**ATM Machine:**

**Requirements:**

**High level requirements:**

* Machine shall be able Read the card.
* Shall be able to read the pin entered by the user.
* Machine shall be able Eat the card after 3 wrong trials.
* Shall be able to dispense the amount entered in multiples of 100.
* Updated balance to be displayed to the user.
* Shall be able to deposit money in multiples of 100.
* Updated balance to be displayed to the user.
* If the exit button is tapped the machine is expected to release the card.

**Low level requirements:**

* Display the user name, or the card holder name.
* Read the pin correctly, if entered the wrong pin more than 3 times the machine shall be able to eat the card.
* Display the available banking functions

1. Withdrawal
   1. Instant withdrawal – mentioned 5 different amounts
   2. User shall be able to enter the amount of choice in the multiples of 100
2. Deposit – deposit money in multiples of 100
3. Updated balance shall be displayed to the user each time the banking function is executed
4. Changing pin

4.1. user shall not use the same pin as the new pin.

4.2. User cannot use recurring numbers for pin.

* Screen time out shall be used to know if the user hasn’t used the machine for 30 seconds.
* If the user takes more than 5 seconds between entering one key and other the function shall be reset.

**Test Plan:**

1. Check for pin when the card is entered.
2. If pin is wrong for 2 times warn the entered pin is wrong.
3. If the pin entered is wrong for 3 times eat the card.
4. Withdrawal:
   1. Expected to enter the amount in multiples of 100
   2. If the user doesn’t enter the amount in multiples of 100 then warn for first time and reset the function for second time.
   3. If cash in ATM is less than the amount entered cancel the transaction.
   4. If the amount entered is more than the withdrawal limit cancel the transaction.
   5. If the amount entered is equal to the cash in the ATM then dispense the cash.
   6. Update the balance and print the new balance on the display when withdrawal is made.
   7. When the user press cancel button less than 2 seconds cancel the transaction.
   8. If the cancel button is pressed after 2 seconds display couldn’t cancel the transaction and dispense the cash.
5. Deposit:
   1. Expected to insert money in multiples of 100
   2. If the money entered is not in the multiples of 100 return the money to the user.
   3. If this action repeats more than 3 times then do not allow to insert more cash.
   4. Update the amount whenever the money is added to the deposit.
   5. Once all the money is taken then display the royal amount entered by now.
   6. Display updated balance on the screen. Once the deposit is completed.
   7. If the stack in the ATM is full do not accept any cash.
   8. And display which stack that is empty to enter money.
6. Change PIN:
   1. Read the current PIN.
   2. If Current == New PIN then display error saying that the previous pin is same as to he pin
   3. If Current PIN != New PIN then set the New pin as current PIN.
   4. If the numbers in the new pin are recursive then do not change the PIN.

**Scenario cases:**

1. Power shut while dispensing the cash, wait for the power restore and dispense the cash.
2. If power didn’t restore in 10 seconds the reset the function and do not dispense the cash.

**Boundary test cases:**

* 1. When the stack is full, cannot intake more cash.
  2. If there is one last Note and the amount entered is same as the cash in ATM dispense the cash.