SENG300 GROUP ASSIGNMENT 2

GROUP NO.5

JUSTIFICATION OF DESIGN

The vending logic program is installed on the vending machine. In the fields of the vending logic, (1)an integer “credit” records the current inserted valid coins in terms of cents, (2)an EventLogInterface “EL” is an event logger used to track vending machine interactions, (3)a Boolean “circuitEnabled” is an array used for custom configurations VendingSetup class sets up the vending machine with default values and registers all the listeners, (4) a Boolean “debug” is for easily switching between debug mode and normal mode and (5) a String “currentMessage” storing the message for display.

The VendingSetup class serves to set up a vending machine with default values.The VendingLogic class implements fully functional logic for the vending machine. CoinRackListner, CoinReceptacleListner, CoinReturnListner, CoinSlotListner, DisplayListner, IndicatorLightListner, PopCanRackListner and PushButtonListner were implemented to notify the actions and call methods in VendingLogic class. EventLog class contains methods used for recording the activities of the vending machine, logging each action of the user and the actions of the machine that are visible to the user in a text file.

After the machine was set up, welcomeMessage() method is triggered to display welcome message. When a user inserts coins, the CoinSlotListenerDevice will notice the action and the trigger the methods in the vending logic. If the coin is valid, add credits, otherwise return the coin. When the user presses the button, PushButtonListnerDevice will notice it and tell the logic. If the credits are enough, check if the machine can return the exact amount of changes and if so, return changes dispense the pop can(not implemented now), otherwise turn on “exact change only” light. Every interaction and display will be logged into a text file.

In short, every time there is an action of the user, the corresponding listeners will notice and trigger events in the vending logic to make the vending machine to response.