4HC3 Assignment 2 – Parking Machine Requirements

**Functional Requirements**

Minimum Requirements:

* User must be able to pay for ticket using coins, credit and debit
  + *This will require multiple components for hardware interface to accept funds*
* User must receive a printed *dash-board* ticket during transaction
  + *This can be a virtual ticket in a dialog box*
* During a transaction, users must be able to add or remove time on the current parking ticket, **prior** to it being printed
* User must be able to insert non-expired tickets and receive partial refund for time remaining on ticket
* Aside from payment, receiving tickets and refunding tickets, user must be able to complete the entire transaction using the touch screen
* User may enter their credit card information as a form of payment (i.e. no swipe, insert or tap)

Should Have Requirements:

* When user inserts a non-expired ticket, the system will allow the user to add more time onto the ticket or refund it – innovative
* When user inserts an expired ticket, the system does not allow the user to refund remaining time on the ticket (remaining time on ticket is 0)
* The system must refund coins to the user if it is requested.
* The testing environment will have the following:
  + A sample credit card
    - *Do we need to handle both a credit and debit card? Assume same?*
  + An infinite number of coins, in any amount
  + An expired ticket
  + A non-expired ticket

Nice to Have Requirements:

* When inserting coins, user must be able to see the current number of coins entered and the time that will be added to the ticket
* The touch screen must display the current time at all times, this time may or may not increment
* The user must be able to return to the starting screen. If there were coins inserted they are refunded.
* If there has been no activity for a specified amount of time, the system will prompt the user to perform an action. If there is no response the system returns to the starting screen and refunds all coins if they were inserted.
  + *We could add this later if time permits*
* When a user’s card is denied, the user is prompted to try the card again or try another method
  + *We may not want this as it’s something the TA may not care about, but could be bonus marks for innovation*