

CS-589 Project Report

Object-Oriented and Model-Based

Testing of Gas Pump Class

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1. Introduction:

The Objective of this project is to “Test” the GasPump Class which exhibits state behavior which is specified by a state based EFSM Model. The testing methods being used to test this class are:

- All Pairs Transition Testing
- Default Transition Testing (Ghost Transitions)
- Multiple Condition Testing

The Documents which are available to us are

- The Project Report
- Source Code in C++ and Java
- EFSM State Model

The Description of the GasPump Class is shown below:

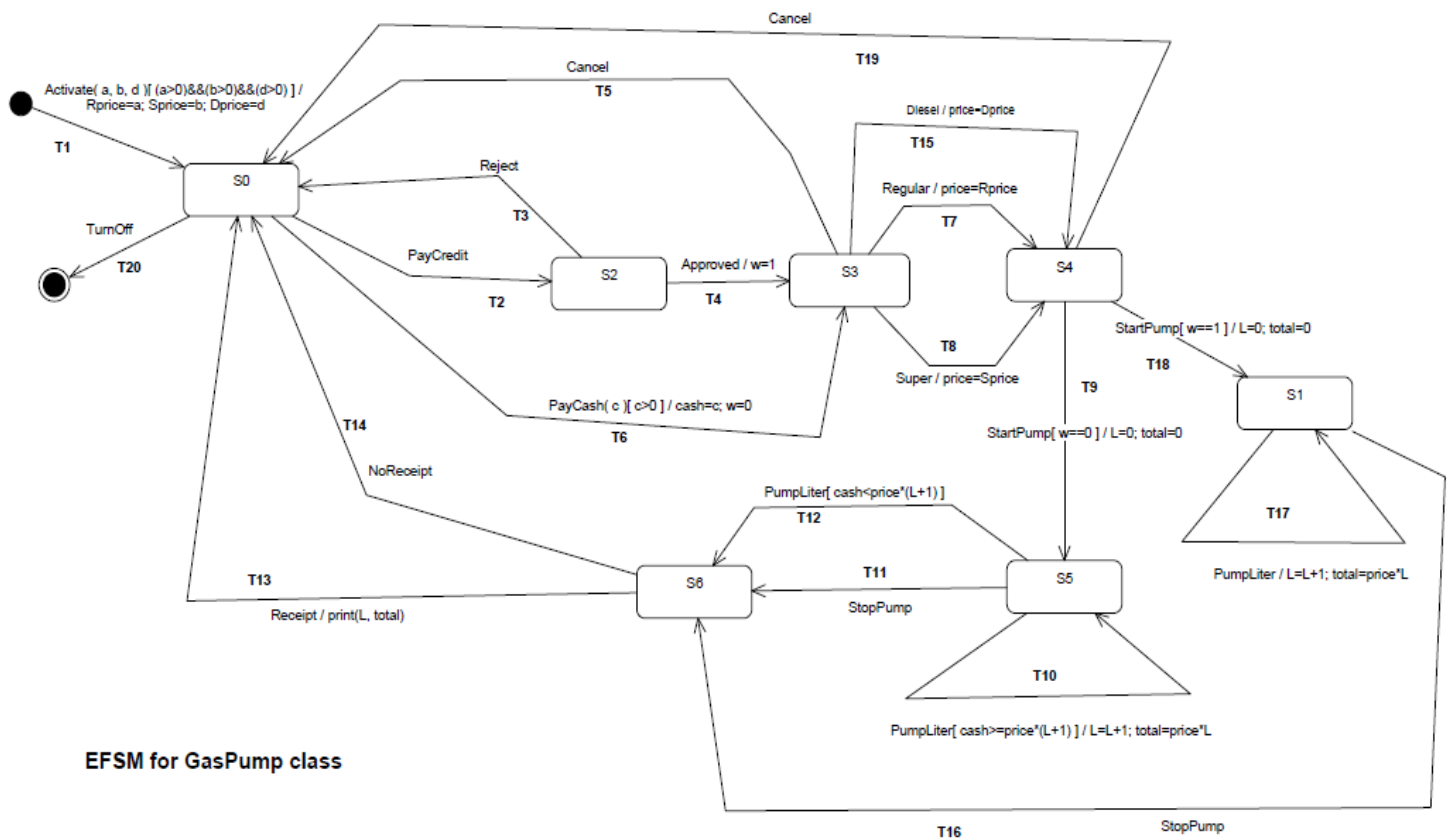
Methods and their Operations as per the Project Description

```
GasPump()           //constructor
int Activate (float a, float b, float d) // the gas pump is activated where a represents the
                                         // price of Regular gas; b represents the price of
                                         // Super gas; d represents the price of Diesel fuel
int PayCredit()      // pay for gas/fuel by a credit card
int Reject()         // credit card is rejected
int Cancel()         // cancel the transaction
int Approved()       // credit card is approved
int PayCash(float c) // pay for gas/fuel by cash, where c represents prepaid cash
int Regular()        // Regular gas is selected
int Super()          // Super gas is selected
int Diesel()         // Diesel fuel is selected
int StartPump()      // start pumping gas
int PumpLiter()      // one liter of gas/fuel is disposed
int StopPump()       // stop pumping gas/fuel
int NoReceipt()      // no receipt
int Receipt()        // receipt is printed
int TurnOff()        // gas pump is turned off
```

The Description of the **GasPump** Class as per the Project Description

The **GasPump** class is a state-based class that is used to control a simple gas pump. Users can pay by cash or a credit card. The gas pump dispenses two types of gasoline (Regular and Super) and Diesel fuel. The price of each type of gasoline and Diesel fuel is provided when the gas pump is activated. The detailed behaviour of the *GasPump* class is specified by the EFSM model that is provided in a separate file.

2. EFSM:



3. Source Code:

```
class GasPump {  
  
    public:  
  
    GasPump();  
  
    int Activate (float a, float b, float d);  
  
    int PayCredit();  
  
    int Reject();  
  
    int Cancel();  
  
    int Approved();  
  
    int PayCash(float c);  
  
    int Regular();  
  
    int Super();  
  
    int Diesel();  
  
    int StartPump();  
  
    int PumpLiter();  
  
    int StopPump();  
  
    int NoReceipt();  
  
    int Receipt();  
  
    int TurnOff();  
  
  
    private:  
  
    float Rprice;  
  
    float Sprice;  
  
    float Dprice;  
  
    int w;  
  
    float price;
```

```
int L;

float total;

float cash;

int k;

};

GasPump::GasPump(){

    Rprice=0;

    Sprice=0;

    Dprice=0;

    w=0;

    price=0;

    L=0;

    total=0;

    cash=0;

    k=-1;

}

int GasPump::Activate (float a, float b, float d){

    if ((k==-1)&&(a>0)&&(b>0)&&(d>0)) {

        k=0;

        Rprice=a;

        Sprice=b;

        Dprice=d;

        cout<<"GAS PUMP IS ON"<<endl;

        return 1;

    } else return 0;

};
```

```
int GasPump::PayCredit() {  
    if (k==0) {  
        k=2;  
        cout<<"CHECKING CREDIT CARD."<<endl;  
        return 1;  
    } else return 0;  
};  
  
int GasPump::Reject() {  
    if (k==2) {  
        k=0;  
        cout<<"CREDIT CARD IS REJECTED."<<endl;  
        return 1;  
    } else return 0;  
};  
  
int GasPump::Approved() {  
    if (k==2) {  
        k=3;  
        w=1;  
        cout<<"CREDIT CARD APPROVED."<<endl;  
        cout<<"SELECT TYPE OF GASOLINE:"<<endl;  
        cout<<"a. REGULAR"<<endl;  
        cout<<"b. SUPER"<<endl;  
        cout<<"c. DIESEL"<<endl;  
        return 1;  
    } else return 0;  
};
```

```
int GasPump::Cancel() {  
    if ((k==3) || (k==4)) {  
        k=0;  
        cout<<"TRANSACTION IS CANCELLED."<<endl;  
        if (w==0) cout<<"$"<<cash<<" OF CASH IS RETURNED"<<endl;  
        return 1;  
    } else return 0;  
};  
  
int GasPump::PayCash(float c) {  
    if ((k==0)&&(c>0)) {  
        k=3;  
        w=0;  
        cash=c;  
        cout<<"SELECT TYPE OF GASOLINE:"<<endl;  
        cout<<"a. REGULAR"<<endl;  
        cout<<"b. SUPER"<<endl;  
        cout<<"c. DIESEL"<<endl;  
        return 1;  
    } else return 0;  
};  
  
int GasPump::Regular() {  
    if (k==3) {  
        k=4;  
        cout<<"REGULAR IS SELECTED."<<endl;  
        price=Rprice;  
        return 1;  
    }
```



```
        } else return 0;

    };

    int GasPump::Super() {
        if (k==3) {
            k=4;
            cout<<"SUPER IS SELECTED."<<endl;
            price=Sprice;
            return 1;
        } else return 0;
    };

    int GasPump::Diesel() {
        if (k==3) {
            k=4;
            cout<<"DIESEL IS SELECTED."<<endl;
            price=Dprice;
            return 1;
        } else return 0;
    };

    int GasPump::StartPump() {
        if (k==4) {
            k=5;
            L=0;
            total=0;
            cout<<"PUMP IS READY TO DISPOSE "<<endl;
            cout<<"# OF LITERS PUMPED: "<<L<<endl;
            cout<<"TOTAL CHARGE: $"<<total<<endl;
```

```
        return 1;

    } else return 0;

};

int GasPump::PumpLiter() {

    if (k==5) {

        if ((w==1) || ((cash>=price*(L+1))&&(w==0))) {

            L=L+1;

            total=L*price;

            cout<<"# OF LITERS PUMPED: "<<L<<endl;;

            cout<<"TOTAL CHARGE: $"<<total<<endl;

            cout<<"CONTINUE PUMPING"<<endl;

            return 1;

        } else if ((w==0)&&(cash<price*(L+1))) {

            k=6;

            cout<<"PUMP STOPPED. NOT SUFFICIENT FUNDS. "<<endl;

            cout<<"# OF LITERS PUMPED: "<<L<<endl;

            cout<<"TOTAL CHARGE: $"<<total<<endl;

            if ((w==0)&&(total<cash)) cout<<"$"<<cash-total<<" OF CASH IS
RETURNED"<<endl;

            cout<<"DO YOU WANT A RECEIPT?"<<endl;

            return 1;

        }

    };

};

return 0;

};

int GasPump::StopPump() {
```

```
        if (k==5) {
            k=6;

            cout<<"PUMP STOPPED. "<<endl;

            cout<<"# OF LITERS PUMPED: "<<L<<endl;

            cout<<"TOTAL CHARGE: $"<<total<<endl;

            if ((w==0)&&(total<cash)) cout<<"$"<<cash-total<<" OF CASH IS
RETURNED"<<endl;

            cout<<"DO YOU WANT A RECEIPT?"<<endl;

            return 1;

        } else return 0;
    };

    int GasPump::NoReceipt() {

        if (k==6) {

            k=0;

            cout<<"NO RECEIPT IS PRINTED "<<endl;

            return 1;

        } else return 0;

    };

    int GasPump::Receipt() {

        if (k==6) {

            k=0;

            cout<<"RECEIPT IS PRINTED: "<<endl;

            cout<<"# OF LITERS PUMPED: "<<L<<endl;

            cout<<"TOTAL CHARGE: $"<<total<<endl;

            return 1;

        } else return 0;
```

```
};

int GasPump::TurnOff() {

    if (k==0) {

        k=-2;

        cout<<"GAS PUMP IS TURNED OFF "<<endl;

        return 1;

    } else return 0;

};
```

Test Oriented Methods

```
public int show_all()           //Prints Current Values of all private variables
{
    System.out.println("Current Rprice is: " + Rprice);
    System.out.println("Current Sprice is: " + Sprice);
    System.out.println("Current Dprice is: " + Dprice);
    System.out.println("Current w is: " + w);

    System.out.println("Current price is: " + price);
    System.out.println("Current Liters Pumped L = "+L);

    System.out.println("Current total is: " + total);
    System.out.println("Current cash is: " + cash);

    return 0;
}

public int show_state()         //Shows Current state the system is in
{
    if(k == -1)
    {
        System.out.println("State Function Not Implemented Yet");
        return 0;
    }
    if (k == 5&&w==1)
        System.out.println("Current State is: S1");
    else if (k == 2)
        System.out.println("Current State is: S2");
    else if (k == 3)
```

```

        System.out.println("Current State is: S3");
    else if (k == 4)
        System.out.println("Current State is: S4");
    else if (k == 5 && w == 0)
        System.out.println("Current State is: S5");
    else if (k == 0)
        System.out.println("Current State is: S0");
    else if (k == 6)
        System.out.println("Current State is: S6");

    return 0;
}

public int show_rem_cash() //Shows remaining cash at any point of the transaction
{
    System.out.println("Cash" + (cash - total));
    return 0;
}

```

- There are 3 Test Oriented Methods Implemented, One to check values of all private Members except the K value. The next one prints the state the system currently resides on and the last method shows the remaining cash available, if cash isn't loaded yet it shows 0.

Test Driver Class Code:

```

import java.util.Scanner;

public class TestDriver
{
    GasPump obj = new GasPump();
    public static void main(String args[])
    {
        GasPump obj = new GasPump(); //Object of the class GasPump
        //char choice = new char[1]; //variable of type string to store the choice of the user

        float a=0, b=0, c=0; //variables to take values for regular diesel and super
        String choice=null; //variable to enter user's choice
        Scanner s3_2;
        Scanner s1;
        String abc12;
        int ret = 0;
        int counter = -1;
        float b1;
        String abc;
    }
}

```

```
for(;;)
{System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("");
System.out.println("*****Driver For The GasPump Class*****");
System.out.println("1.Activate");
System.out.println("2.PayCredit");
System.out.println("3.Reject");
System.out.println("4.Approved");
System.out.println("5.PayCash");
System.out.println("6.Cancel");
System.out.println("7.Regular");
System.out.println("8.Super");
System.out.println("9.Diesel");
System.out.println("0.StartPump");
System.out.println("a.PumpLiter");
System.out.println("b.StopPump");
System.out.println("c.NoReceipt");
System.out.println("d.Receipt");
System.out.println("e.TurnOff");
System.out.println("q.Quit GasPump Driver");
System.out.println("y.ShowState");
System.out.println("z.ShowAll");
System.out.println("w.ShowRemainingCash");
```

```
Scanner sa = new Scanner(System.in);//Taking the value from the user
choice = sa.nextLine();//storing the user choice as a string
```

```
switch(choice)
{
    case "1":
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("");
        System.out.println("GasPump Class ");
        System.out.println("Activate(float a, float b, float d) method");
        System.out.println("Enter the value of a");

        s1 = new Scanner(System.in);
        a = s1.nextFloat();

        System.out.println("Enter the value of b");

        s1 = new Scanner(System.in);
        b = s1.nextFloat();

        System.out.println("Enter the value of d");

        s1 = new Scanner(System.in);
        c = s1.nextFloat();

        ret = obj.Activate(a, b, c);
        if(ret == 1)
        {
            counter = 0;
```

```
    }
    System.out.println("The method returned the value: "+ret);
    System.out.println("Press Enter to continue");
    s1 = new Scanner(System.in);
    abc = s1.nextLine();

    ret = 0;
    break;

case "2":
    ret = obj.PayCredit();

    System.out.println("GasPump Class ");
    System.out.println("PayCredit() method");
    System.out.println("The method returned the value: "+ret);

    System.out.println("Press Enter to continue");
    s1 = new Scanner(System.in);
    abc = s1.nextLine();
    ret=0;
    break;

case "3":
    ret = obj.Reject();
    System.out.println("GasPump Class ");
    System.out.println("Reject() method");
    System.out.println("The method returned the value: "+ret);

    System.out.println("Press Enter to continue");
    s1 = new Scanner(System.in);
    abc = s1.nextLine();
    ret=0;
    break;

case "4":
    ret = obj.Approved();

    System.out.println("GasPump Class ");
    System.out.println("Approved() method");
    System.out.println("The method returned the value: "+ret);

    System.out.println("Press Enter to continue");
    s1 = new Scanner(System.in);
    abc = s1.nextLine();
    ret=0;
    break;

case "5":
    System.out.println("GasPump Class ");
    System.out.println("PayCash(int c) method");
```



```
System.out.println("Enter the value for c");
Scanner a2 = new Scanner(System.in);
float a1 = a2.nextFloat();

ret = obj.PayCash(a1);

System.out.println("The method returned the value: "+ret);
System.out.println("Press Enter to continue");
    s1 = new Scanner(System.in);
    abc = s1.nextLine();
    ret=0;
    break;
case "6":
    ret = obj.Cancel();

System.out.println("GasPump Class ");
System.out.println("Cancel() method");
System.out.println("The method returned the value: "+ret);
System.out.println("Press Enter to continue");
    s1 = new Scanner(System.in);
    abc = s1.nextLine();

    ret=0;
    break;
case "7":
    ret = obj.Regular();

System.out.println("GasPump Class ");
System.out.println("Regular() method");
System.out.println("The method returned the value: "+ret);
System.out.println("Press Enter to continue");
    s1 = new Scanner(System.in);
    abc = s1.nextLine();

    ret=0;
    break;
case "8":
    ret = obj.Super();

System.out.println("GasPump Class ");
System.out.println("Super() method");
System.out.println("The method returned the value: "+ret);
System.out.println("Press Enter to continue");
    s1 = new Scanner(System.in);
    abc = s1.nextLine();
```

```
        ret=0;
        break;
    case "9":
        ret = obj.Diesel();

        System.out.println("GasPump Class ");
        System.out.println("Diesel() method");
        System.out.println("The method returned the value: "+ret);
        System.out.println("Press Enter to continue");
        s1 = new Scanner(System.in);
        abc = s1.nextLine();

        ret=0;
        break;
    case "0":
        ret = obj.StartPump();

        System.out.println("GasPump Class ");
        System.out.println("StartPump() method");
        System.out.println("The method returned the value: "+ret);

        System.out.println("Press Enter to continue");
        s1 = new Scanner(System.in);
        abc = s1.nextLine();

        ret=0;
        break;
    case "a":
        ret = obj.PumpLiter();

        System.out.println("GasPump Class ");
        System.out.println("PumpLiter() method");
        System.out.println("The method returned the value: "+ret);
        System.out.println("Press Enter to continue");
        s1 = new Scanner(System.in);
        abc = s1.nextLine();

        ret=0;
        break;
    case "b":
        ret = obj.StopPump();

        System.out.println("GasPump Class ");
        System.out.println("StopPump() method");
        System.out.println("The method returned the value: "+ret);
```

```
        System.out.println("Press Enter to continue");
        s1 = new Scanner(System.in);
        abc = s1.nextLine();

        ret=0;
        break;
    case "c":
        ret = obj.NoReceipt();

        System.out.println("GasPump Class ");
        System.out.println("NoReceipt() method");
        System.out.println("The method returned the value: "+ret);
        System.out.println("Press Enter to continue");
        s1 = new Scanner(System.in);
        abc = s1.nextLine();

        ret=0;
        break;
    case "d":
        ret = obj.Receipt();

        System.out.println("GasPump Class ");
        System.out.println("Receipt() method");
        System.out.println("The method returned the value: "+ret);
        System.out.println("Press Enter to continue");
        s1 = new Scanner(System.in);
        abc = s1.nextLine();

        ret=0;
        break;
    case "e":
        ret = obj.TurnOff();

        System.out.println("GasPump Class ");
        System.out.println("TurnOff() method");
        System.out.println("The method returned the value: "+ret);
        System.out.println("Press Enter to continue");
        s1 = new Scanner(System.in);
        abc = s1.nextLine();

        ret=0;
        break;
```

```
        case "y":

            System.out.println("GasPump Class ");
            System.out.println("Test Oriented ShowState method");

            b1 = obj.show_state();
            System.out.println("Press Enter to continue");
            s1 = new Scanner(System.in);
                abc = s1.nextLine();

            break;

        case "z":

            System.out.println("GasPump Class ");
            System.out.println("Test Oriented ShowAll method");

            b1 = obj.show_all();
            System.out.println("Press Enter to continue");
            s1 = new Scanner(System.in);
                abc = s1.nextLine();

            break;

        case "w":

            System.out.println("GasPump Class ");
            System.out.println("Test Oriented ShowRemainingCash method");

            b1 = obj.show_rem_cash();
            System.out.println("Press Enter to continue");
            s1 = new Scanner(System.in);
            abc = s1.nextLine();
            break;

        case "q":
            System.out.println("Exiting The CS589 Project");
            System.out.println("GOODBYE!!!!!!");
            System.exit(0);
        default: break;
    }
}
```

4. Model Based Testing:

4.1 All Transition Pairs:

State S0	
In	Out
T1	T20
T19	T2
T5	T6
T3	
T13	
T14	

State S5	
In	Out
T10	T10
T9	T11
	T12

State S1	
In	Out
T17	T17
T18	T16

State S6	
In	Out
T11	T14
T12	T13
T16	

State S2	
In	Out
T2	T3
	T4

State S3	
In	Out
T4	T5
T6	T15
	T7
	T8

State S4	
In	Out
T15	T19
T7	T18
T8	T9

State S0

Transition Pair	Test Case Covering	Transition Pair	Test Case Covering
(T1,T2)	Test#2	(T19,T6)	Test#4
(T1,T20)	Test#1	(T5,T2)	Test#3
(T1,T6)	Test#3	(T5,T20)	Test#2
(T19,T2)	Test#4	(T5,T6)	Test#3
(T19,T20)	Test#3	(T3,T2)	Test#2
(T3,T20)	Test#6	(T3,T6)	Test#7
(T13,T2)	Test#8	(T13,T20)	Test#4
(T13,T6)	Test#9	(T14,T2)	Test#6
(T14,T20)	Test#5	(T14,T6)	Test#7

State S1

Transition Pair	Test Case Covering	Transition Pair	Test Case Covering
(T17,T17)	Test#4	(T18,T17)	Test#4
(T17,T16)	Test#4	(T18,T16)	Test#5

State S2

Transition Pair	Test Case Covering	Transition Pair	Test Case Covering
(T2,T3)	Test#2	(T2,T4)	Test#2

State S3

Transition Pair	Test Case Covering	Transition Pair	Test Case Covering
(T4,T5)	Test#2	(T6,T5)	Test#3
(T4,T15)	Test#5	(T6,T15)	Test#4
(T4,T7)	Test#4	(T6,T7)	Test#3
(T4,T8)	Test#5	(T6,T8)	Test#4

State S4

Transition Pair	Test Case Covering	Transition Pair	Test Case Covering
(T15,T19)	Test#4	(T7,T9)	Test#7
(T15,T18)	Test#6	(T8,T19)	Test#4
(T15,T9)	Test#8	(T8,T18)	Test#5
(T7,T19)	Test#3	(T8,T9)	Test#9
(T7,T18)	Test#4		

State S5

Transition Pair	Test Case Covering	Transition Pair	Test Case Covering
(T10,T10)	Test#7	(T9,T10)	Test#7
(T10,T11)	Test#9	(T9,T11)	Test#8
(T10,T12)	Test#7	(T9,T12)	Test#9

State S6

Transition Pair	Test Case Covering	Transition Pair	Test Case Covering
(T11,T14)	Test#10	(T12,T13)	Test#9
(T11,T13)	Test#8	(T16,T14)	Test#5
(T12,T14)	Test#7	(T16,T13)	Test#4

4.2 Multiple Condition Testing

➤ `int Activate(float a, float b, float d) Method`

`if ((k == -1) && (a > 0) && (b > 0) && (d > 0))`

<code>k == -1</code>	<code>a > 0</code>	<code>b > 0</code>	<code>d > 0</code>	Test Case Covering
T	T	T	T	Test#1
T	T	T	F	Test#11
T	T	F	T	Test#12
T	T	F	F	Test#13
T	F	T	T	Test#14
T	F	T	F	Test#15
T	F	F	T	Test#16
T	F	F	F	Test#17
F	T	T	T	Test#12
F	T	T	F	Test#12
F	T	F	T	Test#12
F	T	F	F	Test#13
F	F	T	T	Test#14
F	F	T	F	Test#15
F	F	F	T	Test#16
F	F	F	F	Test#17

➤ `int PayCredit()`

`if (k == 0)`

<code>k == 0</code>	Test Case Covering
T	Test#2
F	Test#11

➤ **int Reject()****if (k == 2)**

k == 2	Test Case Covering
T	Test#2
F	Test#12

➤ **int Cancel()****if ((k == 3) || (k == 4))**

k == 3	K==4	Test Case Covering
T	T	Impossible
T	F	Test#3
F	T	Test#3
F	F	Test#11

if (w == 0)

w == 0	Test Case Covering
T	Test#3
F	Test#3

➤ **int Approved()****if (k == 2)**

k == 2	Test Case Covering
T	Test#3
F	Test#11

➤ **int PayCash(float c)**

if ((k == 0) && (c > 0))

k == 0	c > 0	Test Case Covering
T	T	Test#4
T	F	Test#12
F	T	Test#16
F	F	Test#17

➤ **int Regular()**

if (k == 3)

k == 3	Test Case Covering
T	Test#4
F	Test#11

➤ **int Super()**

if (k == 3)

k == 3	Test Case Covering
T	Test#4
F	Test#11

➤ **int Diesel()**

if (k == 3)

k == 3	Test Case Covering
T	Test#4
F	Test#11

➤ **int StartPump()**

if (k == 4)

k == 4	Test Case Covering
T	Test#4
F	Test#11

➤ **int PumpLiter()**

if (k == 5)

k == 5	Test Case Covering
T	Test#4
F	Test#12

if ((w == 1) || ((cash >= price * (L + 1)) && (w == 0)))

w == 1	cash >= price * (L + 1)	w == 0	Test Case Covering
T	T	T	Impossible
T	T	F	Impossible
T	F	T	Impossible
T	F	F	Test#4
F	T	T	Test#9
F	T	F	Impossible
F	F	T	Test#9
F	F	F	Impossible

else if ((w == 0) && (cash < price * (L + 1)))

w == 0	cash < price * (L + 1)	Test Case Covering
T	T	Test#9
T	F	Impossible
F	T	Impossible
F	F	Impossible

if ((w == 0) && (total < cash))

w == 0	total < cash	Test Case Covering
T	T	Test#9
T	F	Test#9
F	T	Impossible
F	F	Impossible

➤ int StopPump()

if (k == 5)

k == 5	Test Case Covering
T	Test#6
F	Test#11

if ((w == 0) && (total < cash))

w == 0	total < cash	Test Case Covering
T	T	Test #9
T	F	Test#9
F	T	Impossible
F	F	Test#4

➤ **int NoReceipt()**

if (k == 6)

k == 6	Test Case Covering
T	Test#10
F	Test#11

➤ **int Receipt()**

if (k == 6)

k == 6	Test Case Covering
T	Test#8
F	Test#11

➤ **int TurnOff()**

if (k == 0)

k == 0	Test Case Covering
T	Test#1
F	Test#13

4.3 Default Transitions

Start

Transition	Default Transition	Test Case Covering
Activate (float a, float b, float d)	Partial (if a b d <=0)	Test#11
PayCredit ()	Yes	Test#11
TurnOff ()	Yes	Test#11
Cancel ()	Yes	Test#11
Reject ()	Yes	Test#11
PayCash (float c)	Yes	Test#11
NoReceipt ()	Yes	Test#11
Receipt ()	Yes	Test#11
StopPump ()	Yes	Test#11
Approved ()	Yes	Test#11
StartPump ()	Yes	Test#11
PumpLiter ()	Yes	Test#11
Super ()	Yes	Test#11
Regular ()	Yes	Test#11
Diesel ()	Yes	Test#11

State S0

Transition	Default Transition	Test Case Covering
Activate (float a, float b, float d)	Yes	Test#12
PayCredit ()	No	NA
TurnOff ()	No	NA
Cancel ()	Yes	Test#12
Reject ()	Yes	Test#12
PayCash (float c)	Partial (if $c \leq 0$)	Test#12
NoReceipt ()	Yes	Test#12
Receipt ()	Yes	Test#12
StopPump ()	Yes	Test#12
Approved ()	Yes	Test#12
StartPump ()	Yes	Test#12
PumpLiter ()	Yes	Test#12
Super ()	Yes	Test#12
Regular ()	Yes	Test#12
Diesel ()	Yes	Test#12

State S2

Transition	Default Transition	Test Case Covering
Activate (float a, float b, float d)	Yes	Test#13
PayCredit ()	Yes	Test#13
TurnOff ()	Yes	Test#13
Cancel ()	Yes	Test#13
Reject ()	No	NA
PayCash (float c)	Yes	Test#13
NoReceipt ()	Yes	Test#13
Receipt ()	Yes	Test#13
StopPump ()	Yes	Test#13
Approved ()	No	NA
StartPump ()	Yes	Test#13
PumpLiter ()	Yes	Test#13
Super ()	Yes	Test#13
Regular ()	Yes	Test#13
Diesel ()	Yes	Test#13

State S3

Transition	Default Transition	Test Case Covering
Activate (float a, float b, float d)	Yes	Test#14
PayCredit ()	Yes	Test#14
TurnOff ()	Yes	Test#14
Cancel ()	No	NA
Reject ()	Yes	Test#14
PayCash (float c)	Yes	Test#14
NoReceipt ()	Yes	Test#14
Receipt ()	Yes	Test#14
StopPump ()	Yes	Test#14
Approved ()	Yes	Test#14
StartPump ()	Yes	Test#14
PumpLiter ()	Yes	Test#14
Super ()	No	NA
Regular ()	No	NA
Diesel ()	No	NA

State S4

Transition	Default Transition	Test Case Covering
Activate (float a, float b, float d)	Yes	Test#15
PayCredit ()	Yes	Test#15
TurnOff ()	Yes	Test#15
Cancel ()	No	NA
Reject ()	Yes	Test#15
PayCash (float c)	Yes	Test#15
NoReceipt ()	Yes	Test#15
Receipt ()	Yes	Test#15
StopPump ()	Yes	Test#15
Approved ()	Yes	Test#15
StartPump ()	No	NA
PumpLiter ()	Yes	Test#15
Super ()	Yes	Test#15
Regular ()	Yes	Test#15
Diesel ()	Yes	Test#15

State S5

Transition	Default Transition	Test Case Covering
Activate (float a, float b, float d)	Yes	Test#16
PayCredit ()	Yes	Test#16
TurnOff ()	Yes	Test#16
Cancel ()	Yes	Test#16
Reject ()	Yes	Test#16
PayCash (float c)	Yes	Test#16
NoReceipt ()	Yes	Test#16
Receipt ()	Yes	Test#16
StopPump ()	No	NA
Approved ()	Yes	Test#16
StartPump ()	Yes	Test#16
PumpLiter ()	No	NA
Super ()	Yes	Test#16
Regular ()	Yes	Test#16
Diesel ()	Yes	Test#16

State S1

Transition	Default Transition	Test Case Covering
Activate (float a, float b, float d)	Yes	Test#18
PayCredit ()	Yes	Test#18
TurnOff ()	Yes	Test#18
Cancel ()	Yes	Test#18
Reject ()	Yes	Test#18
PayCash (float c)	Yes	Test#18
NoReceipt ()	Yes	Test#18
Receipt ()	Yes	Test#18
StopPump ()	Yes	Test#18
Approved ()	Yes	Test#18
StartPump ()	No	NA
PumpLiter ()	No	NA
Super ()	Yes	Test#18
Regular ()	Yes	Test#18
Diesel ()	Yes	Test#18

State S6

Transition	Default Transition	Test Case Covering
Activate (float a, float b, float d)	Yes	Test#17
PayCredit ()	Yes	Test#17
TurnOff ()	Yes	Test#17
Cancel ()	Yes	Test#17
Reject ()	Yes	Test#17
PayCash (float c)	Yes	Test#17
NoReceipt ()	No	NA
Receipt ()	No	NA
StopPump ()	Yes	Test#17
Approved ()	Yes	Test#17
StartPump ()	Yes	Test#17
PumpLiter ()	Yes	Test#17
Super ()	Yes	Test#17
Regular ()	Yes	Test#17
Diesel ()	Yes	Test#17

5. Test Cases and Execution:

Test Case	Description	Transition
1	Activate 4 5 6 TurnOff	T1,T20
2	Activate 1 2 3 PayCredit Reject PayCredit Approved Cancel TurnOff	T1,T2,T3,T2,T4,T5,T20
3	Activate 1 2 3 PayCash 10 Cancel PayCredit Approved Cancel PayCash 10 Regular Cancel TurnOff	T1,T6,T5,T2,T4,T5,T6,T7,T19,T20
4	Activate 1 2 3 PayCash 10 Diesel Cancel PayCash 10 Super Cancel PayCredit Approved Regular StartPump PumpLiter PumpLiter StopPump Receipt TurnOff	T1,T6,T15,T19,T6,T8,T19,T2,T4,T7,T18,T 17,T17, T16,T13,T20
5	Activate 1 2 3 PayCredit Approved Diesel Cancel PayCredit Approved Super StartPump StopPump NoReceipt TurnOff	T1,T2,T4,T15,T19,T2,T4,T8,T18,T16,T14, T20
6	Activate 1 2 3 PayCredit Approved Diesel Cancel PayCredit Approved Diesel StartPump StopPump NoReceipt PayCredit Reject TurnOff	T1,T2,T4,T15,T19,T2,T4,T15,T18,T16,T1 4,T2,T3, T20
7	Activate 1 2 3 PayCash 3 Regular StartPump PumpLiter PumpLiter PumpLiter PumpLiter NoReceipt PayCash 3 Cancel PayCredit Reject PayCash 3 Cancel TurnOff	T1,T6,T7,T9,T10,T10,T10,T12,T14,T6,T5, T2,T3,T6,T5,T20
8	Activate 1 2 3 PayCash 3 Diesel StartPump StopPump Receipt PayCredit Reject TurnOff	T1,T6,T15,T9,T11,T13,T2,T3,T20
9	Activate 1 2 3 PayCash 2 Super StartPump PumpLiter StopPump Receipt PayCash 1 Super StartPump PumpLiter Receipt TurnOff	T1,T6,T8,T9,T10,T11,T13,T6,T8,T9,T12,T 13,T20
10	Activate 1 1 1 PayCash 2 Diesel StartPump StopPump NoReceipt TurnOff	T1,T6,T15,T9,T11,T14,T20
11	Activate 4 5 0 PayCredit TurnOff Cancel Reject PayCash 0 NoReceipt Receipt Diesel Regular Super StartPump StopPump PumpLiter Approved TurnOff PayCredit	No Transition

12	Activate 4 0 6 Reject TurnOff Activate 1 2 3 Activate 1 2 3 Activate 4 5 0 Activate 4 0 6 Cancel Reject PayCash 0 NoReceipt Receipt Diesel Regular Super StartPump StopPump PumpLiter Approved	T1
13	Activate 4 0 0 TurnOff Activate 1 2 3 Activate 4 0 0 PayCredit Activate 1 2 3 Cancel PayCash 0 NoReceipt Receipt Diesel Regular Super StartPump StopPump PumpLiter TurnOff PayCredit	T1,T2
14	Activate 0 4 5 TurnOff Activate 1 2 3 Activate 0 4 5 PayCredit Approved Activate 1 2 3 PayCash 0 PayCredit NoReceipt Receipt StartPump StopPump PumpLiter TurnOff Reject Approved	T1,T2,T4
15	Activate 0 4 0 TurnOff Activate 1 2 3 Activate 0 4 0 PayCredit Approved Diesel Activate 1 2 3 TurnOff PayCash 10 PayCredit NoReceipt Receipt Diesel Regular Super Reject Approved StopPump PumpLiter	T1,T2,T4,T15
16	Activate 0 0 5 PayCash 10 TurnOff Activate 1 2 3 Activate 0 0 5 PayCash 10 Diesel StartPump Activate 1 2 3 TurnOff PayCash 10 PayCredit NoReceipt Receipt Diesel Regular Super Reject Approved Cancel StartPump	T1,T6,T15,T9
17	Activate 0 0 0 PayCash 0 TurnOff Activate 1 2 3 Activate 0 0 0 PayCredit Approved Diesel StartPump StopPump Activate 1 2 3 TurnOff PayCash 10 PayCredit StopPump PumpLiter Approved Diesel Regular Super StartPump Cancel Reject	T1,T2,T4,T15,T18,T16
18	Activate 1 2 3 PayCredit Approved Diesel StartPump Activate 1 2 3 TurnOff PayCash 10 PayCredit NoReceipt Receipt Diesel Regular Super Reject Approved Cancel StartPump	T1,T2,T4,T15,T18

Test Suite – TS.txt Format

Test#1: Activate 4 5 6 TurnOff
Test#2: Activate 1 2 3 PayCredit Reject PayCredit Approved Cancel TurnOff
Test#3: Activate 1 2 3 PayCash 10 Cancel PayCredit Approved Cancel PayCash 10 Regular Cancel TurnOff
Test#4: Activate 1 2 3 PayCash 10 Diesel Cancel PayCash 10 Super Cancel PayCredit Approved Regular StartPump PumpLiter PumpLiter StopPump Receipt TurnOff
Test#5: Activate 1 2 3 PayCredit Approved Diesel Cancel PayCredit Approved Super StartPump StopPump NoReceipt TurnOff
Test#6: Activate 1 2 3 PayCredit Approved Diesel Cancel PayCredit Approved Diesel StartPump StopPump NoReceipt PayCredit Reject TurnOff
Test#7: Activate 1 2 3 PayCash 3 Regular StartPump PumpLiter PumpLiter PumpLiter PumpLiter NoReceipt PayCash 3 Cancel PayCredit Reject PayCash 3 Cancel TurnOff
Test#8: Activate 1 2 3 PayCash 3 Diesel StartPump StopPump Receipt PayCredit Reject TurnOff
Test#9: Activate 1 2 3 PayCash 2 Super StartPump PumpLiter StopPump Receipt PayCash 1 Super StartPump PumpLiter Receipt TurnOff
Test#10: Activate 1 1 1 PayCash 2 Diesel StartPump StopPump NoReceipt TurnOff
Test#11: Activate 4 5 0 PayCredit TurnOff Cancel Reject PayCash 0 NoReceipt Receipt Diesel Regular Super StartPump StopPump PumpLiter Approved TurnOff PayCredit
Test#12: Activate 4 0 6 Reject TurnOff Activate 1 2 3 Activate 1 2 3 Activate 4 5 0 Activate 4 0 6 Cancel Reject PayCash 0 NoReceipt Receipt Diesel Regular Super StartPump StopPump PumpLiter Approved
Test#13: Activate 4 0 0 TurnOff Activate 1 2 3 Activate 4 0 0 PayCredit Activate 1 2 3 Cancel PayCash 0 NoReceipt Receipt Diesel Regular Super StartPump StopPump PumpLiter TurnOff PayCredit
Test#14: Activate 0 4 5 TurnOff Activate 1 2 3 Activate 0 4 5 PayCredit Approved Activate 1 2 3 PayCash 0 PayCredit NoReceipt Receipt StartPump StopPump PumpLiter TurnOff Reject Approved
Test#15: Activate 0 4 0 TurnOff Activate 1 2 3 Activate 0 4 0 PayCredit Approved Diesel Activate 1 2 3 TurnOff PayCash 10 PayCredit NoReceipt Receipt Diesel Regular Super Reject Approved StopPump PumpLiter
Test#16: Activate 0 0 5 PayCash 10 TurnOff Activate 1 2 3 Activate 0 0 5 PayCash 10 Diesel StartPump Activate 1 2 3 TurnOff PayCash 10 PayCredit NoReceipt Receipt Diesel Regular Super Reject Approved Cancel StartPump
Test#17: Activate 0 0 0 PayCash 0 TurnOff Activate 1 2 3 Activate 0 0 0 PayCredit Approved Diesel StartPump StopPump Activate 1 2 3 TurnOff PayCash 10 PayCredit StopPump PumpLiter Approved Diesel Regular Super StartPump Cancel Reject
Test#18: Activate 1 2 3 PayCredit Approved Diesel StartPump Activate 1 2 3 TurnOff PayCash 10 PayCredit NoReceipt Receipt Diesel Regular Super Reject Approved Cancel StartPump
\$\$

Execution and Result**Test#1:**

Activate 4 5 6 TurnOff

Operation	Expected Output	Actual Output
1.At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 4 5 6	Rprice is: 4 Sprice is: 5 Dprice is: 6 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 4 Sprice is: 5 Dprice is: 6 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
3.TurnOff	Rprice is: 4 Sprice is: 5 Dprice is: 6 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 4 Sprice is: 5 Dprice is: 6 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented

Test Result : Pass

Test#2:

Activate 1 2 3 PayCredit Reject PayCredit Approved Cancel TurnOff

Operation	Expected Output	Actual Output
1.At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
3.PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
4.Reject	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
5. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0

	Total is: 0 Cash is: 0 State is: S2	Total is: 0 Cash is: 0 State is: S2
6. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
7. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
8. TurnOff	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be Implemented	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be Implemented

Test Result : Pass

Test#3:

Activate 1 2 3 PayCash 10 Cancel PayCredit Approved Cancel PayCash 10 Regular

Cancel TurnOff

Operation	Expected Output	Actual Output
1. At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
3. PayCash 10	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S3
4. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S0
5. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0

	Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S2	Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S2
6. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S3
7. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S0
8. PayCash 10	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S3
9. Regular	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 10 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 10 State is: S3
10. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 10	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 10

	State is: S0	State is: S0
11. TurnOff	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 10 State is: Cannot be Implemented	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 10 State is: Cannot be Implemented

Test Result : Pass

Test#4:

Activate 1 2 3 PayCash 10 Diesel Cancel PayCash 10 Super Cancel PayCredit Approved

Regular StartPump PumpLiter PumpLiter StopPump Receipt TurnOff

Operation	Expected Output	Actual Output
1. At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
3. PayCash 10	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 10	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 10

	State is: S3	State is: S3
4. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S4
5. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S0
6. PayCash 10	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S3
7. Super	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 10 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 10 State is: S4
8. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 10 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 10 State is: S0
9. PayCredit	Rprice is: 1 Sprice is: 2	Rprice is: 1 Sprice is: 2

	Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 10 State is: S2	Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 10 State is: S2
10. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 2 L is: 0 Total is: 0 Cash is: 10 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 2 L is: 0 Total is: 0 Cash is: 10 State is: S3
11. Regular	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 0 Total is: 0 Cash is: 10 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 0 Total is: 0 Cash is: 10 State is: S4
12. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 0 Total is: 0 Cash is: 10 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 0 Total is: 0 Cash is: 10 State is: S1
13. PumpLiter	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 1 Total is: 1 Cash is: 10 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 1 Total is: 1 Cash is: 10 State is: S1
14. PumpLiter	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 2

	Total is: 2 Cash is: 10 State is: S1	Total is: 2 Cash is: 10 State is: S1
15. StopPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 2 Total is: 2 Cash is: 10 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 2 Total is: 2 Cash is: 10 State is: S6
16. Receipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 2 Total is: 2 Cash is: 10 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 2 Total is: 2 Cash is: 10 State is: S0
17. TurnOff	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 2 Total is: 2 Cash is: 10 State is: Cannot be Implemented	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 1 L is: 2 Total is: 2 Cash is: 10 State is: Cannot be Implemented

Test Result : Pass

Test#5:

Activate 1 2 3 PayCredit Approved Diesel Cancel PayCredit Approved Super StartPump
StopPump NoReceipt TurnOff

Operation	Expected Output	Actual Output
1.At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented

2. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
3. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
4. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
5. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
6. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S0
7. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3	Rprice is: 1 Sprice is: 2 Dprice is: 3

	W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S2	W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S2
8. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S3
9. Super	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 2 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 2 L is: 0 Total is: 0 Cash is: 0 State is: S4
10. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 2 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 2 L is: 0 Total is: 0 Cash is: 0 State is: S1
11. StopPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 2 L is: 0 Total is: 0 Cash is: 0 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 2 L is: 0 Total is: 0 Cash is: 0 State is: S6
12. NoReceipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 2 L is: 0 Total is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 2 L is: 0 Total is: 0

	Cash is: 0 State is: S0	Cash is: 0 State is: S0
13.TurnOff	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 2 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be Implemented	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 2 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be Implemented

Test Result : Pass

Test#6:

Activate 1 2 3 PayCredit Approved Diesel Cancel PayCredit Approved Diesel StartPump
StopPump NoReceipt PayCredit Reject TurnOff

Operation	Expected Output	Actual Output
1.At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
3. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0

	State is: S2	State is: S2
4. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
5. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
6. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S0
7. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S2
8. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S3

9. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
10. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
11. StopPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
12. NoReceipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S0
13. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S2
14. Reject	Rprice is: 1	Rprice is: 1

	Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S0	Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S0
15. TurnOff	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented

Test Result : Pass

Test#7:

Activate 1 2 3 PayCash 3 Regular StartPump PumpLiter PumpLiter PumpLiter PumpLiter

NoReceipt PayCash 3 Cancel PayCredit Reject PayCash 3 Cancel TurnOff

Operation	Expected Output	Actual Output
1. At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
3. PayCash 3	Rprice is: 1 Sprice is: 2	Rprice is: 1 Sprice is: 2

	Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 3 State is: S3	Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 3 State is: S3
4. Regular	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 3 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 3 State is: S4
5. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 3 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 3 State is: S5
6. PumpLiter	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 1 Total is: 1 Cash is: 3 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 1 Total is: 1 Cash is: 3 State is: S5
7. PumpLiter	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 2 Total is: 2 Cash is: 3 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 2 Total is: 2 Cash is: 3 State is: S5
8. PumpLiter	Rprice is: 1 Sprice is: 2 Dprice is: 3	Rprice is: 1 Sprice is: 2 Dprice is: 3

	W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S5	W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S5
9. PumpLiter	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S6
10. NoReceipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S0
11. PayCash 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S3
12. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S0
13. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0

	Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S2	Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S2
14. Reject	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S0
15. PayCash 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S3
16. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: S0
17. TurnOff	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: Cannot be Implemented	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 1 L is: 3 Total is: 3 Cash is: 3 State is: Cannot be Implemented

Test Result : Pass

Test#8:

Activate 1 2 3 PayCash 3 Diesel StartPump StopPump Receipt PayCredit Reject TurnOff

Operation	Expected Output	Actual Output
1. At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
3. PayCash 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 3 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 3 State is: S3
4. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 3 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 3 State is: S4
5. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0

	Total is: 0 Cash is: 3 State is: S5	Total is: 0 Cash is: 3 State is: S5
6. StopPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 3 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 3 State is: S6
7. Receipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 3 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 3 State is: S0
8. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 3 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 3 State is: S2
9. Reject	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 3 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 3 State is: S0
10. TurnOff	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 3 State is: Cannot be Implemented	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 3 State is: Cannot be Implemented

Test Result : Pass

Test#9:

Activate 1 2 3 PayCash 2 Super StartPump PumpLiter StopPump Receipt PayCash 1 Super
StartPump PumpLiter Receipt TurnOff

Operation	Expected Output	Actual Output
1. At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
3. PayCash 2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 2 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 2 State is: S3
4. Super	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 2 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 2 State is: S4
5. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0

	Price is: 2 L is: 0 Total is: 0 Cash is: 2 State is: S5	Price is: 2 L is: 0 Total is: 0 Cash is: 2 State is: S5
6. PumpLiter	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 1 Total is: 2 Cash is: 2 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 1 Total is: 2 Cash is: 2 State is: S5
7. StopPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 1 Total is: 2 Cash is: 2 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 1 Total is: 2 Cash is: 2 State is: S6
8. Receipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 1 Total is: 2 Cash is: 2 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 1 Total is: 2 Cash is: 2 State is: S0
9. PayCash 1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 1 Total is: 2 Cash is: 1 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 1 Total is: 2 Cash is: 1 State is: S3
10. Super	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 1 Total is: 2 Cash is: 1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 1 Total is: 2 Cash is: 1

	State is: S4	State is: S4
11. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 1 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 1 State is: S5
12. PumpLiter	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 1 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 1 State is: S6
13. Receipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 1 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 1 State is: S0
14. TurnOff	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 1 State is: Cannot be Implemented	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 2 L is: 0 Total is: 0 Cash is: 1 State is: Cannot be Implemented

Test Result : Pass

Test#10:

Activate 1 1 1 PayCash 2 Diesel StartPump StopPump NoReceipt TurnOff

Operation	Expected Output	Actual Output
1. At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 1 1 1	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
3. PayCash 2	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 2 State is: S3	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 2 State is: S3
4. Diesel	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 2 State is: S4	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 2 State is: S4
5. StartPump	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 1 L is: 0	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 1 L is: 0

	Total is: 0 Cash is: 2 State is: S5	Total is: 0 Cash is: 2 State is: S5
6. StopPump	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 2 State is: S6	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 2 State is: S6
7. NoReceipt	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 2 State is: S0	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 2 State is: S0
8. TurnOff	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 2 State is: Cannot be Implemented	Rprice is: 1 Sprice is: 1 Dprice is: 1 W is: 0 Price is: 1 L is: 0 Total is: 0 Cash is: 2 State is: Cannot be Implemented

Test Result : Pass

Test#11:

Activate 4 5 0 PayCredit TurnOff Cancel Reject PayCash 0 NoReceipt Receipt Diesel Regular

Super StartPump StopPump PumpLiter Approved TurnOff PayCredit

Operation	Expected Output	Actual Output
1. At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented

2. Activate 4 5 0	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
3. PayCredit	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
4. TurnOff	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
5. Cancel	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
6. Reject	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
7. PayCash 0	Rprice is: 0 Sprice is: 0	Rprice is: 0 Sprice is: 0

	Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
8. NoReceipt	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
9. Receipt	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
10. Diesel	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
11. Regular	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
12. Super	Rprice is: 0 Sprice is: 0 Dprice is: 0	Rprice is: 0 Sprice is: 0 Dprice is: 0

	W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
13. StartPump	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
14. StopPump	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
15. PumpLiter	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
16. Approved	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
17. TurnOff	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0

	Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
18. PayCredit	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented

Test Result : Pass

Test#12:

Activate 4 0 6 Reject TurnOff Activate 1 2 3 Activate 1 2 3 Activate 4 5 0 Activate 4 0 6 Cancel

Reject PayCash 0 NoReceipt Receipt Diesel Regular Super StartPump StopPump PumpLiter

Approved

Operation	Expected Output	Actual Output
1. At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 4 0 6	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
3. Reject	Rprice is: 0 Sprice is: 0 Dprice is: 0	Rprice is: 0 Sprice is: 0 Dprice is: 0

	W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
4. TurnOff	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot be Implemented
5. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
6. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
7. Activate 4 5 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
8. Activate 4 0 6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0

	L is: 0 Total is: 0 Cash is: 0 State is: S0	L is: 0 Total is: 0 Cash is: 0 State is: S0
9. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
10. Reject	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
11. PayCash 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
12. NoReceipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
13. Receipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0

	Total is: 0 Cash is: 0 State is: S0	Total is: 0 Cash is: 0 State is: S0
14. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
15. Regular	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
16. Super	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
17. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
18. StopPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0

	Cash is: 0 State is: S0	Cash is: 0 State is: S0
19. PumpLiter	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
20.Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0

Test Result : Pass

Test#13:

Activate 4 0 0 TurnOff Activate 1 2 3 Activate 4 0 0 PayCredit Activate 1 2 3 Cancel PayCash 0

NoReceipt Receipt Diesel Regular Super StartPump StopPump PumpLiter TurnOff PayCredit

Operation	Expected Output	Actual Output
1.At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 4 0 0	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0

	State is: Cannot Be implemented	State is: Cannot Be implemented
3. TurnOff	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
4. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
5. Activate 4 0 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
6. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
7. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2

8. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
9. PayCash 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
10. NoReceipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
11. Receipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
12. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
13. Regular	Rprice is: 1	Rprice is: 1

	Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
14. Super	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
15. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
16. StopPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
17. PumpLiter	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
18. TurnOff	Rprice is: 1 Sprice is: 2	Rprice is: 1 Sprice is: 2

	Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
19. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2

Test Result : Pass

Test#14:

Activate 0 4 5 TurnOff Activate 1 2 3 Activate 0 4 5 PayCredit Approved Activate 1 2 3
PayCash 0 PayCredit NoReceipt Receipt StartPump StopPump PumpLiter TurnOff Reject
Approved

Operation	Expected Output	Actual Output
1. At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 0 4 5	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
3. TurnOff	Rprice is: 0 Sprice is: 0	Rprice is: 0 Sprice is: 0

	Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
4. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
5. Activate 0 4 5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
6. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
7. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
8. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1

	Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
9. PayCash 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
10. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
11. NoReceipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
12. Receipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
13. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0

	L is: 0 Total is: 0 Cash is: 0 State is: S3	L is: 0 Total is: 0 Cash is: 0 State is: S3
14. StopPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
15. PumpLiter	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
16. TurnOff	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
17. Reject	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
18. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0

	Total is: 0 Cash is: 0 State is: S3	Total is: 0 Cash is: 0 State is: S3
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Test Result : Pass

Test#15:

Activate 0 4 0 TurnOff Activate 1 2 3 Activate 0 4 0 PayCredit Approved Diesel Activate 1 2 3

TurnOff PayCash 10 PayCredit NoReceipt Receipt Diesel Regular Super Reject Approved

StopPump PumpLiter

Operation	Expected Output	Actual Output
1. At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 0 4 0	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
3. TurnOff	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
4. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0

	Cash is: 0 State is: S0	Cash is: 0 State is: S0
5. Activate 0 4 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
6. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
7. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
8. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
9. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
10. TurnOff	Rprice is: 1 Sprice is: 2	Rprice is: 1 Sprice is: 2

	Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
11. PayCash 10	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
12. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
13. NoReceipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
14. Receipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
15. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0

	Total is: 0 Cash is: 0 State is: S4	Total is: 0 Cash is: 0 State is: S4
16. Regular	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
17 Super	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
18. Reject	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
19. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
20. StopPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4

21. PumpLiter	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
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Test Result : Pass

Test#16:

Activate 0 0 5 PayCash 10 TurnOff Activate 1 2 3 Activate 0 0 5 PayCash 10 Diesel StartPump

Activate 1 2 3 TurnOff PayCash 10 PayCredit NoReceipt Receipt Diesel Regular Super Reject

Approved Cancel StartPump

Operation	Expected Output	Actual Output
1. At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 0 0 5	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
3. PayCash 10	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
4. TurnOff	Rprice is: 0 Sprice is: 0	Rprice is: 0 Sprice is: 0

	Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
5. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
6. Activate 0 0 5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
7. PayCash 10	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 10 State is: S3
8. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S4
9. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0

	Total is: 0 Cash is: 10 State is: S5	Total is: 0 Cash is: 10 State is: S5
10. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5
11. TurnOff	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5
12. PayCash 10	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5
13. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5
14. NoReceipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5

15. Receipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5
16. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5
17. Regular	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5
18. Super	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5
19. Reject	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5
20. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0

	Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5	Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5
21. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5
22. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 3 L is: 0 Total is: 0 Cash is: 10 State is: S5

Test Result : Pass

Test#17:

Activate 0 0 0 PayCash 0 TurnOff Activate 1 2 3 Activate 0 0 0 PayCredit Approved Diesel
StartPump StopPump Activate 1 2 3 TurnOff PayCash 10 PayCredit StopPump PumpLiter
Approved Diesel Regular Super StartPump Cancel Reject

Operation	Expected Output	Actual Output
1. At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 0 0 0	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0

	Total is: 0 Cash is: 0 State is: Cannot Be implemented	Total is: 0 Cash is: 0 State is: Cannot Be implemented
3. PayCash 0	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
4. TurnOff	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
5. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
6. Activate 0 0 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
7. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2

8. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S3
9. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
10. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
11. StopPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
12. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
13. TurnOff	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1

	Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
14. PayCash 10	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
15. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
16. StopPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
17. PumpLiter	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
18. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0

	State is: S6	State is: S6
19. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
20. Regular	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
21. Super	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
22. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
23. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
24. Reject	Rprice is: 1 Sprice is: 2 Dprice is: 3	Rprice is: 1 Sprice is: 2 Dprice is: 3

	W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6	W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S6
--	--	--

Test Result : Pass

Test#18:

Activate 1 2 3 PayCredit Approved Diesel StartPump Activate 1 2 3 TurnOff PayCash 10

PayCredit NoReceipt Receipt Diesel Regular Super Reject Approved Cancel StartPump

Operation	Expected Output	Actual Output
1. At Start State	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented	Rprice is: 0 Sprice is: 0 Dprice is: 0 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: Cannot Be implemented
2. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S0
3. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 0 Price is: 0 L is: 0 Total is: 0 Cash is: 0 State is: S2
4. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 0

	L is: 0 Total is: 0 Cash is: 0 State is: S3	L is: 0 Total is: 0 Cash is: 0 State is: S3
5. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S4
6. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
7. Activate 1 2 3	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
8. TurnOff	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
9. PayCash 10	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1

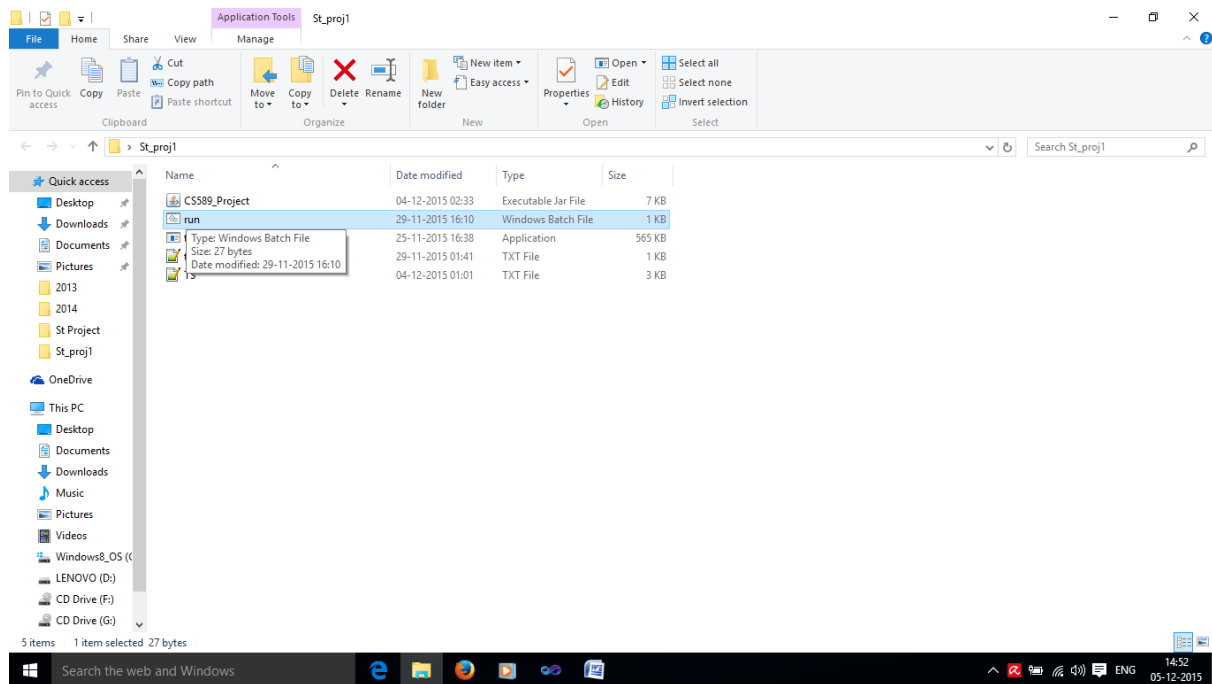
10. PayCredit	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
11. NoReceipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
12. Receipt	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
13. Diesel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
14. Regular	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
15. Super	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1

	Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
16. Reject	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
17. Approved	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
18. Cancel	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1
19. StartPump	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1	Rprice is: 1 Sprice is: 2 Dprice is: 3 W is: 1 Price is: 3 L is: 0 Total is: 0 Cash is: 0 State is: S1

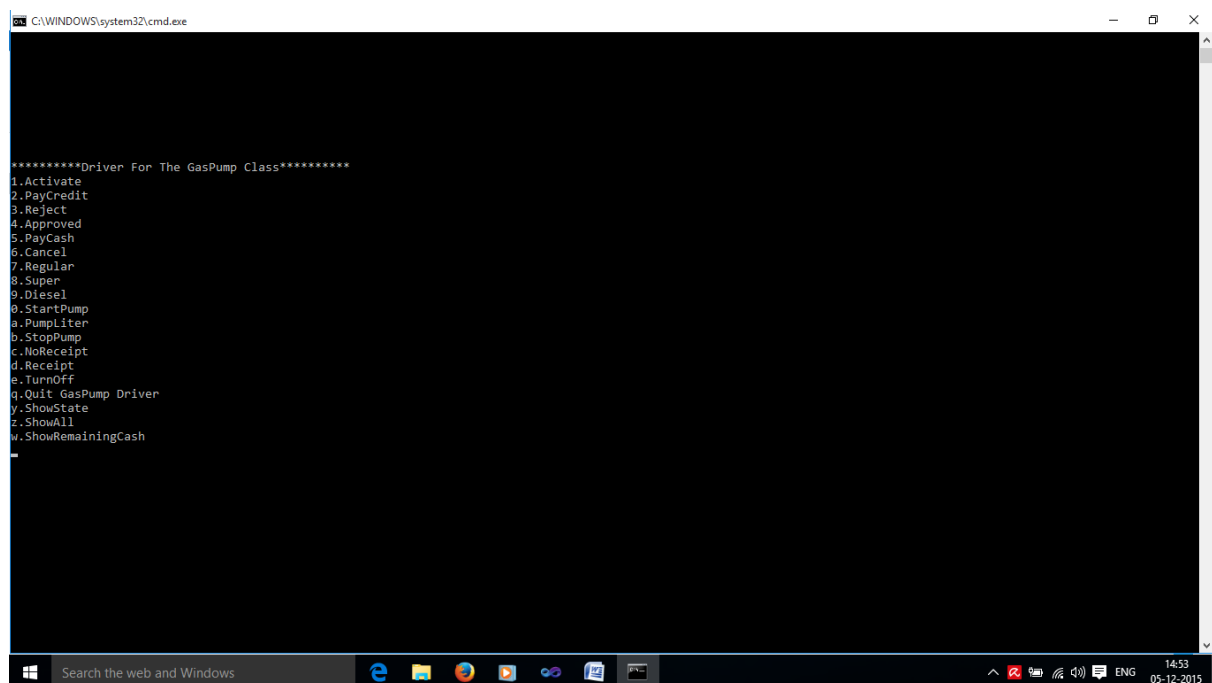
Test Result : Pass

6. Screenshots:

1.Run the bat file by double clicking on it



2.The Driver gets open

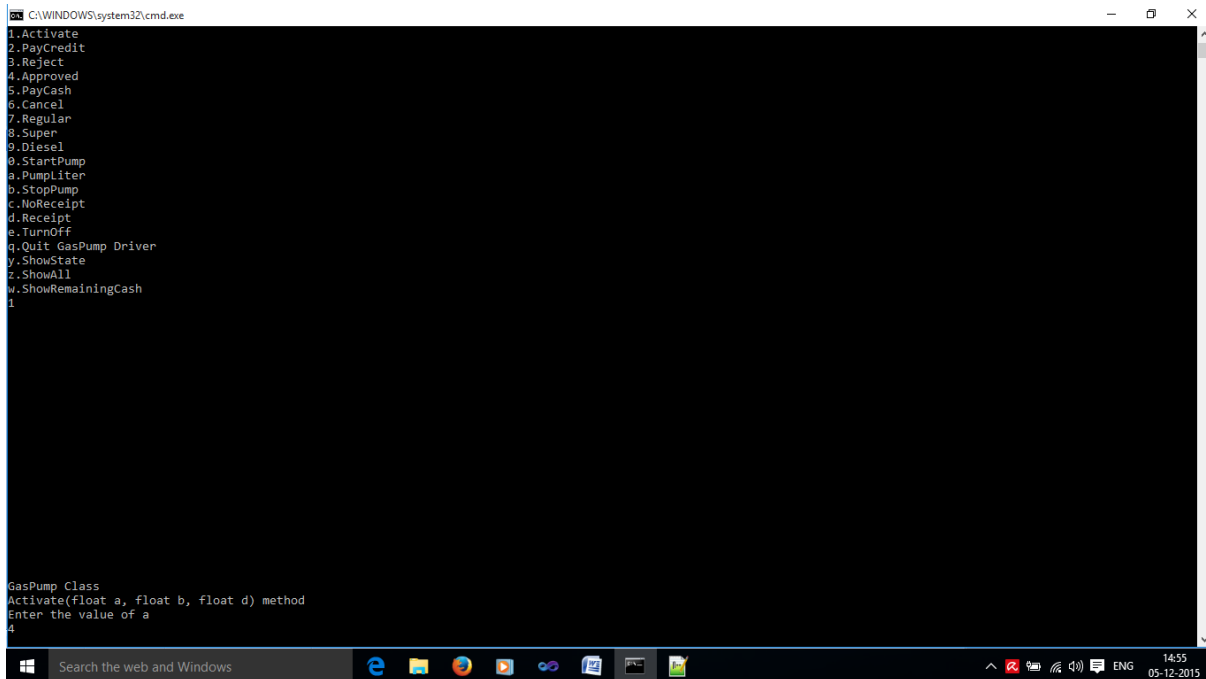


3. Execute test-cases from test-suite TS.txt

Execution of Test#1 is shown the rest follows similar procedure

Test#1: Activate 4 5 6 TurnOff

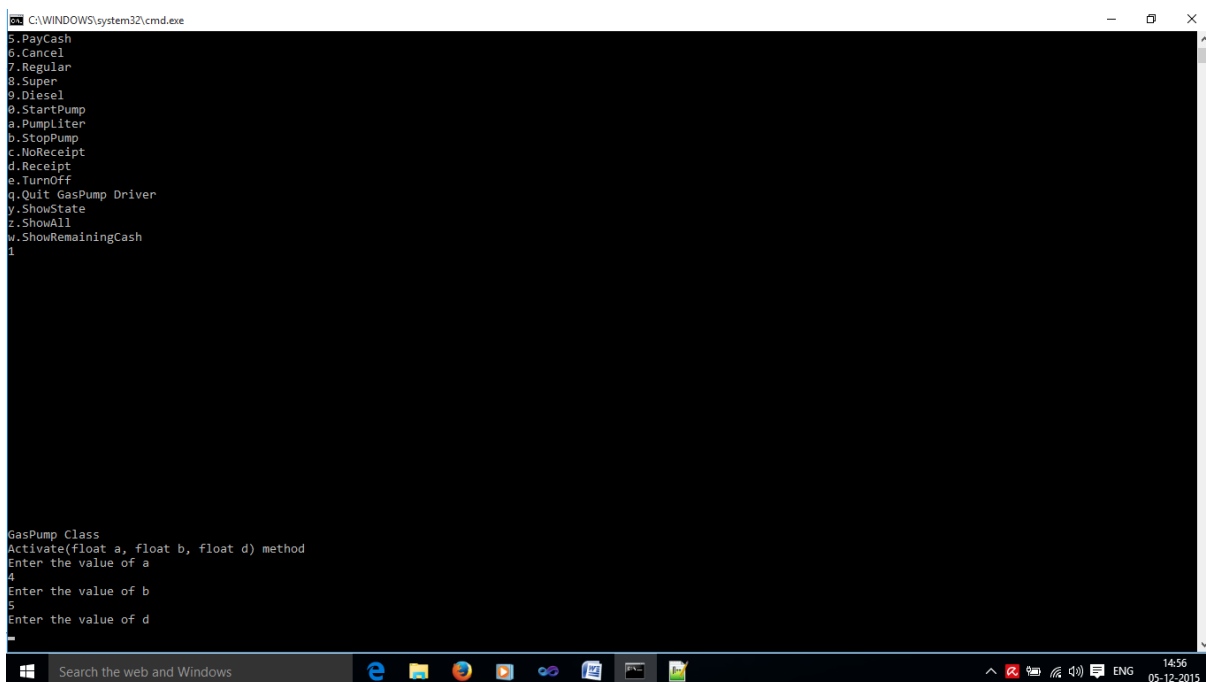
a. Enter the value of a = 4



```
C:\WINDOWS\system32\cmd.exe
1.Activate
2.PayCredit
3.Reject
4.Approved
5.PayCash
6.Cancel
7.Regular
8.Super
9.Diesel
0.StartPump
a.PumPliter
b.StopPump
c.NoReceipt
d.Receipt
e.TurnOff
q.Quit GasPump Driver
y.ShowState
z.ShowAll
w.ShowRemainingCash
1
Enter the value of a
4
```

GasPump Class
Activate(float a, float b, float d) method
Enter the value of a
4

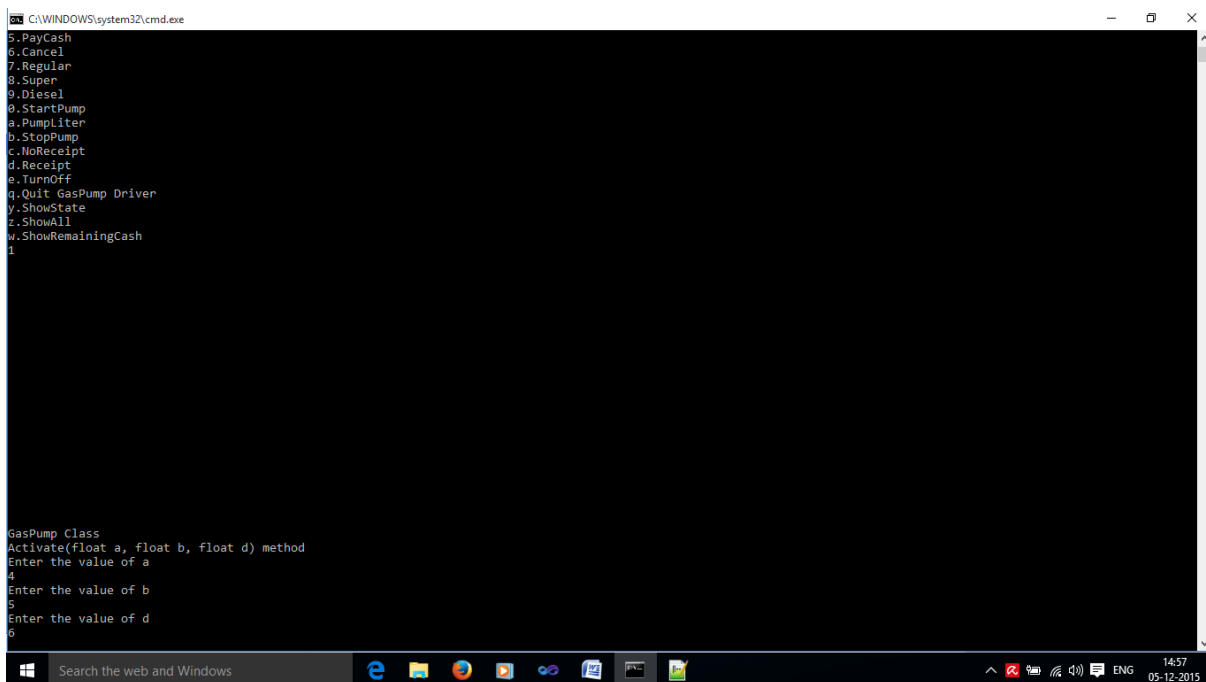
b. Enter the value of b = 5



```
C:\WINDOWS\system32\cmd.exe
5.PayCash
6.Cancel
7.Regular
8.Super
9.Diesel
0.StartPump
a.PumPliter
b.StopPump
c.NoReceipt
d.Receipt
e.TurnOff
q.Quit GasPump Driver
y.ShowState
z.ShowAll
w.ShowRemainingCash
1
Enter the value of a
4
Enter the value of b
5
```

GasPump Class
Activate(float a, float b, float d) method
Enter the value of a
4
Enter the value of b
5

c. Enter the value of d = 6

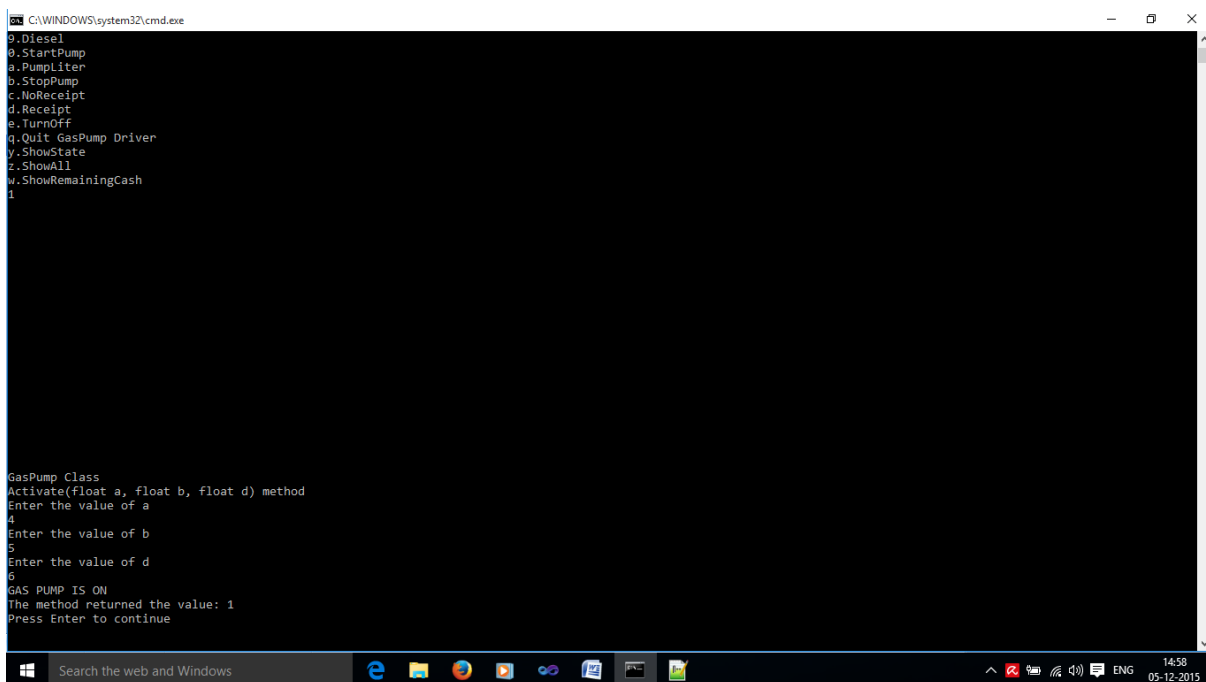


```
C:\WINDOWS\system32\cmd.exe
5. PayCash
6. Cancel
7. Regular
8. Super
9. Diesel
0. StartPump
a. PumpLiter
b. StopPump
c. NoReceipt
d. Receipt
e. TurnOff
q. Quit GasPump Driver
y. ShowState
z. ShowAll
w. ShowRemainingCash
1

```

GasPump Class
Activate(float a, float b, float d) method
Enter the value of a
4
Enter the value of b
5
Enter the value of d
6

If Successful 1 will be returned else 0 will be returned

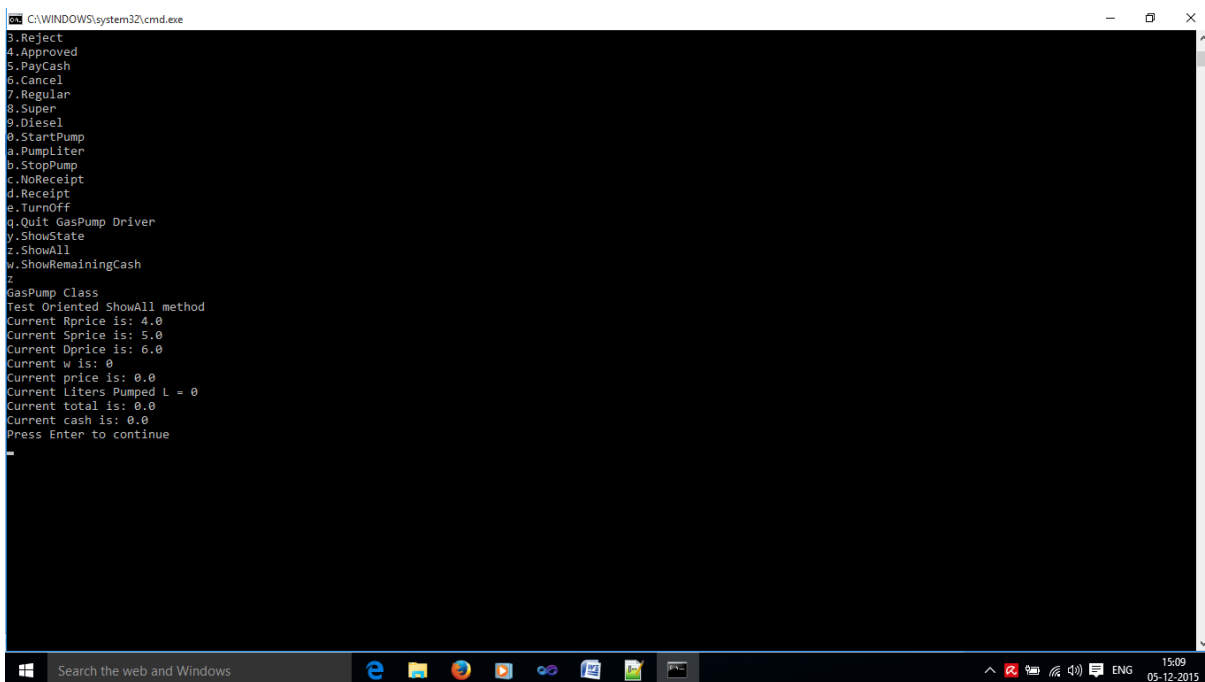


```
C:\WINDOWS\system32\cmd.exe
9. Diesel
0. StartPump
a. PumpLiter
b. StopPump
c. NoReceipt
d. Receipt
e. TurnOff
q. Quit GasPump Driver
y. ShowState
z. ShowAll
w. ShowRemainingCash
1

```

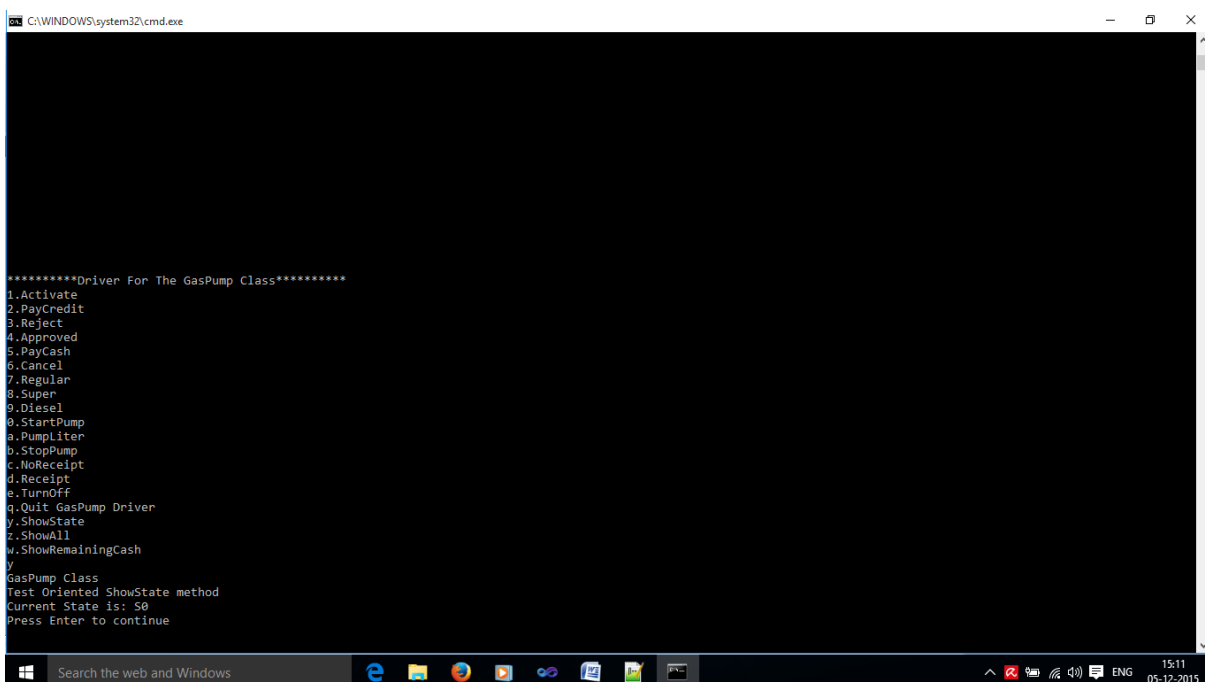
GasPump Class
Activate(float a, float b, float d) method
Enter the value of a
4
Enter the value of b
5
Enter the value of d
6
GAS PUMP IS ON
The method returned the value: 1
Press Enter to continue

d. Select z to display all values



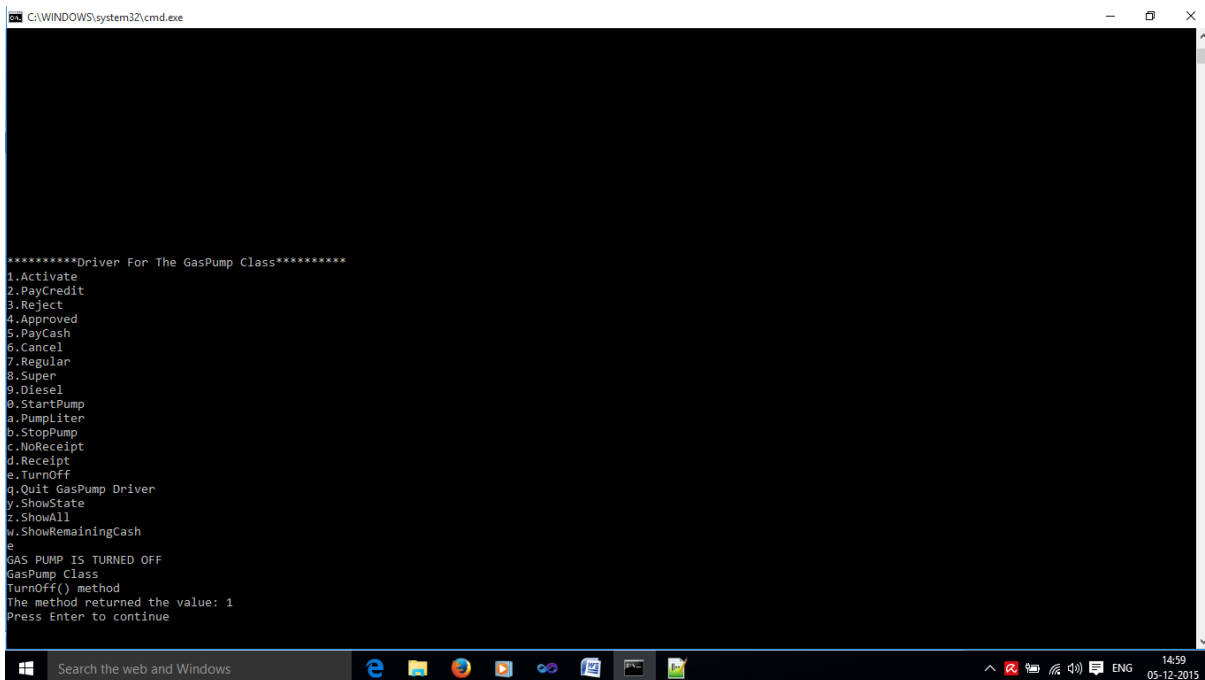
```
C:\WINDOWS\system32\cmd.exe
3.Reject
4.Approved
5.PayCash
6.Cancel
7.Regular
8.Super
9.Diesel
0.StartPump
a.PumpLiter
b.StopPump
c.NoReceipt
d.Receipt
e.TurnOff
q.Quit GasPump Driver
y.ShowState
z.ShowAll
w.ShowRemainingCash
z
GasPump Class
Test Oriented ShowAll method
Current Rprice is: 4.0
Current Sprice is: 5.0
Current Dprice is: 6.0
Current w is: 0
Current price is: 0.0
Current Liters Pumped L = 0
Current total is: 0.0
Current cash is: 0.0
Press Enter to continue
```

e. Select y to Show the current state



```
C:\WINDOWS\system32\cmd.exe
*****Driver For The GasPump Class*****
1.Activate
2.PayCredit
3.Reject
4.Approved
5.PayCash
6.Cancel
7.Regular
8.Super
9.Diesel
0.StartPump
a.PumpLiter
b.StopPump
c.NoReceipt
d.Receipt
e.TurnOff
q.Quit GasPump Driver
y.ShowState
z.ShowAll
w.ShowRemainingCash
y
GasPump Class
Test Oriented ShowState method
Current State is: 50
Press Enter to continue
```

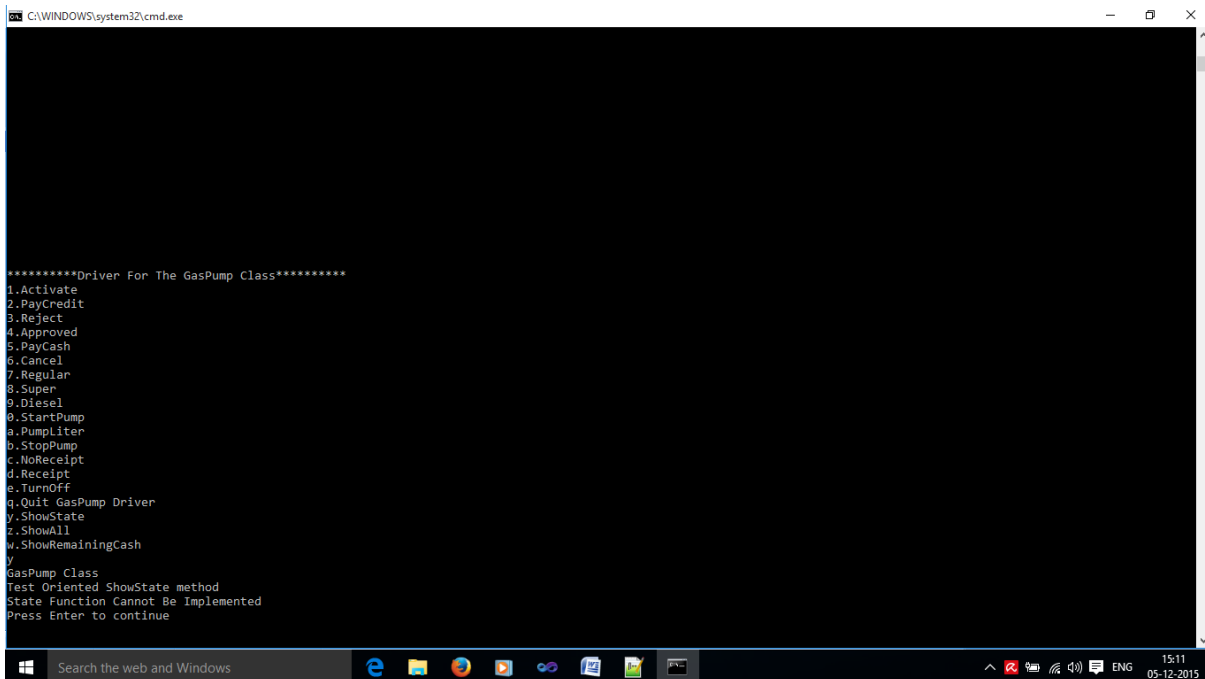
f. Select e to TurnOff



```
C:\WINDOWS\system32\cmd.exe

*****Driver For The GasPump Class*****
1.Activate
2.PayCredit
3.Reject
4.Approved
5.PayCash
6.Cancel
7.Regular
8.Super
9.Diesel
0.StartPump
a.PumPliter
b.StopPump
c.NoReceipt
d.Receipt
e.TurnOff
q.Quit GasPump Driver
y.ShowState
z.ShowAll
w.ShowRemainingCash
e
GAS PUMP IS TURNED OFF
GasPump Class
TurnOff() method
The method returned the value: 1
Press Enter to continue
```

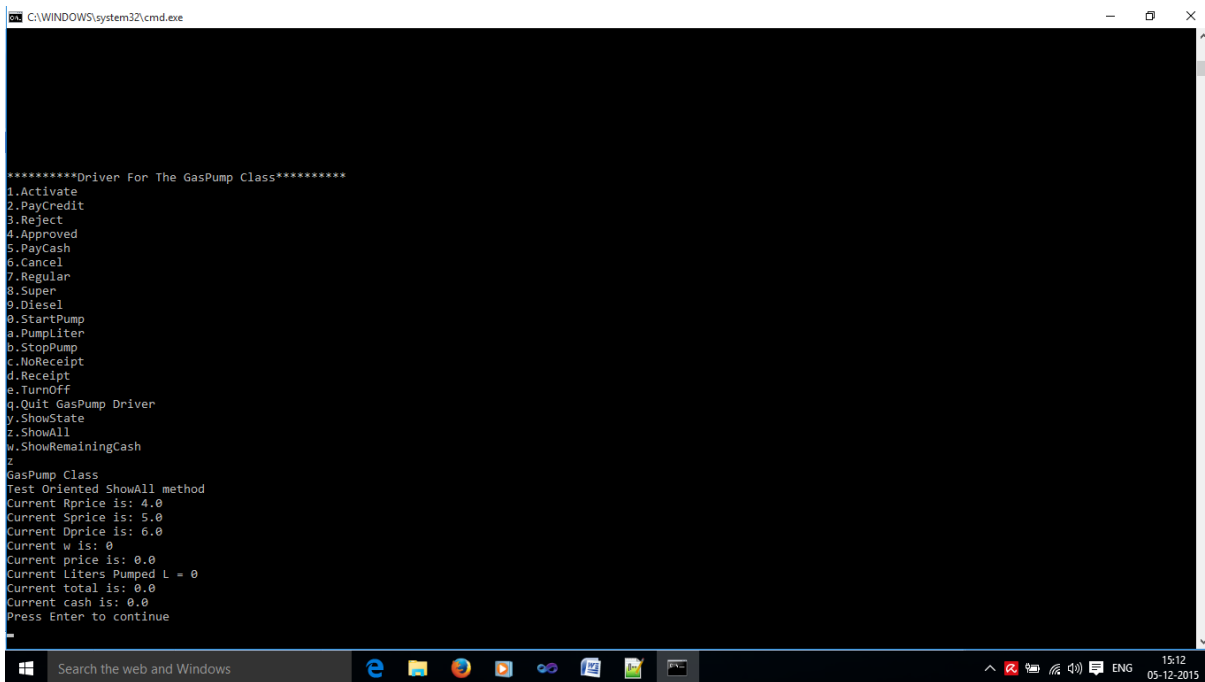
g. Select y to Show state



```
C:\WINDOWS\system32\cmd.exe

*****Driver For The GasPump Class*****
1.Activate
2.PayCredit
3.Reject
4.Approved
5.PayCash
6.Cancel
7.Regular
8.Super
9.Diesel
0.StartPump
a.PumPliter
b.StopPump
c.NoReceipt
d.Receipt
e.TurnOff
q.Quit GasPump Driver
y.ShowState
z.ShowAll
w.ShowRemainingCash
y
GasPump Class
Test Oriented ShowState method
State Function Cannot Be Implemented
Press Enter to continue
```

h. Select z to Show the values of all variables



```
C:\WINDOWS\system32\cmd.exe

*****Driver For The GasPump Class*****
1.Activate
2.PayCredit
3.Reject
4.Approved
5.PayCash
6.Cancel
7.Regular
8.Super
9.Diesel
0.StartPump
a.Pumpliter
b.StopPump
c.NoReceipt
d.Receipt
e.TurnOff
q.Quit GasPump Driver
y.ShowState
z.ShowAll
w.ShowRemainingCash
Z
GasPump Class
Test Oriented ShowAll method
Current Rprice is: 4.0
Current Sprice is: 5.0
Current Dprice is: 6.0
Current w is: 0
Current price is: 0.0
Current Liters Pumped L = 0
Current total is: 0.0
Current cash is: 0.0
Press Enter to continue
```

Conclusion:

- After testing the GasPump Class for the Multiple Condition Testing, Default Transitions and Transition Pairing I have concluded that there have been no defects found for the class by the following methods.
- If there are any bugs/defects that do exist, they have not been found through this method of testing.
- If this method of testing is to be considered then the application can be deemed defect free and ready to use.