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(54) Title: LOYALTY POINT SYSTEM AND METHOD FOR ALLOCATING LOYALTY POINTS

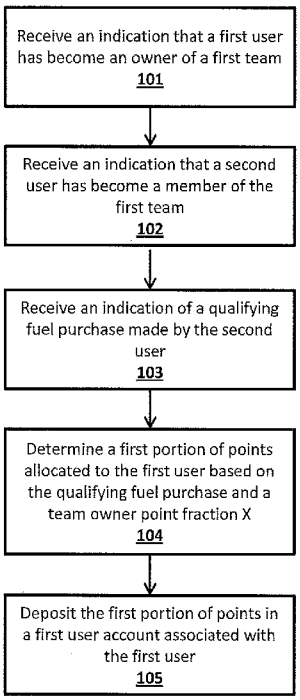

Figure 1

(57) Abstract: Implementations of the disclosed subject matter provide methods and systems for allocating loyalty points among a plurality of users in a loyalty point system. A method for allocating loyalty points among a plurality of users in a loyalty point system may include receiving an indication that a first user has become an owner of a first team. An indication may be received that a second user has become a member of the first team. An indication may be received that a qualifying fuel purchase has been made by the second user. Next, a first portion of points allocated to the first user may be determined based on the qualifying fuel purchase and a team owner point fraction X. The first portion of points may be deposited in a first user account associated with the first user.

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LOYALTY POINT SYSTEM AND METHOD FOR ALLOCATING LOYALTY POINTS

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims priority to U.S. Provisional Application Serial No. 62/181,490 filed June 18, 2015, the entire disclosure of which is hereby incorporated by reference. This application also claims priority to U.S. Provisional Application Serial No. 62/181,466 filed June 18, 2015, the entire disclosure of which is hereby incorporated by reference.

TECHNICAL FIELD OF THE INVENTION

[0002] The present invention relates to a loyalty point system and a method for allocating loyalty points among users in the loyalty point system.

BACKGROUND

[0003] In general, loyalty point programs have become popular as consumers wish to receive added benefits in exchange for loyalty to the products and brands they consume. As a result, companies are increasingly focused on incentivizing consumers to be loyal customers in exchange for loyalty points that may be redeemed by consumers for various benefits. Traditional loyalty point systems typically provide a consumer with points in exchange for purchases made by the consumer. In particular, traditional loyalty point programs within the oil and retail fuel industry only reward individual consumers and do not provide any added benefits beyond individual consumer purchases alone.

[0004] Therefore, it would be advantageous to provide a new loyalty point program that provides added benefits to a member such as high value rewards and increased loyalty points for activities other than the member's individual purchases alone.

BRIEF SUMMARY

[0005] According to an embodiment of the disclosed subject matter, a method for allocating loyalty points among multiple users in a loyalty point system may include receiving an indication that a first user has become an owner of a first team. An indication may be received that a second user has become a member of the first team. Next, an indication may be received of a qualifying fuel purchase made by the second user.

Accordingly, a first portion of points allocated to the first user may be determined based on the qualifying fuel purchase and a team owner point fraction X. Then, the first portion of points may be deposited in a first user account associated with the first user.

[0006] According to an implementation of the disclosed subject matter, a system for allocating loyalty points among multiple users in a loyalty point system may include a processor configured to receive an indication that a first user has become an owner of a first team. Next, an indication may be received that a second user has become a member of the first team. An indication of a qualifying fuel purchase made by the second user may be received. Accordingly, a first portion of points allocated to the first user may be determined based on the qualifying fuel purchase and a team owner point fraction X. As a result, the first portion of points may be deposited in a first user account associated with the first user.

[0007] According to an embodiment of the disclosed subject matter, a method for allocating loyalty points among multiple users in a loyalty point system may include receiving, at a mobile device, login information for a first user account associated with a first user. An indication that the first user has become an owner of a first team may be provided. Subsequently, a deposit may be received, in the first user account, of a first portion of points allocated to the first user, wherein the first portion of points is based on a qualifying fuel purchase, made by a second user, and a team owner point fraction X.

[0008] According to an implementation of the disclosed subject matter, a system for allocating loyalty points among multiple users in a loyalty point system may include a processor configured to receive, at a mobile device, login information for a first user account associated with a first user. The processor may be further configured to provide an indication that the first user has become an owner of a first team. Then, a deposit may be received in the first user account of a first portion of points allocated to the first user, wherein the first portion of points is based on a qualifying fuel purchase, made by a second user, and a team owner point fraction X.

[0009] Implementations of the disclosed subject matter provide a process for allocating loyalty points among multiple users in a loyalty point system. The disclosed subject matter provides a new loyalty point program concept that incentivizes loyalty members to form teams and allows those teams to compete for high value rewards, while still maintaining the importance of rewarding the individual user for purchases. By leveraging social media and mobile applications to create teams and invite other potential members in order to

quickly form teams, members and teams within the loyalty point program are able to earn valuable rewards beyond the typical point accrual for individual member purchases alone. This loyalty point system may result in faster and larger point accrual for each member, as well as more interesting and entertaining engagement between members of a loyalty point program. Additional features, advantages, and embodiments of the disclosed subject matter may be set forth or apparent from consideration of the following detailed description, drawings, and claims. Moreover, it is to be understood that both the foregoing summary and the following detailed description are examples and are intended to provide further explanation without limiting the scope of the claims.

BRIEF DESCRIPTION OF THE DRAWINGS

[0010] The accompanying drawings, which are included to provide a further understanding of the disclosed subject matter, are incorporated in and constitute a part of this specification. The drawings also illustrate embodiments of the disclosed subject matter and together with the detailed description serve to explain the principles of embodiments of the disclosed subject matter. No attempt is made to show structural details in more detail than may be necessary for a fundamental understanding of the disclosed subject matter and various ways in which it may be practiced.

[0011] FIG. 1 shows an example process according to an implementation of the disclosed subject matter.

[0012] FIG. 2 shows an example communication flow according to an implementation of the disclosed subject matter.

[0013] FIG. 3 shows an example process according to an implementation of the disclosed subject matter.

[0014] FIG. 4 shows a computer according to an embodiment of the disclosed subject matter.

[0015] FIG. 5 shows a network according to an embodiment of the disclosed subject matter.

DETAILED DESCRIPTION

[0016] In general, loyalty point programs have become popular as consumers wish to receive added benefits in exchange for loyalty to the products and brands they consume. As a result, companies are increasingly focused on incentivizing consumers to be loyal

customers in exchange for loyalty points that may be redeemed by consumers for various benefits. Traditional loyalty point systems typically provide a consumer with points based on purchases made by the consumer. These loyalty points may have a value and may be redeemed for benefits such as gift certificates, discounts on future purchases, products, etc.

[0017] With the popularity of social networks, creation of a loyalty point program which includes a social networking feature has become desirable to companies. The presently disclosed subject matter provides a new loyalty point system and methods for allocating points among users in the loyalty point system. The presently disclosed loyalty point program features a two-tier marketing approach based on teams. Each user of the loyalty point program may be an owner of a team as well as a member of another team. In general, team owners may reap the most rewards; however, members of a high performing team may also receive sizable benefits. Ideally, a user would participate in the program as both a team owner and a team member (although not necessary) as participation in both would result in the largest point accrual and potentially the largest discounts on future purchases. As described herein, the loyalty point system may be a two-tier system. A two-tier system may refer to the architecture of the relationship of each user relative to other users. For example, as described in more detail below, a user may be an owner of one team and the same user may be a member of another team. Accordingly, the user may earn points according to his ownership of a team and he may also earn points according to his membership of another team. This earning of points via two streams (ownership of a team and membership of a team) within the loyalty point program is referred to as a two-tier loyalty point system.

[0018] The present disclosure provides methods and systems for allocating loyalty points among a plurality of users in a loyalty point system. In general, a loyalty point system may be implemented in a mobile application, a website, and the like, and may be a system for allocating points among users of a loyalty point program. For example, a loyalty point system mobile application may include social media login capability and/or a typical login process/protocol. The mobile application may track all key elements of the loyalty point program (e.g., team owners, member lists, contests, volume thresholds, team rankings, user contributions, user status, points earned, discounts, point expiration alerts, etc.). While a loyalty point program can be associated with any type of brand, retailer, service provider, and/or product offering, etc., an example used throughout is a loyalty point program associated with a fuel retailer. As a specific example, the loyalty point

system may be a retail fuel loyalty program for rewarding loyal customers for fuel and non-fuel purchases.

[0019] As an example, a user, Alvin, may download an application associated with the loyalty point system on his mobile device. Upon registering for a user account within the application, Alvin may automatically become the owner of a team which he may name Alvin's Club. Alvin may wish to add members to his team. Another user may be become a member of team Alvin's Club by accepting an invitation to join Alvin's team based on an invitation initiated by Alvin or the user may search for Alvin's team and request to become a member. As an example, Alvin's brother, Ben, may also be a user in the loyalty point system. Alvin may send an invitation to Ben inviting Ben to become a member of Alvin's team Alvin's Club. Ben may accept this invitation and become a member of Alvin's Club. As a result, when Ben makes a qualifying fuel purchase, Alvin may receive a certain portion of points based on Ben's qualifying fuel purchase. Similarly, when Ben makes a qualifying non-fuel purchase, Alvin may receive a certain portion of points based on Ben's qualifying non-fuel purchase. These points may be deposited in the user account associated with Alvin. In another implementation, Alvin may not receive any points for Ben's non-fuel purchases. In this case, Ben may receive all the points associated with his non-fuel purchase and these points may be deposited in a user account associated with Ben. In general, the presently disclosed loyalty point system allows Alvin to earn points for fuel purchases made by members of his team, Alvin's Club. In addition, Alvin may earn points for his own purchases, either fuel or non-fuel. And additionally, because each user of the loyalty point system may be a member of a team and an owner of a team, Alvin may be a member of another team and he may earn additional points based on his membership of another team. Points may be earned through various channels for example fuel purchases, non-fuel purchases, winning a competition, meeting a volume threshold, and the like, as described in more detail throughout.

[0020] FIG. 1 shows an example process according to an implementation of the disclosed subject matter. A computer-implemented method for allocating loyalty points among a plurality of users in a loyalty point system may include receiving an indication that a first user has become an owner of a first team, at 101. There may be various ways that a user may become an owner of a team. As an example, a first user may become an owner of a team based on a default setting which automatically creates a team and sets a user as an owner of the team upon initial registration for a user account, by a user, in the

loyalty point system. As another example, a user may indicate (e.g., via a mobile application associated with the loyalty point program) that he wishes to create a team for which he will be the owner. Next, at 102, an indication that a second user has become a member of the first team may be received. A second user may become a member of a team according to various implementations. In an implementation, prior to the step of receiving an indication that the second user has become a member of the first team at 102, a request may be received from the first user to add the second user as a member of the first team. For example, a user may receive an invitation from another user (an owner of a team) to become a member of a team. According to an embodiment, prior to the step of receiving an indication that the second user has become a member of the first team at 102, a request may be received from the second user to add the second user as a member of the first team. As an example, the second user may search and identify (e.g., via a mobile application associated with the loyalty point program) a team which he wishes to join and the user may send a request to become a member of a team. As a result, the system may automatically indicate the user as a member of the team; the system may provide a notification to the owner of the team requiring the owner's approval of the membership request from the user, or the like. In general, teams may be formed via invitation by the owner or via a team signup function that is open to users. In addition, other social media applications may be utilized to facilitate the creation of teams, invitation to team, and membership of users to teams.

[0021] In some cases, team size may be capped so that team owners will seek to replace low performing members with higher performing user once the team size cap is reached. Typically, the more volume a member purchases, the more important that member is to the team. Additionally, an owner may be able to elect whether or not his team is open for public membership signup by users. For example, an owner may not want to dilute his team and therefore he may wish to restrict the public from arbitrarily signing up to his team. This may be implemented by indicating that a team is private (e.g., membership via team owner invitation only) and not open to public, this may be based on a default setting, a system setting, and/or a user setting. Alternatively, a team owner may reject a request for membership from a user. In an implementation, a member of a team may invite another user to join a team of which he is a member.

[0022] Returning to FIG. 1, an indication may be received that the second user has made a qualifying fuel purchase, at 103. As an example, a qualifying fuel purchase may be

a purchase of fuel from a fuel retailer associated with the loyalty point program. For example, the fuel retailer BigOil may have a loyalty point program and a user may earn points by purchasing fuel from any BigOil fuel stations/retailers. Based on the qualifying fuel purchase and a team owner point fraction X, a first portion of points allocated to the first user (i.e., team owner) may be determined, at 104. Then, the first portion of points may be deposited in a user account associated with the first user (i.e., team owner), at 105. Also based on the qualifying fuel purchase of the second user, a second portion of points allocated to the second user may be determined based on the qualifying fuel purchase and a team member point fraction Y. As a result, the second portion of points may be deposited in a second user account associated with the second user. In an embodiment, the team member point fraction Y may be greater than the team owner point fraction X. As used herein, a point fraction (e.g., X or Y) may be in any form suitable for determining a portion of points such as a number between 0 and 1, a percentage, a decimal, a fraction, and the like, and in most cases, X + Y = 1.

[0023] As an example, Alvin and Ben may be users of a mobile application associated with the BigOil loyalty point system. In the loyalty point system, Alvin may be the owner of a team, Alvin's Club, and Ben may be a member of Alvin's Club. Ben may make a qualifying fuel purchase at a BigOil fuel station. As a specific example, Ben may purchase $50 of fuel at a BigOil fuel station and, according to the BigOil loyalty point program, two points may be earned for each dollar spent on fuel. As such, Ben's $50 fuel purchase may earn 100 loyalty points. In addition, for fuel purchases, the team owner point fraction X may be 0.2 and the team member point fraction Y may be 0.8. Accordingly, based on Ben's qualifying fuel purchase of $50 which results in 100 points and the team owner point fraction X = 0.2, a first portion of points allocated to Alvin (i.e., the team owner) may be determined to be 20 points (i.e. $50 earns 100 loyalty points x team owner point fraction 0.2 = 20 points). These 20 points may be deposited in Alvin's user account. Similarly, based on Ben's qualifying fuel purchase of $50 which results in 100 points and the team member point fraction X = 0.8, a second portion of points allocated to Ben (i.e., a team member) may be determined to be 80 points (i.e. $50 earns 100 loyalty points x team member point fraction 0.8 = 80 points). These 80 points may be deposited in Ben's user account.

[0024] Another source of points may be from non-fuel purchases. Non-fuel purchases may be any purchase that is not a qualifying fuel purchase and may include any non-fuel

purchase made in a convenience store, a retail store, a fuel station, online, and any other non-fuel purchase that may qualify for points in a loyalty point program. For example, a retailer associated with the loyalty point program may have the option to market items inside their store by placing a point value on specific items. In this case, the loyalty points earned is based on non-fuel purchases made in the store can be used towards future fuel purchases. As a specific example, a retailer may place 1000 point value on a bottle of wine sold in store. Upon purchase of this bottle of wine by a user, at least a portion of these 1000 points may be allocated to the user. According to an implementation, an indication of a qualifying non-fuel purchase made by the second user (i.e., team member) may be received. As a result, a portion of points allocated to the first user (i.e., team owner) based on the qualifying non-fuel purchase and a team owner point fraction X_1 may be determined. This portion of points may be deposited in the first user account associated with the first user. In addition, a portion of points allocated to the second user (i.e., team member) based on the qualifying non-fuel purchase and a team member point fraction Y_1 may be determined and this portion of points may be deposited in a second user account associated with the second user. As a continuation of the specific example above, Ben may make a non-fuel purchase of $10 at a convenience store at a BigOil fuel station and, according to the BigOil loyalty point program, one point may be earned for each dollar spent on non-fuel purchases. In addition, for non-fuel purchases, the team owner point fraction X_1 may be 0.05 and the team member point fraction Y_1 may be 0.95. Accordingly, based on Ben's qualifying non-fuel purchase of $10, which results in 10 points, and the team owner point fraction $X_1 = 0.05$, a portion of points allocated to Alvin (i.e., the team owner) may be determined to be 0.5 points (i.e. $10 earns 10 points x team owner point fraction 0.05 = 0.5 points). These 0.5 points may be deposited in Alvin's user account. Similarly, based on Ben's qualifying non-fuel purchase of $10, which results in 100 points, and the team member point fraction $Y_1 = 0.95$, a portion of points allocated to Ben (i.e., a team member) may be determined to be 9.5 points (i.e. $10 non-fuel purchase earns 10 points x team member point fraction 0.95 = 9.5 points). These 9.5 points may be deposited in Ben's user account. According to an implementation, for non-fuel purchases, the team owner point fraction X_1 may be 0 and the team member point fraction Y_1 may be 1.0. In this case, based on Ben's qualifying non-fuel purchase of $10, Alvin may receive 0 points and Ben may receive 10 points.

[0025] As mentioned above, each user of the loyalty point system may be an owner of a team and a member of a team. In an implementation, an indication that the second user has become an owner of a second team may be received. In addition, an indication that a third user has become a member of the second team may be received. Further to the example above, Ben (who is a member of Alvin's team, Alvin's Club) may become an owner of his own team, RoadWarriors. Another user, Chris, may become a member of Ben's team, RoadWarriors. As a result, Ben may also earn points based on fuel and/or non-fuel purchases made by Chris according to the implementations described herein.

[0026] Another feature of the disclosed subject matter is the implementation of contests within the loyalty point system. Contests may be used to motivate teams to increase their fuel purchases and/or non-fuel purchases. In general, contests may vary according to various criteria such as duration, team size, geographic location, what is required to be deemed a winner of contest, and any other factor upon which a contest may be based. As an example, if BigOil wants to increase sales of a specific fuel product BigPower, a contest may be implemented to reward the top 10 teams that purchased the most BigPower fuel in the month of June with 1,000,000 points to each team member and team owner. Contests may also be implemented at a member level. For example, the top 10 members that purchased the most BigOil fuel may receive a reward such as a 4 day paid vacation to Cancun, etc. In some cases, winning teams and/or members may be ineligible to win additional contests for a certain amount of time in order to allow other teams and/or members to win. According to an implementation, a method may include determining that the first team is a winner of a competition. This determination may be based on any criteria and/or metric that may be used to define a competition and the requirement(s) for determining that a team and/or member is a winner of the competition. Upon determining that a team and/or member has won a competition, a winner points allocation associated with winning the competition may be determined. The winner points allocation may be a pre-set amount of points, and/or may be based on the criteria for winning. For example, a team that purchased the most BigPower fuel in the month of June may be rewarded with a pre-set winner points allocation of 1,000,000 points. Alternatively, if the winning team (who purchased the most BigPower fuel in the month of June) purchased 100 gallons of BigPower fuel, the team may receive a winner points allocation of 500,000 points, and if the team purchased 200 gallons of BigPower fuel, the team may receive a winner points allocation of 1,000,000 points. In an embodiment, the winner points allocation may be

established prior to the competition and may be communicated to the user and/or teams prior to start of the competition. For example, a notification (e.g., via email, mobile application notification pop-up, etc.) may be provided to user indicating that each team who eclipses 1000 gallons of BigPower fuel will receive 500,000 points, 2000 gallons receives 1,000,000 points, etc.

[0027] Once the winner points allocation has been determined, the winner points allocation may be divided equally among the owner and members of the first team (i.e., the winning team). For example, if the winner points allocation is 1,000,000 points and the team includes 1 owner and 9 members, the winner points allocation of 1,000,000 points would be divided equally by 10 such that each of the owner and members would receive 100,000 points. Next, the divided winner points allocation (e.g., 100,000) may be deposited in the first user account associated with the first user (i.e., team owner). Similarly, the divided winner points allocation (e.g., 100,000) may be deposited in a user account associated with each member (i.e., each team member) of the first team. According to an implementation, the owner and members of a team may be rewarded equally in the amount of points for winning a competition. In some cases, dividing the winner points allocation equally may include rounding up/down to the nearest point as necessary based on the total number of members plus owner of a team.

[0028] Another feature of the disclosed subject matter is the implementation of volume thresholds within the loyalty point system. Owners of teams may be rewarded additional points when their team reaches certain volume thresholds. For example, the first time a team eclipses 1500 liters in one week, the team owner may receive 15,000 points, and upon reaching 3000 liters in one week, the owner may receive 30,000 points. These rewards may be used to incentivize team owners to grow his/her team and directly reward the team owners for attracting more volume and users to the loyalty point program. According to an implementation, it may be determined that a team has met a volume threshold. This determination may be based on any criteria and/or metric that may be used to define a volume threshold and the requirement(s) for determining that a team has satisfied the requirements of a volume threshold. Some examples of volume thresholds may include a minimum spend, minimum number of team members, a minimum amount of fuel purchased, a minimum amount of non-fuel purchased, and the like, and a volume threshold may or may not be associated with a defined time frame for satisfying the volume threshold. Upon determining that a team has met a volume threshold, a volume points

allocation associated with meeting the volume threshold may be determined. The volume points allocation may be a pre-set amount of points, and/or may be based on the criteria for meeting a volume threshold. According to an implementation, the owner may be rewarded when his team meets a volume threshold. As an example, a volume threshold may be based on the amount of fuel purchased by a team and may or may not be tied to a time period. As an example, the first time that a team meets a volume threshold, for example, the first time a team purchases 1500 liters, the team owner may receive a volume points allocation of 15,000 points. Similarly, the first time a team purchases 3000 liters in one week, the owner may receive a volume points allocation of 30,000 points. Accordingly, the volume points allocation may be deposited in the first user account associated with the first user (i.e., the team owner).

[0029] Similar to the volume thresholds implemented for teams described above, volume thresholds may also be implemented for individual users within the loyalty point system. For example, an individual user may also receive a pre-determined amount of points when reaching certain volume thresholds. Some specific examples may include volume threshold 1 = 100 gallons with points earned = 10,000; volume threshold 2 = 500 gallons with points earned = 20,000; volume threshold 3 = 1000 gallons with points earned = 30,000; volume threshold 4 = 2000 gallons with points earned = 40,000, etc. As a specific example, Ted may be a user of the loyalty point system and when Ted reaches the volume threshold of 100 gallons purchased, he may receive 10,000 points and all of these points may be deposited in Ted's user account. Further, when Ted reaches the volume threshold of 500 gallons purchased, he may receive an additional 20,000 points deposited in his user account.

[0030] As described throughout, the presently disclosed subject matter provides a new loyalty point system and methods for allocating points among users in the loyalty point system. In particular, the presently disclosed loyalty point program features a two-tier marketing approach based on teams and awards points to owners of teams and members of teams, and each user may be an owner of one team and a member of one team. Because team members forfeit a portion of points to the team owner for purchases (fuel and/or non-fuel) they make, it may be the case that users would be incentivized to be a team owner only and would be disincentivized to become a team member of another team. As such, a feature of the disclosed subject matter is the implementation of a loyalty point program kickback within the loyalty point system in situations in which a user is only a team owner

and not a team member of another team. According to an implementation, an indication may be received of a qualifying fuel purchase made by the first user (i.e., team owner). As a result, a portion of points allocated to the loyalty points system may be determined based on the qualifying fuel purchase and a loyalty system point fraction Z. Accordingly, this portion of points may be deposited in a deposit account associated with the loyalty point system. As a specific example, in the loyalty point system, Alvin may be the owner of a team, Alvin's Club and Alvin may not be a member of another team. Alvin may make a qualifying fuel purchase at a BigOil fuel station. Alvin may purchase 50 liters of fuel at a BigOil fuel station and, according to the BigOil loyalty point program, two points may be earned for each liter of fuel purchased. As such, Alvin's 50 liter purchase may earn 100 loyalty points. In addition, for fuel purchases made by users who are team owners only (i.e., not also a team member), the loyalty system point fraction Z may be 0.3. Accordingly, based on Alvin's qualifying fuel purchase of 50 liters, which results in 100 points, and the loyalty system point fraction Z = 0.3, a portion of points allocated to the loyalty point system may be determined to be 30 points (i.e. 50 liters earns 100 loyalty points x loyalty system point fraction 0.3 = 30 points). These 30 points may be deposited in a deposit account associated with the loyalty point system (e.g., a kickback to the loyalty point program). These kickback points to the loyalty point system may be used towards winner point allocations in contests, volume threshold point allocations, etc.

[0031] In addition, a non-member point fraction W may be used to determine a portion of points allocated to Alvin based on the qualifying fuel purchase. For example, the non-member point fraction W may be 0.7, and in general, the loyalty system point fraction Z plus the non-member point fraction W may equal 1. Accordingly, based on Alvin's qualifying fuel purchase of 50 liters, which results in 100 points, and the non-member point fraction W = 0.7, a portion of points allocated to Alvin may be determined to be 70 points (i.e. 50 liters earns 100 loyalty points x non-member point fraction W 0.7 = 70 points). These 70 points may be deposited in Alvin's user account. In some cases, the team owner point fraction X may be less than the loyalty system point fraction Z, and as such, Alvin may forfeit fewer points for his qualifying fuel purchase by being a member of another team, thereby incentivizing Alvin to become a member of another team. For instance considering the example above, if Alvin is a member of a team, the Black Cats, and the team owner point fraction X is 0.2, 20 points may have been deposited in the Black Cats team owner's deposit account and Alvin may have received the remaining 80 points

for his fuel purchase rather than only 70 points if he is not a team member based on the non-member point fraction W of 0.7.

[0032] Various other features of the loyalty point system are disclosed herein. One feature is that an owner can "gift" points to a member of his team. An owner may wish to reward members who brought in other members to the team, influence members to make qualifying purchases if the user has been inactive, or for no reason at all. The loyalty point system may also include loyalty status tiers for rewarding the most loyal users. For example, there may be five tiers: bronze, silver, gold, platinum, and titanium. A mobile application implementing the loyalty point system may keep track of user purchases and a user can improve her status based on the amount of fuel and/or non-fuel purchases made during a set time period. The more purchases a user makes, the higher status a user may achieve. In addition, the higher a user's status, the more points she may earn for each purchase made. For example, by achieving a higher level status, a user may earn more points per liter and/or a user may earn a larger portion of points on non-fuel purchases. As a specific example, gold tier members may earn 5 points per liter, while titanium members may earn 8 points per liter. A gold member may earn 150% of the points for a bottle of wine, while a titanium member may earn 200%. Therefore, if a bottle of wine has a 1000 point promotion, a standard member may receive 1000 points, a gold member may receive 1500 points, and a titanium member may receive 2000 points. Points may expire after a certain amount of time has passed; however, the expiration may be extended if the user makes a qualifying fuel and/or non-fuel purchase again prior to the expiration. In some cases, the loyalty point program may limit point expiration extensions to fuel purchases only, for example, in those countries where the loyalty point program may not include non-fuel purchase point accrual. According to an implementation, the mobile application may provide alerts notifying the user that points will be expiring in the near future. In general, points may be redeemed in a variety of ways. For example, points may be converted to a cent per liter (cpl) discount off a future fuel purchase, a total dollar discount on a future purchase, etc. As a specific example, 1000 points may equal 1 cpl discount up to a maximum of 60 liters.

[0033] FIG. 2 shows an example communication flow according to an implementation of the disclosed subject matter. As shown, a first user may be using a loyalty point system mobile application on a first mobile device, 201. The mobile application may be in communication with a loyalty point system, 202. A mobile application may also be a

website. A second user may also be using the loyalty point system mobile application on a second mobile device, 203. The first mobile device 201 may receive login/registration information for a first user account associated with the first user, at 204. At 205, an indication that the first user has become an owner of a first team may be provided, by the first mobile device 201, to the loyalty point system 202. The second mobile device 203 may receive login/registration information for a second user account associated with the second user, at 206. The second mobile device may provide an indication, to the loyalty point system 202, that the second user has become a member of the first team, at 207. Next, the second mobile device 203 may receive an indication that the second user has made a qualifying fuel purchase at 208. As a result, the second mobile device 203 may provide an indication that the second user has made a qualifying fuel purchase to the loyalty point system, at 209. The loyalty point system 202 may determine a first portion of points allocated to the first user based on the qualifying fuel purchase and a team owner point fraction X, at 210. Accordingly, the loyalty point system may deposit the first portion of points in the first user account associated with the first user, at 211. As such, the first mobile device 201 may receive a deposit of the first portion of points in the first user account, at 212. As used herein, a mobile device may be a smartphone, a tablet, a laptop, a wearable computer, and any other device capable of running a mobile application and/or website.

[0034] FIG. 3 shows an example process according to an implementation of the disclosed subject matter. As shown in FIG. 3, a computer-implemented method for allocating loyalty points among a plurality of users in a loyalty point system may include receiving, at a mobile device, login information for a first user account associated with a first user, at 301. As described herein, a loyalty point system may be implemented in a website, a mobile application, an operating system, and the like. As such, login information may be received via an interface associated with the loyalty point system. Next, an indication that the first user has become an owner of a first team may be provided at 302. At 303, a deposit may be received in the first user account. This deposit may be of a portion of points allocated to the first user, wherein the portion of points is based on a qualifying fuel purchase, made by a second user, and a team owner point fraction X. In some cases, prior to the step of receiving a deposit, an indication that the second user has become a member of the first team may be received at the mobile device. Similarly, prior to the step of receiving a deposit, an indication of the qualifying fuel purchase made by the

second user may be received. Indications received at a mobile device may be provided in a variety of ways such as a pop-up notification, push notification, email notification, text message notification, and the like.

[0035] In an implementation, communication between a loyalty point system (e.g., a loyalty point program provider) and a mobile device may be across one or more bridges between the interfaces. For example, the communications between the loyalty point system and a mobile device may be managed or assisted by a third device, such as, a coordinating device, a local coordinator, a remote server, etc. In such cases, the third device may, for example, receive an indication that a second user has made a qualifying fuel and/or non-fuel purchase. The third device may then provide, to the loyalty point system, an indication that the second user has made a qualifying fuel and/or non-fuel purchase. In addition or alternatively, the third device may determine a portion of points allocated to the first user based on the qualifying fuel and/or non-fuel purchase and a team owner point fraction X or X_1. In one case, the third device may provide an indication, to the loyalty point system, of the portion of points to be deposited in the user account associated with the first user. In addition or alternatively, the third device may deposit the portion of points in the user account associated with the first user. Furthermore, more than one intermediate device may be implemented to facilitate communication between a loyalty point system (e.g., a loyalty point program provider) and one or more mobile devices.

[0036] Embodiments of the presently disclosed subject matter may be implemented in and used with a variety of component and network architectures. FIG. 4 is an example computer system 20 suitable for implementing embodiments of the presently disclosed subject matter. The computer 20 includes a bus 21 which interconnects major components of the computer 20, such as one or more processors 24, memory 27 such as RAM, ROM, flash RAM, or the like, an input/output controller 28, and fixed storage 23 such as a hard drive, flash storage, SAN device, or the like. It will be understood that other components may or may not be included, such as a user display such as a display screen via a display adapter, user input interfaces such as controllers and associated user input devices such as a keyboard, mouse, touchscreen, or the like, and other components known in the art to use in or in conjunction with general-purpose computing systems.

[0037] The bus 21 allows data communication between the central processor 24 and the memory 27. The RAM is generally the main memory into which the operating system

and application programs are loaded. The ROM or flash memory can contain, among other code, the Basic Input-Output system (BIOS) which controls basic hardware operation such as the interaction with peripheral components. Applications resident with the computer 20 are generally stored on and accessed via a computer readable medium, such as the fixed storage 23 and/or the memory 27, an optical drive, external storage mechanism, or the like.

[0038] Each component shown may be integral with the computer 20 or may be separate and accessed through other interfaces. Other interfaces, such as a network interface 29, may provide a connection to remote systems and devices via a telephone link, wired or wireless local- or wide-area network connection, proprietary network connections, or the like. For example, the network interface 29 may allow the computer to communicate with other computers via one or more local, wide-area, or other networks, as shown in FIG. 5.

[0039] Many other devices or components (not shown) may be connected in a similar manner, such as document scanners, digital cameras, auxiliary, supplemental, or backup systems, or the like. Conversely, all of the components shown in FIG. 4 need not be present to practice the present disclosure. The components can be interconnected in different ways from that shown. The operation of a computer such as that shown in FIG. 4 is readily known in the art and is not discussed in detail in this application. Code to implement the present disclosure can be stored in computer-readable storage media such as one or more of the memory 27, fixed storage 23, remote storage locations, or any other storage mechanism known in the art.

[0040] FIG. 5 shows an example arrangement according to an embodiment of the disclosed subject matter. One or more clients 10, 11, such as local computers, smart phones, tablet computing devices, remote services, and the like may connect to other devices via one or more networks 7. The network may be a local network, wide-area network, the Internet, or any other suitable communication network or networks, and may be implemented on any suitable platform including wired and/or wireless networks. The clients 10, 11 may communicate with one or more computer systems, such as processing units 14, databases 15, and user interface systems 13. In some cases, clients 10, 11 may communicate with a user interface system 13, which may provide access to one or more other systems such as a database 15, a processing unit 14, or the like. For example, the user interface 13 may be a user-accessible web page that provides data from one or more other computer systems. The user interface 13 may provide different interfaces to different

clients, such as where a human-readable web page is provided to web browser clients 10, and a computer-readable API or other interface is provided to remote service clients 11. The user interface 13, database 15, and processing units 14 may be part of an integral system, or may include multiple computer systems communicating via a private network, the Internet, or any other suitable network. Processing units 14 may be, for example, part of a distributed system such as a cloud-based computing system, search engine, content delivery system, or the like, which may also include or communicate with a database 15 and/or user interface 13. In some arrangements, an analysis system 5 may provide back-end processing, such as where stored or acquired data is pre-processed by the analysis system 5 before delivery to the processing unit 14, database 15, and/or user interface 13. For example, a machine learning system 5 may provide various prediction models, data analysis, or the like to one or more other systems 13, 14, 15.

[0041] More generally, various embodiments of the presently disclosed subject matter may include or be embodied in the form of computer-implemented processes and apparatuses for practicing those processes. Embodiments also may be embodied in the form of a computer program product having computer program code containing instructions embodied in non-transitory and/or tangible media, such as CD-ROMs, DVDs, hard drives, USB (universal serial bus) drives, flash drives, or any other machine readable storage medium, such that when the computer program code is loaded into and executed by a computer, the computer becomes an apparatus for practicing embodiments of the disclosed subject matter. Embodiments also may be embodied in the form of computer program code, for example, whether stored in a storage medium, loaded into and/or executed by a computer, or transmitted over some transmission medium, such as over electrical wiring or cabling, through fiber optics, or via electromagnetic radiation. When the computer program code is loaded into and executed by a computer, the computer becomes an apparatus for practicing embodiments of the disclosed subject matter. When implemented on a general-purpose microprocessor, the computer program code segments configure the microprocessor to create specific logic circuits. In some configurations, a set of computer-readable instructions stored on a computer-readable storage medium may be implemented by a general-purpose processor, which may transform the general-purpose processor or a device containing the general-purpose processor into a special-purpose device configured to implement or carry out the instructions. Embodiments may be implemented using hardware that may include a processor, such as a general purpose

microprocessor and/or an Application Specific Integrated Circuit (ASIC) that embodies all or part of the techniques according to embodiments of the disclosed subject matter in hardware and/or firmware. The processor may be coupled to memory, such as RAM, ROM, flash memory, a hard disk or any other device capable of storing electronic information, as previously described. The memory or other storage medium may store instructions adapted to be executed by the processor to perform the techniques according to embodiments of the disclosed subject matter.

[0042] The foregoing description, for purpose of explanation, has been described with reference to specific embodiments. However, the illustrative discussions above are not intended to be exhaustive or to limit embodiments of the disclosed subject matter to the precise forms disclosed. Many modifications and variations are possible in view of the above teachings. The embodiments were chosen and described in order to explain the principles of embodiments of the disclosed subject matter and their practical applications, to thereby enable others skilled in the art to utilize those embodiments as well as various embodiments with various modifications as may be suited to the particular use contemplated.

CLAIMS

1. A computer-implemented method for allocating loyalty points among a plurality of users in a loyalty point system comprising:

receiving an indication that a first user has become an owner of a first team;

receiving an indication that a second user has become a member of the first team;

receiving an indication of a qualifying fuel purchase made by the second user;

determining a first portion of points allocated to the first user based on the qualifying fuel purchase and a team owner point fraction X; and

depositing the first portion of points in a first user account associated with the first user.

2. The method of claim 1, further comprising:

determining a second portion of points allocated to the second user based on the qualifying fuel purchase and a team member point fraction Y; and

depositing the second portion of points in a second user account associated with the second user.

3. The method of claim 2, wherein $Y > X$.

4. The method of claim 1, further comprising:

receiving an indication of a qualifying non-fuel purchase made by the second user;

determining a third portion of points allocated to the first user based on the qualifying non-fuel purchase and a team owner point fraction X_1;

depositing the third portion of points in the first user account associated with the first user;

determining a fourth portion of points allocated to the second user based on the qualifying non-fuel purchase and a team member point fraction Y_1; and

depositing the fourth portion of points in a second user account associated with the second user.

5. The method of claim 1, further comprising:

receiving an indication that the second user has become an owner of a second team;

receiving an indication that a third user has become a member of the second team.

6. The method of claim 1, further comprising:

determining that the first team is a winner of a competition;

determining a winner points allocation associated with winning the competition;

dividing equally the winner points allocation among the owner and members of the first team;

depositing the divided winner points allocation in the first user account associated with the first user;

depositing the divided winner points allocation in a user account associated with each member of the first team.

7. The method of claim 1, further comprising:

determining that the first team has met a volume threshold;

determining a volume points allocation associated with meeting the volume threshold;

depositing the volume points allocation in the first user account associated with the first user.

8. The method of claim 1, further comprising: prior to the step of receiving an indication that the second user has become a member of the first team, receiving a request, from the first user, to add the second user as a member of the first team.

9. The method of claim 1, further comprising: prior to the step of receiving an indication that the second user has become a member of the first team, receiving a request, from the second user, to add the second user as a member of the first team.

10. The method of claim 1, further comprising:

receiving an indication of a qualifying fuel purchase made by the first user;

determining a fifth portion of points allocated to the loyalty points system based on the qualifying fuel purchase and a loyalty system point fraction Z;

depositing the fifth portion of points in a deposit account associated with the loyalty point system.

11. A system for allocating loyalty points among a plurality of users in a loyalty point system comprising:

a processor configured to:

receive an indication that a first user has become an owner of a first team;

receive an indication that a second user has become a member of the first team;

receive an indication of a qualifying fuel purchase made by the second user;

determine a first portion of points allocated to the first user based on the qualifying fuel purchase and a team owner point fraction X; and

deposit the first portion of points in a first user account associated with the first user.

12. The system of claim 11, wherein the processor is further configured to:

determine a second portion of points allocated to the second user based on the qualifying fuel purchase and a team member point fraction Y; and

deposit the second portion of points in a second user account associated with the second user.

13. The system of claim 12, wherein $Y > X$.

14. The system of claim 11, wherein the processor is further configured to:

receive an indication of a qualifying non-fuel purchase made by the second user;

determine a third portion of points allocated to the first user based on the qualifying non-fuel purchase and a team owner point fraction X_1;

deposit the third portion of points in the first user account associated with the first user;

determine a fourth portion of points allocated to the second user based on the qualifying non-fuel purchase and a team member point fraction Y_1; and

deposit the fourth portion of points in a second user account associated with the second user.

15. The system of claim 11, wherein the processor is further configured to:

receive an indication that the second user has become an owner of a second team; and

receive an indication that a third user has become a member of the second team.

16. The system of claim 11, wherein the processor is further configured to:

determine that the first team is a winner of a competition;

determine a winner points allocation associated with winning the competition;

divide equally the winner points allocation among the owner and members of the first team;

deposit the divided winner points allocation in the first user account associated with the first user; and

deposit the divided winner points allocation in a user account associated with each member of the first team.

17. The system of claim 11, wherein the processor is further configured to:

determine that the first team has met a volume threshold;

determine a volume points allocation associated with meeting the volume threshold; and

deposit the volume points allocation in the first user account associated with the first user.

18. The system of claim 11, wherein the processor is further configured to receive a request, from the first user, to add the second user as a member of the first team prior to the step of receiving an indication that the second user has become a member of the first team.

19. The system of claim 11, wherein the processor is further configured to: receive a request, from the second user, to add the second user as a member of the first team prior to the step of receiving an indication that the second user has become a member of the first team.

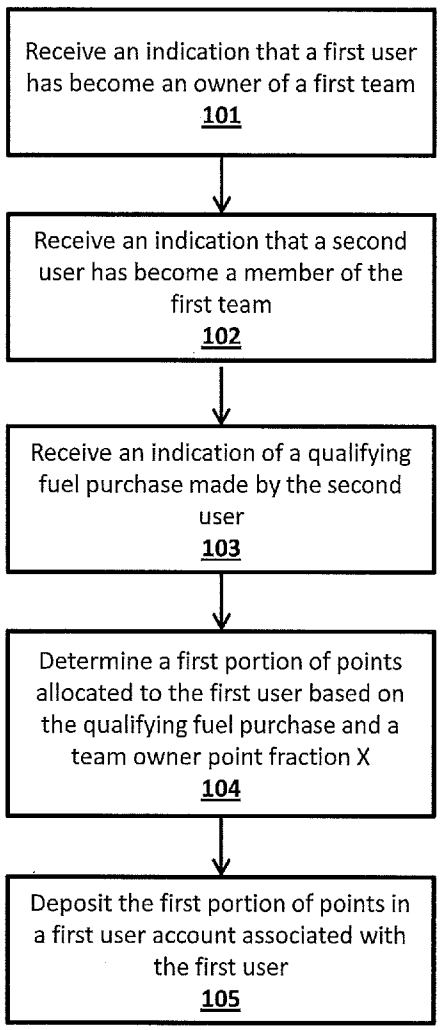
20. The system of claim 11, wherein the processor is further configured to:

receive an indication of a qualifying fuel purchase made by the first user;

determine a fifth portion of points allocated to the loyalty points system based on the qualifying fuel purchase and a loyalty system point fraction Z;

deposit the fifth portion of points in a deposit account associated with the loyalty point system.

Figure 1


Receive an indication that a first user has become an owner of a first team
101
Receive an indication that a second user has become a member of the first team
102
Receive an indication of a qualifying fuel purchase made by the second user
103
Determine a first portion of points allocated to the first user based on the qualifying fuel purchase and a team owner point fraction X
104
Deposit the first portion of points in a first user account associated with the first user
105

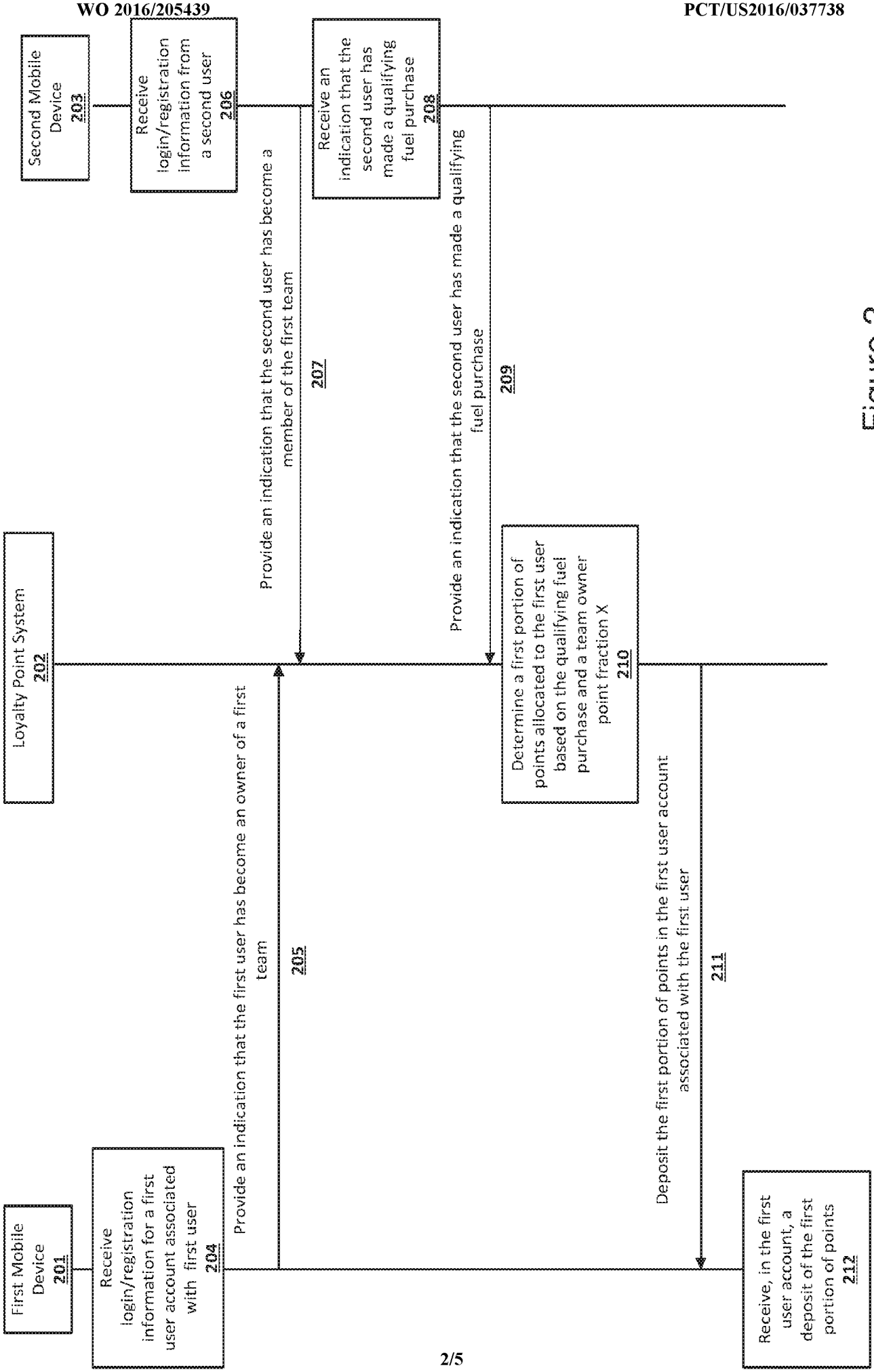

First Mobile Device 201
Second Mobile Device 203
Loyalty Point System 202
Receive login/registration information for a first user account associated with first user 204
Receive login/registration information from a second user 206
Provide an indication that the first user has become an owner of a first team 205
Provide an indication that the second user has become a member of the first team 207
Receive an indication that the second user has made a qualifying fuel purchase 208
Provide an indication that the second user has made a qualifying fuel purchase 209
Determine a first portion of points allocated to the first user based on the qualifying fuel purchase and a team owner point fraction X 210
Deposit the first portion of points in the first user account associated with the first user 211
Receive, in the first user account, a deposit of the first portion of points 212

Figure 2

Figure 3

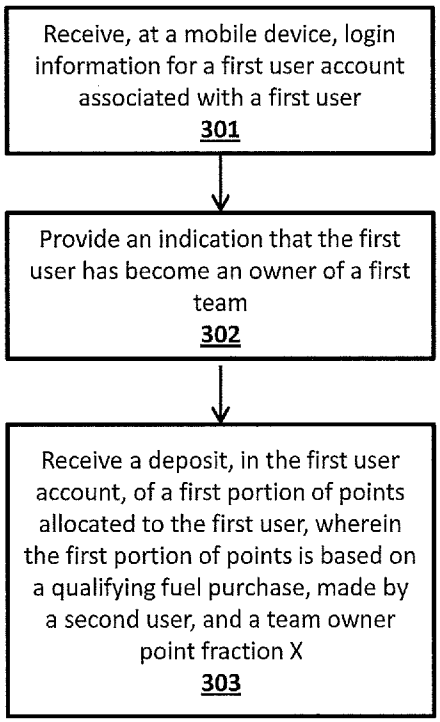

Receive, at a mobile device, login information for a first user account associated with a first user
301
Provide an indication that the first user has become an owner of a first team
302
Receive a deposit, in the first user account, of a first portion of points allocated to the first user, wherein the first portion of points is based on a qualifying fuel purchase, made by a second user, and a team owner point fraction X
303

Figure 4

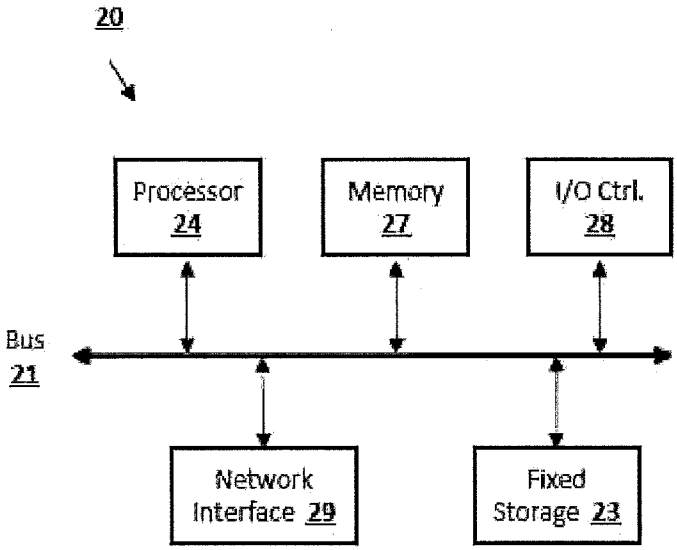
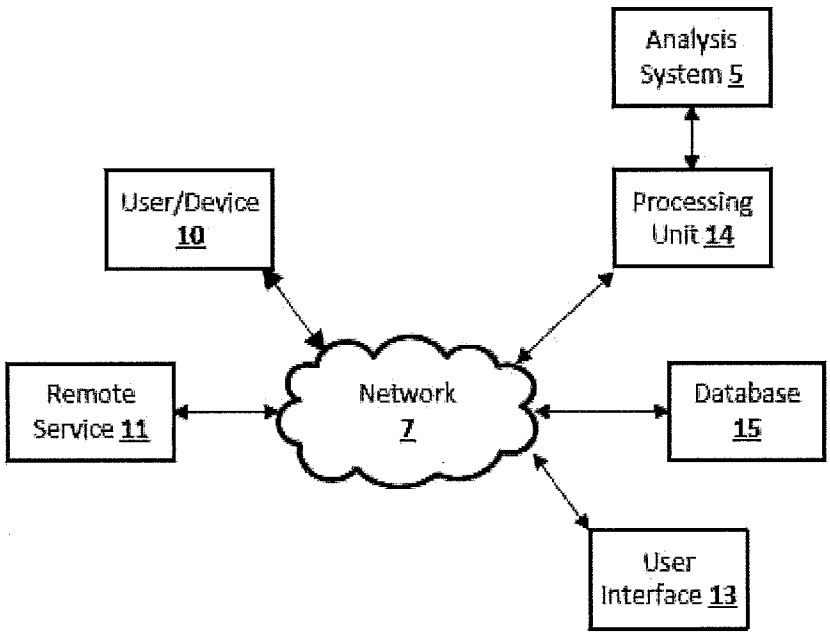

20
Processor
24
Memory
27
I/O Ctrl.
28
Bus
21
Network
Interface 29
Fixed
Storage 23

Figure 5


Analysis System 5
User/Device 10
Processing Unit 14
Remote Service 11
Network 7
Database 15
User Interface 13

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US16/37738

A. CLASSIFICATION OF SUBJECT MATTER
IPC(8) - G06Q30/02, G06Q30/06, G06Q20/04 (2016.01)
CPC - G06Q30/02, G06Q30/06, G06Q20/04
According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC(8) Classifications: G06Q30/02, G06Q30/06, G06Q20/04 (2016.01)
CPC Classifications: G06Q30/02, G06Q30/06, G06Q20/04

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
PatSeer (US, EP, WO, JP, DE, GB, CN, FR, KR, ES, AU, IN, CA, INPADOC Data); EBSCO; IP.com; Google.

Keywords: points, credits, allocate, distribute, reward, fuel, gas, purchase, buy, team, member, proportion

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X ------- Y	US 8458016 B1 (MEDINA III, R et al.) 04 June 2013; abstract; figures 3-5; column 1, lines 44, 49-52; column 4, lines 14-20; column 5, lines 3-6, 8-18; column 6, lines 19-21, 51-53, 64-67; column 7, lines 1-12, 59-67; column 8, lines 7-26; claim 1.	1-4, 7, 8, 11-14, 17-18 ---------- 5, 6, 9, 10, 15, 16, 19, 20
Y	US 7516411 B2 (BEATON, B et al.) 07 April 2009; column 20, lines 49-52.	5, 15
Y	US 8636571 B2 (MILLER, K) 28 January 2014; abstract; column 1, lines 27-34, 45-48; column 2, lines 5-7; column 6, lines 4-14; column 8, lines 16-18.	6, 10, 16, 20
Y	US 2015/0120024 A1 (GLOBALFIT AFFILIATES, INC.) 30 April 2015; paragraph [0132].	9, 19

☐ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

* Special categories of cited documents:
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed
"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
17 August 2016 (17.08.2016)	07 SEP 2016
Name and mailing address of the ISA/ Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-8300	Authorized officer Shane Thomas PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

Form PCT/ISA/210 (second sheet) (January 2015)