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- (54) Title: AUTOMATED CODE LOCKDOWN TO REDUCE ATTACK SURFACE FOR SOFTWARE

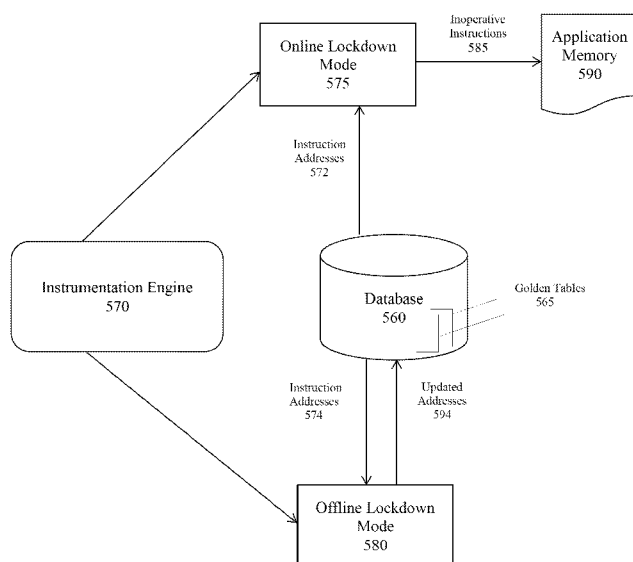


FIG. 5B

(57) Abstract: In an example embodiment, a system determines a set of instructions from the available instructions for a computer application. The determined set of instructions provides specific functionality of the computer application. The system may determine the set of instructions by performing functional testing and negative testing on the specific functionality. The system may reorganize and randomize the set of instructions in memory and write the reorganized set of instructions to a smaller memory space. For each available instruction not in the set of instructions, the system changes the respective instruction to inoperative to prevent execution of the respective instruction. The system may change the respective instruction to inoperative by overwriting the instruction with a NOP instruction. The system then captures a memory address of the computer application being accessed at runtime. The system may declare a security attack if the captured memory address matches a memory address for an inoperative instruction.



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