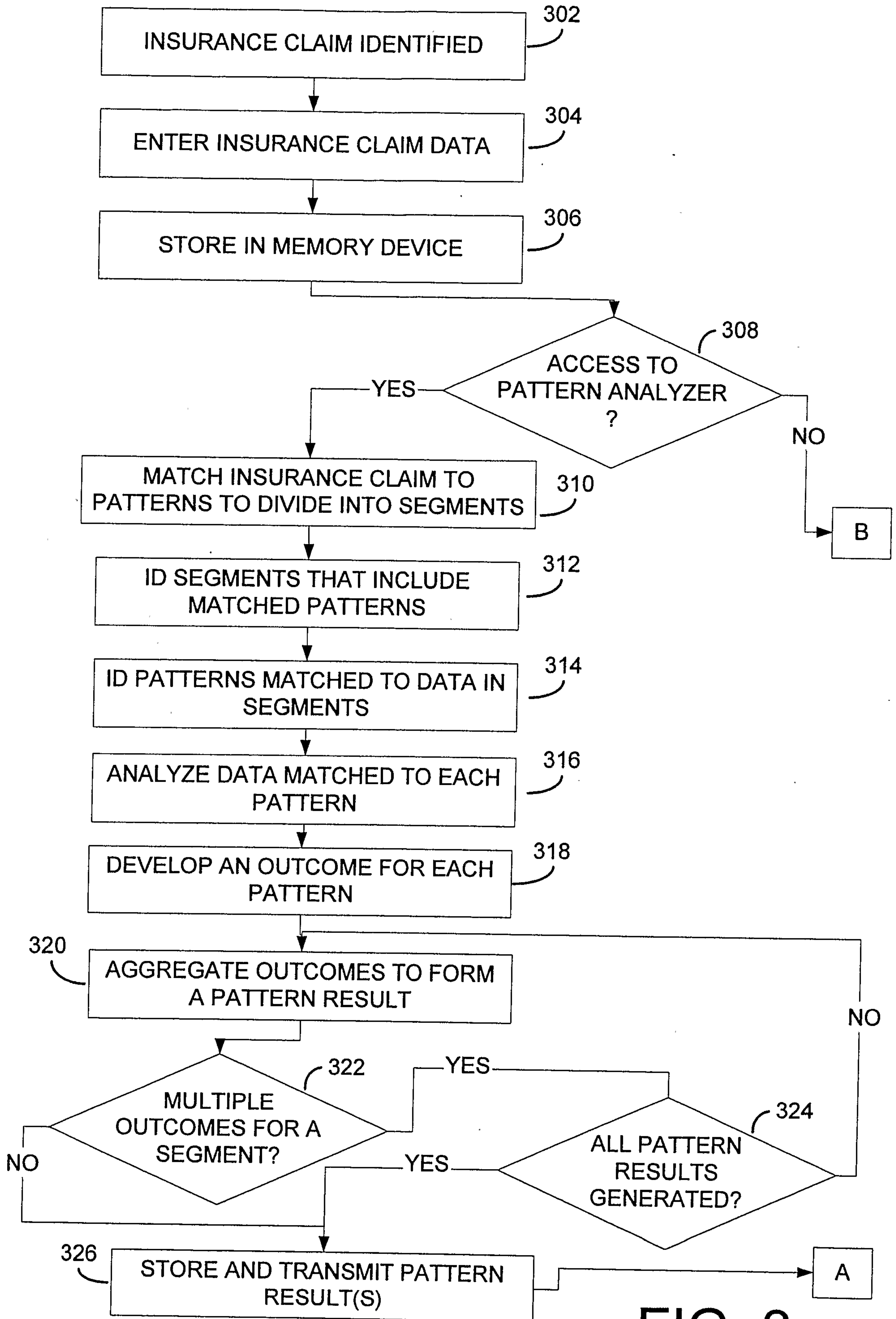


FIG. 3

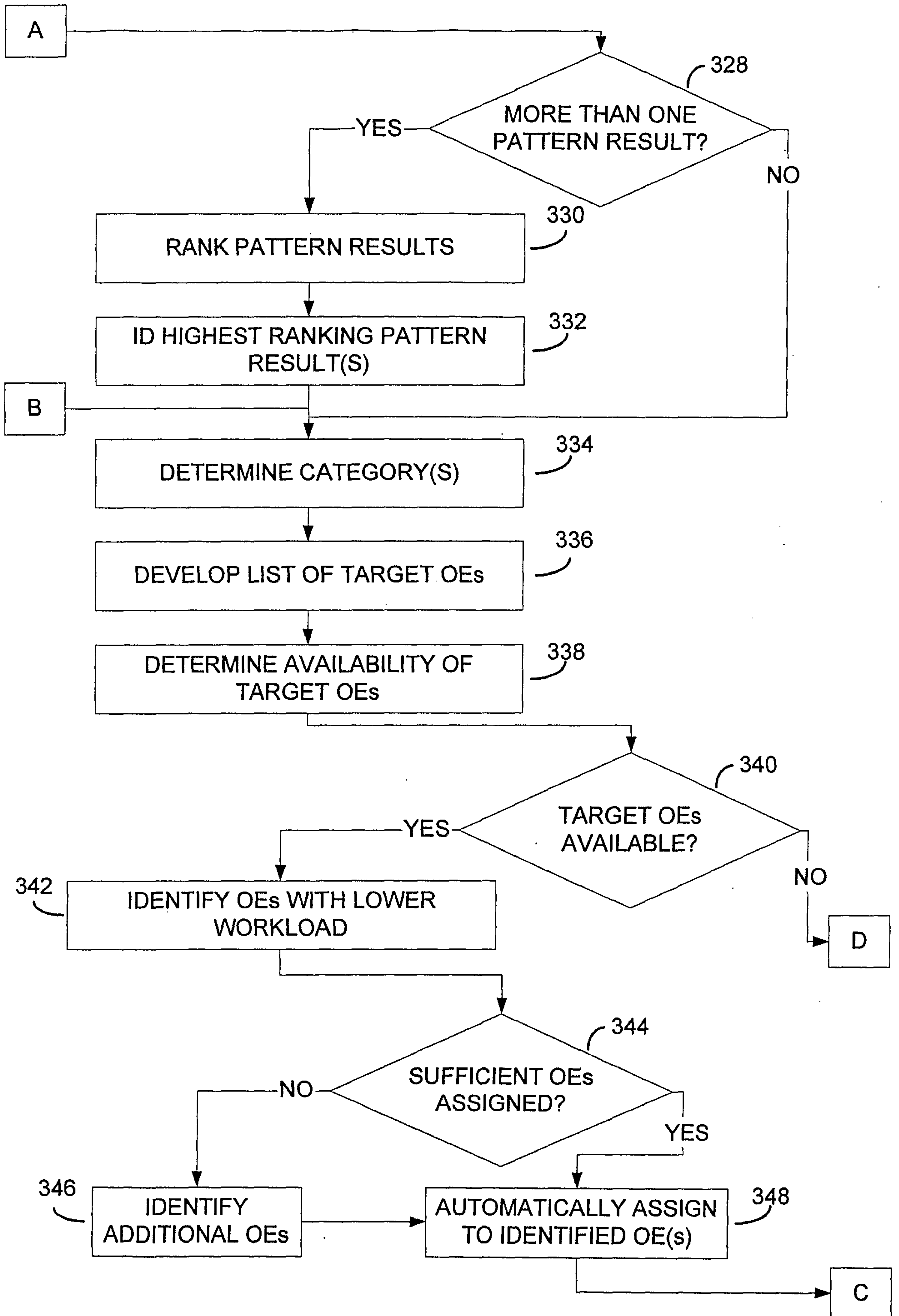


FIG. 4

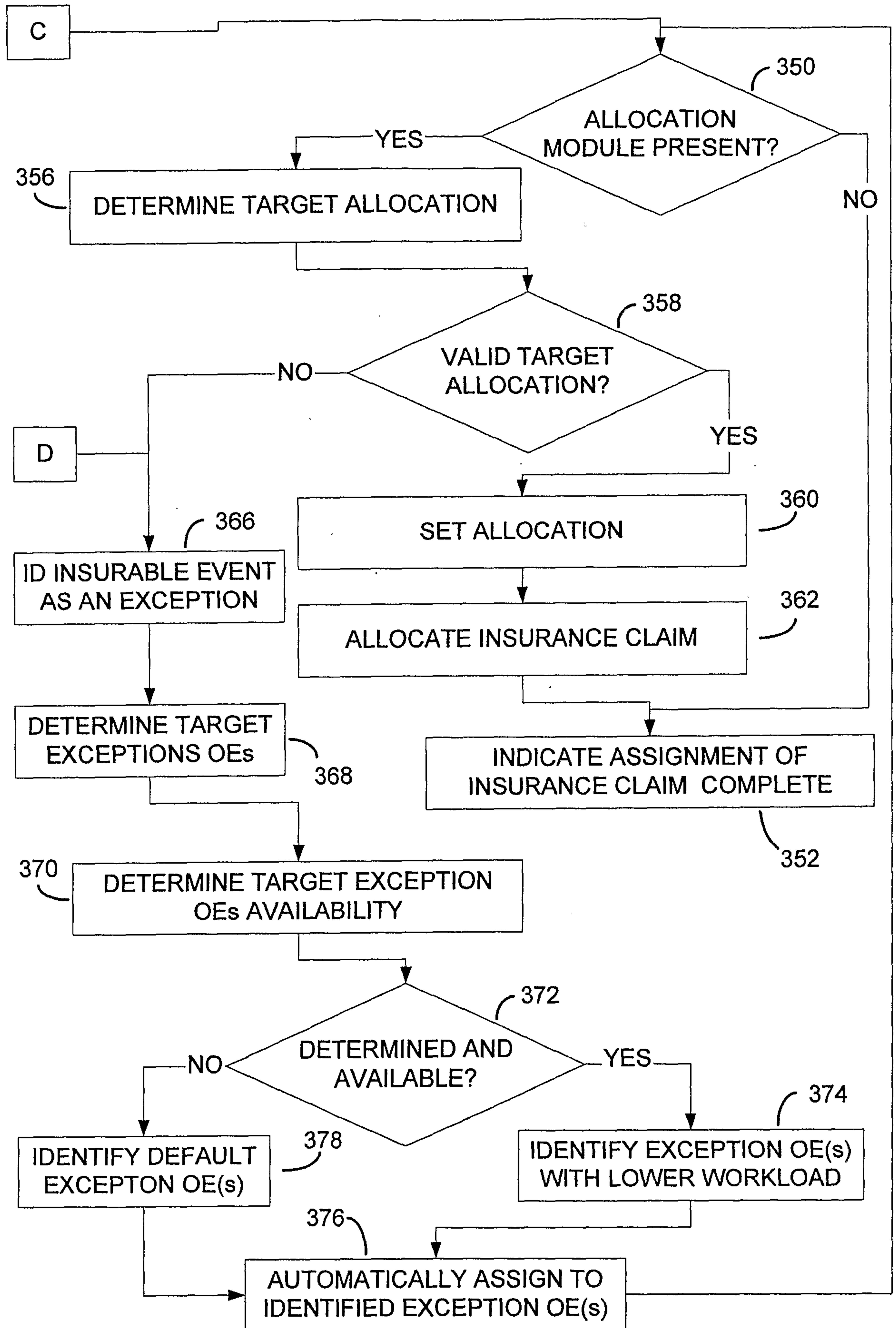


FIG. 5

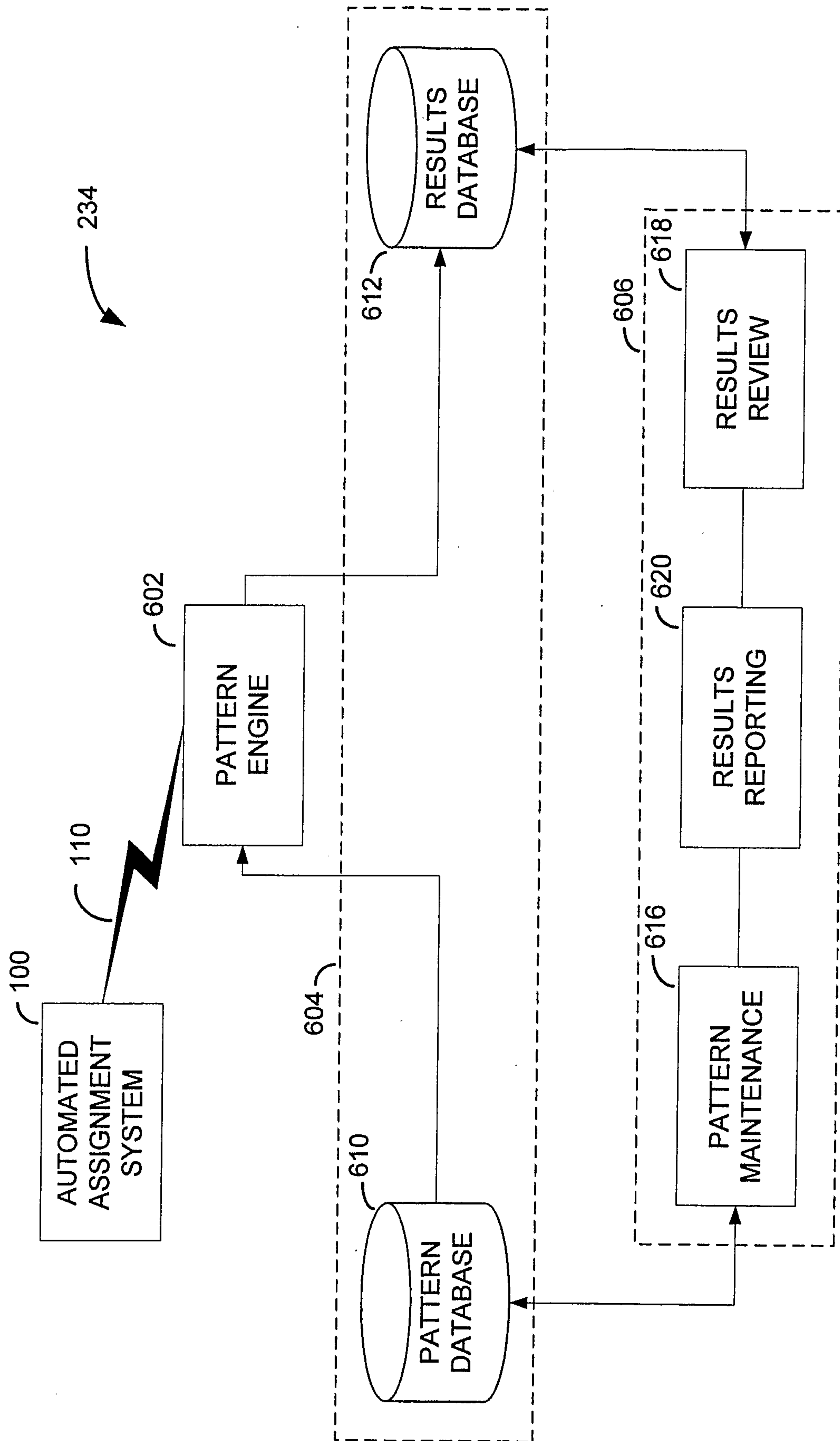


FIG. 6

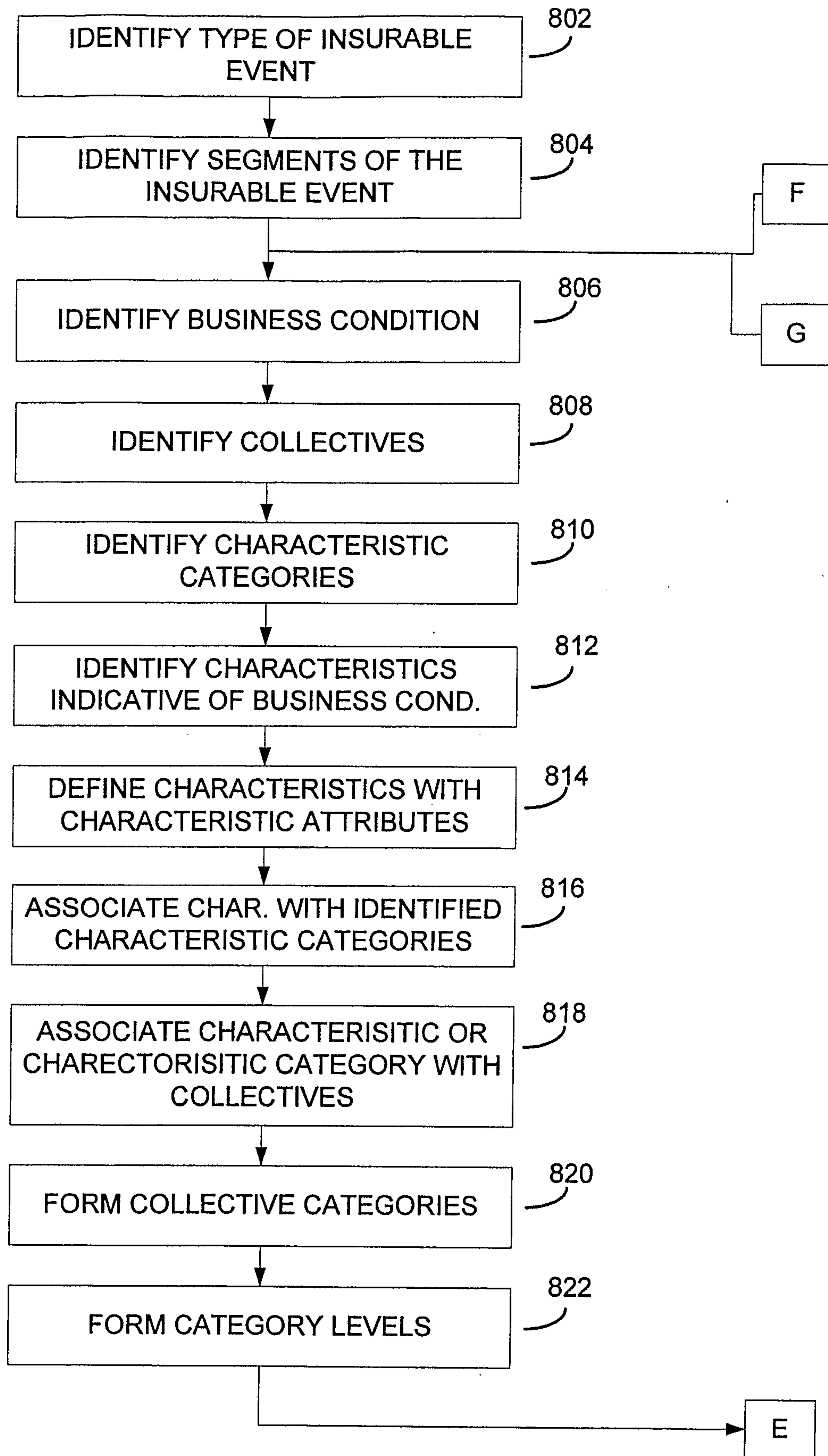


FIG. 8

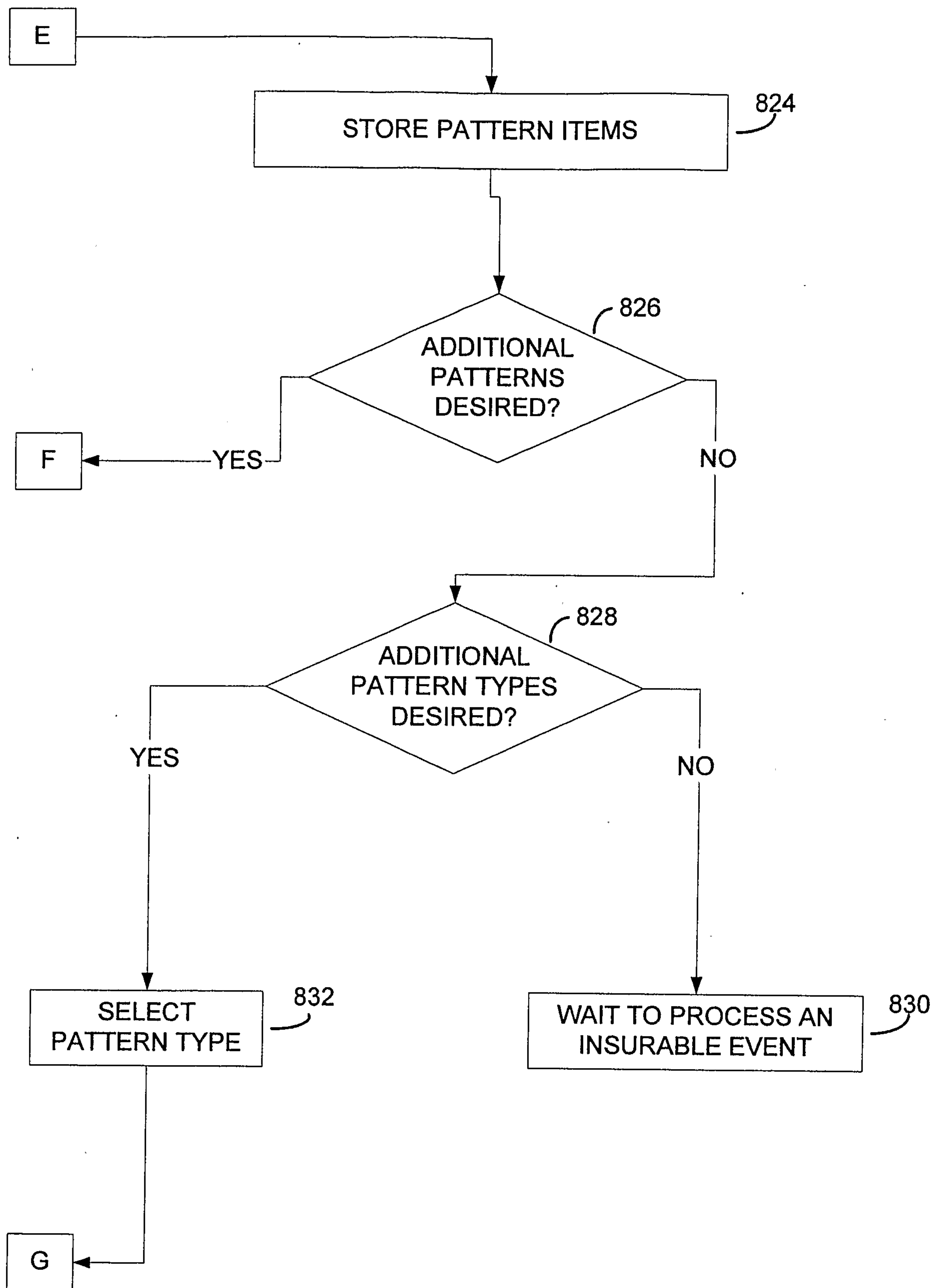


FIG. 9

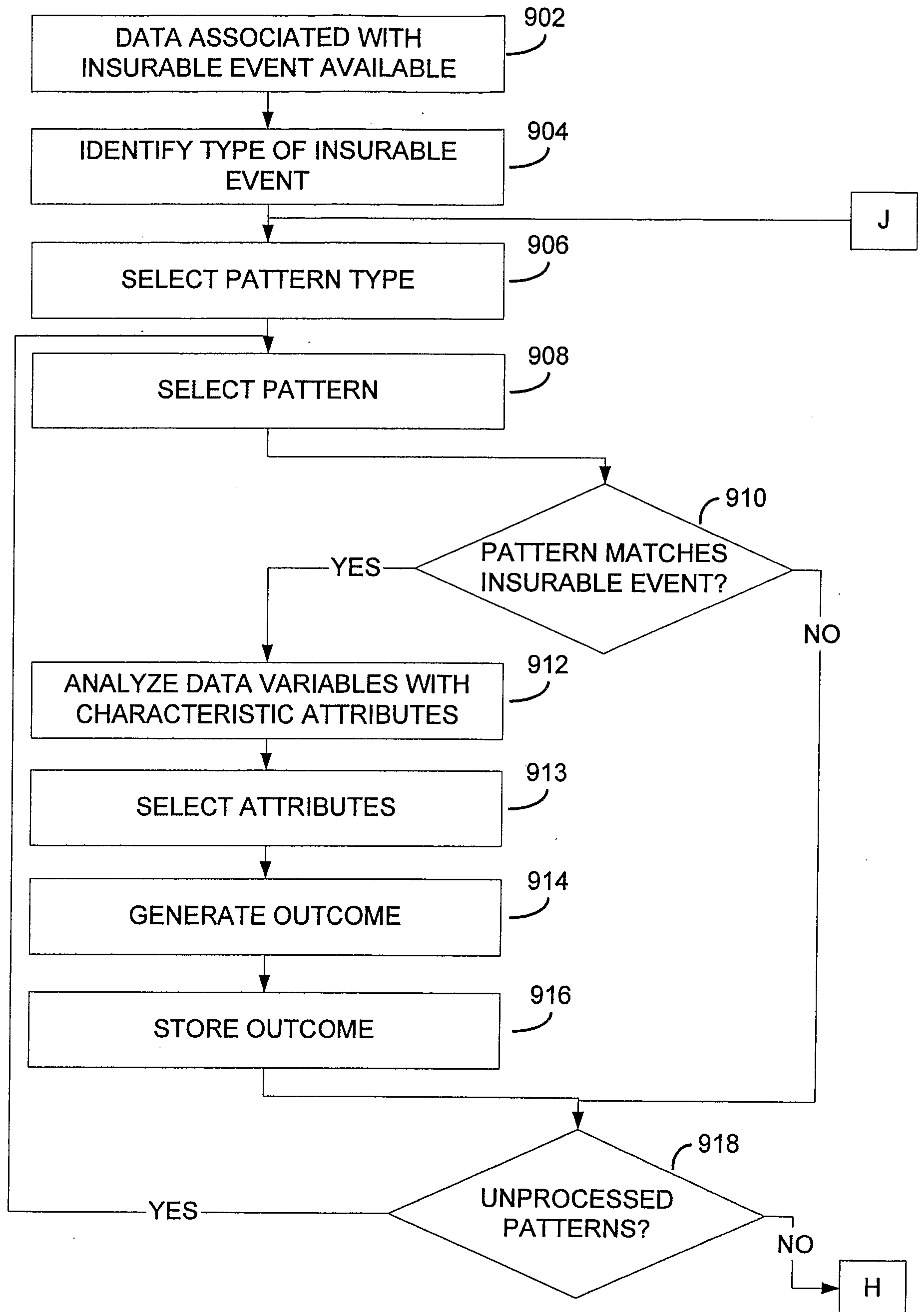


FIG. 10

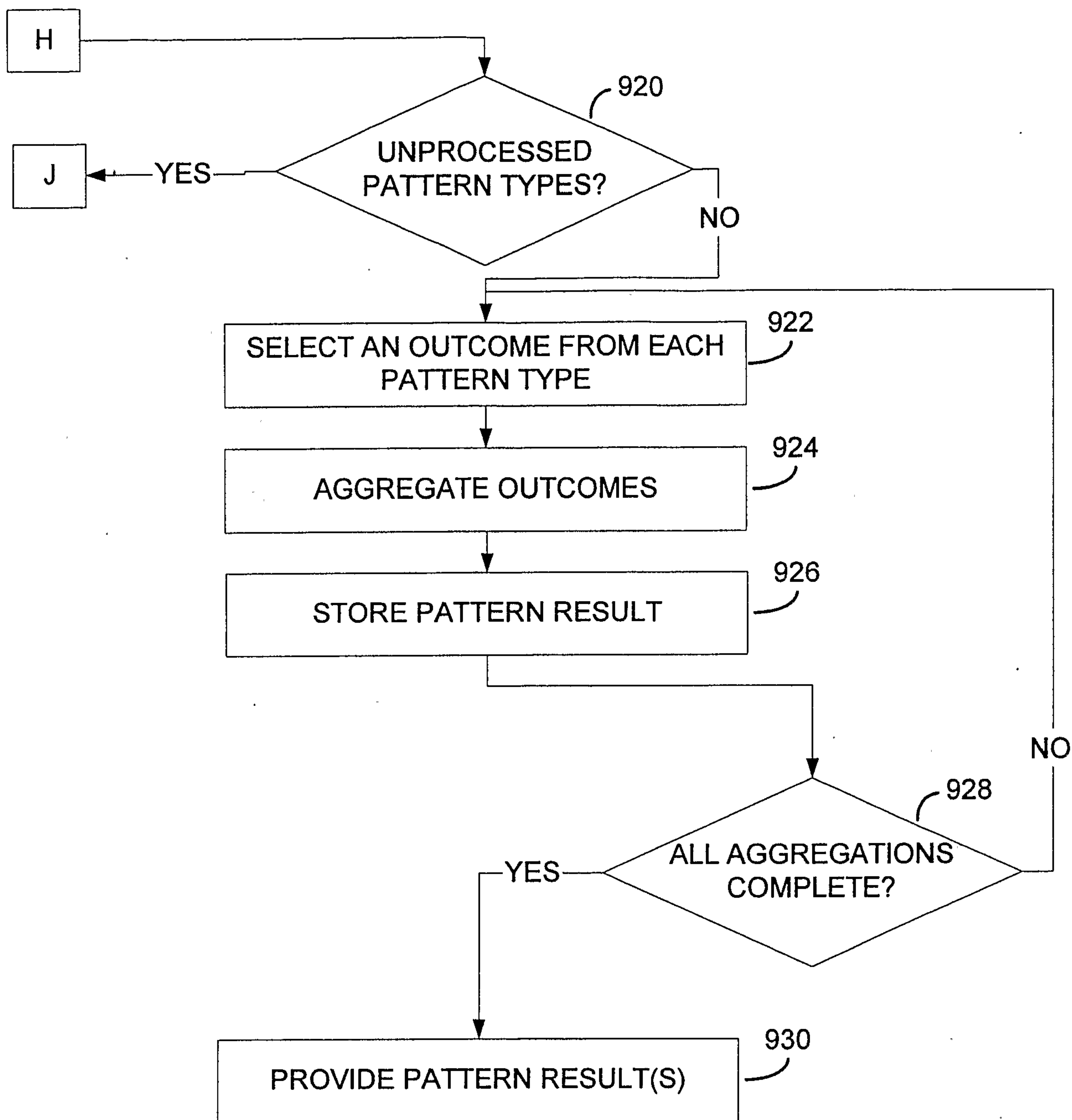


FIG. 11