SOFTWARE TESTING & ANALYSIS

PROJECT REPORT

CS 589

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Fall 2015

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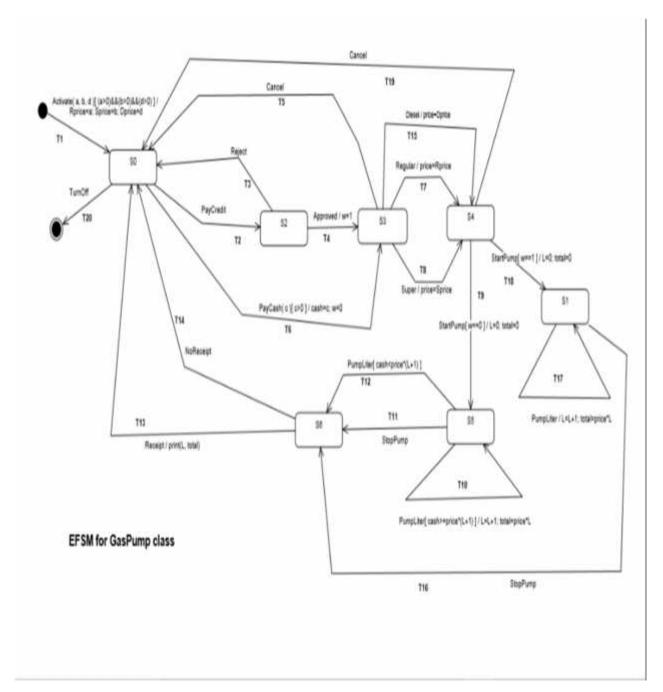# Introduction

The aim of this project is to test GasPump class that exhibits state behaviour specified by the EFSM (Extended Finite State Machine) model and detect any defects associated with it. It releases 3 types of fuels: Regular, Super, Diesel. If any of the test cases is non executable, the corresponding justification is to be provided and identify any bugs or defects in the source code respectively. The price of all three fuels is provided, even before the EFSM is activated. The 3 methods or testing techniques used in this project are:

I. Model-based testing of the GasPump class

II. Testing default (ghost) transitions of the GasPump class

III. Multiple-condition testing

EFSM MODEL

EFSM for GasPump class

TRANSITION PAIR TESTING

The states as well as their incoming and outgoing transitions are:

State S0

Incoming Transitions: T1, T3, T5, T13, T14, T19

Outgoing Transitions: T2, T6, T20

Transition Pairs

(T1, T2), (T1, T6), (T1, T20)

(T3, T2), (T3, T6), (T3, T20)

(T5, T2), (T5, T6), (T5, T20)

(T13, T2), (T13, T6), (T13, T20)

(T14, T2), (T14, T6), (T14, T20)

(T19, T2), (T19, T6), (T19, T20)

State S1

Incoming Transitions: T17, T18

Outgoing Transitions: T16, T17

Transition Pairs

(T17, T16), (T17, T17)
(T18, T16), (T18, T17)

State S2

Incoming Transitions: T2

Outgoing Transitions: T3, T4

Transition Pairs

(T2, T3)
(T2, T4)

State S3

Incoming Transitions: T4, T6

Outgoing Transitions: T5, T7, T8, T15

Transition Pairs:

(T4, T5), (T4, T7), (T4, T8), (T4, T15)
(T6, T5), (T6, T7), (T6, T8), (T6, T15)

State S4

Incoming Transitions: T7, T8, T15

Outgoing Transitions: T9, T18, T19

Transition Pairs:

(T7, T9), (T7, T18), (T7, T19)
(T8, T9), (T8, T18), (T8, T19)
(T15, T9), (T15, T18), (T15, T19)

State S5

Incoming Transitions: T9, T10

Outgoing Transitions: T11, T12

Transition Pairs:

(T9, T10), (T9, T11), (T9, T12)
(T10, T10), (T10, T11), (T10, T12)

State S6

Incoming Transitions: T11, T12, T16

Outgoing Transitions: T13, T14

Transition Pairs:

(T11, T13), (T11, T14)
(T12, T13), (T12, T14)
(T16, T13), (T16, T14)

TEST CASES

Test #1:

Activate(5.5,6.9,3.5),PayCredit(),Approved(),Super(),StartPump(),
PumpLiter(),StopPump(),Receipt(),TurnOff()

Transitions Covered:

(T1,T2), (T2,T4), (T4,T8), (T8,T18),(T18,T17),(T17,T16),(T16,T13),(T13,T20)

Test #2:

Activate(5.5,6.9,3.5), PayCredit(),Approved(), Regular(), StartPump(),
PumpLiter(), PumpLiter() StopPump(), Receipt(), PayCredit(),Reject(),
TurnOff()

Transitions Covered:

(T1,T2), (T2,T4), (T4,T7), (T7,T18),(T18,T17),(T17,T17),(T17,T16),(T16,T13),

(T13,T2),(T2,T3),(T3,T20)

Test #3:

Activate (5.5,6.9,3.5), TurnOff()

Transitions Covered:

(T1, T20)

Test #4:

Activate(5.5, 6.9, 3.5), PayCredit(), Reject(), PayCredit(), Approved(), Cancel(), PayCredit(), Approved(), Regular(), StartPump(), PumpLiter(), StopPump(), Receipt(), TurnOff()

Transitions Covered:

(T1,T2),(T2,T3),(T3,T2),(T2,T4),(T4,T5),(T5,T2),(T2,T4),(T4,T7),(T7,T18),(T18,T17),(T17,T16),(T16,T14) (T14,T20)

Test #5:

Activate(5.9, 8.9, 2.5), PayCredit(), Approved(), Cancel(), TurnOff()

Transitions Covered:

(T1,T2),(T2,T4),(T4,T5),(T5,T20)

Test #6:

Activate(6.8, 7.8, 3.9), PayCash(2), Cancel(), PayCash(20), Regular(), Cancel(), TurnOff()

Transitions Covered:

(T1,T6),(T6,T5),(T5,T6),(T6,T7),(T7,T19),(T19,20)

Test #7:

Activate (6.5, 7.4, 4.3), PayCash (1), Cancel(), PayCash(20), Super(), StartPump(), StopPump(), Receipt(), TurnOff()

Transitions Covered:

(T1,T6),(T6,T5),(T5,T6),(T6,T8),(T8,T9),(T9,T11),(T11,T13),(T13,T20)

Test #8:

Activate(5.5, 6.9, 3.5), PayCredit(), Reject(), PayCash(30), Diesel(), StartPump(), StopPump(), NoReceipt(), PayCredit(), Reject(), TurnOff()

Transitions Covered:

(T1,T2), (T2,T3), (T3,T6), (T6,T15),(T15,T9),(T9,T11),(T11,T14),(T14,T2),

(T2,T3),(T3,T20)

Test #9:

Activate(5.5, 6.8, 4.2), PayCredit(), Approved(),Cancel(), PayCash(2), Diesel(), StartPump(),PumpLiter(),Receipt(),PayCash(3),Cancel(),Turnoff()

Transitions Covered:

(T1,T2), (T2,T4), (T4,T5), (T5,T6),(T6,T15),(T15,T9),(T9,T12),(T12,T13),

(T13,T6),(T6,T5),(T5,T20)

Test #10:

Activate(4.5, 5.8, 2.7), PayCredit(), Approved(), Super(), Cancel(), TurnOff()

Transitions Covered:

(T1,T2), (T2,T4), (T4,T8), (T8,T19),(T19,T20)

Test #11:

Activate(5.5, 6.7, 2.3), PayCash(20),Super(), StartPump(), PumpLiter(), PumpLiter(), StopPump(),Receipt(), TurnOff()

Transitions Covered:

(T1,T6),(T6,T8),(T8,T9),(T8,T9),(T9,T10),(T10,T10),(T10,T11),(T11,T13),(T13,T20)

Test #12:

Activate(4,5,6),PayCredit(),Reject(),PayCredit(),Approved(),Diesel(),StartPump(),StopPump(),NoReceipt(),PayCash(),Cancel(),Turnoff()

Transitions Covered:

(T1,T2),(T2,T3),(T3,T2),(T2,T4),(T4,T15),(T15,T18),(T18,T16),(T16,T14),(T14,T6),(T6,T5),(T5,T20)

Test #13:

Activate(4.5, 5.2, 3.5), PayCredit(), Approved(), Diesel(), Cancel(), PayCash(10), Regular(), Cancel(), TurnOff()

Transitions Covered:

(T1,T2), (T2,T4), (T4,T15), (T15,T19),(T19,T6),(T6,T7),(T7,T19),(T19,T20)

Test #14:

Activate(3,4,5),PayCash(20),Super(),StartPump(),PumpLiter(),PumpLiter(),StopPump(),StopPump(),Receipt(),Turnoff()

Transitions Covered:

(T1,T6), (T6,T8), (T8,T9), (T9,T10),(T10,T10),(T10,T11),(T11,T13),(T13,T20)

Test #15:

Activate(3,4,5),PayCash(7),Regular(),StartPump(),PumpLiter(),PumpLiter(),PumpLiter(),Receipt(), TurnOff()

Transitions Covered:

(T1,T6), (T6,T7), (T7,T9), (T9,T10),(T10,T10),(T10,T12),(T12,T13),(T13,T20)

Test #16:

Activate(3,4,5),PayCredit(),Reject(),PayCash(20),Diesel(),Cancel(),PayCredit(), Reject(),Turnoff()

Transitions Covered:

(T1,T2),(T2,T3),(T3,T6),(T6,T15),(T15,T19),(T19,T2),(T2,T3),(T3,T20).

GHOST TRANSITION TESTING

LIST OF GHOST TRANSITIONS FOR EVERY STATE:

STATE S0

Activate ( )

Reject ( )

Approved ( )

Regular ( )

Diesel ( )

Super ( )

StartPump ( )

PumpLiter ( )

StopPump ( )

Receipt ( )

NoReceipt ( )

Cancel ( )

STATE S1

Activate ( )

PayCash ( )

PayCredit ( )

Reject ( )

Approved ( )

Regular ( )

Diesel ( )

Super ( )

StartPump ( )

Receipt ( )

NoReceipt ( )

Cancel ( )

Turnoff ( )

STATE S2

Activate ( )

PayCash ( )

PayCredit ( )

Regular ( )

Diesel ( )

Super ( )

StartPump ( )

PumpLiter ( )

StopPump ( )

Receipt ( )

NoReceipt ( )

Cancel ( )

Turnoff ( )

STATE S3

Activate ( )

PayCash ( )

PayCredit ( )

Reject ( )

Approved ( )

StartPump ( )

PumpLiter ( )

StopPump ( )

Receipt ( )

NoReceipt ( )

Turnoff ( )

STATE S4

Activate ( )

PayCash ( )

PayCredit ( )

Reject ( )

Approved ( )

Regular ( )

Diesel ( )

Super ( )

PumpLiter ( )

StopPump ( )

Receipt ( )

NoReceipt ( )

Turnoff ( )

STATE S5

Activate ( )

PayCash ( )

PayCredit ( )

Reject ( )

Approved ( )

Regular ( )

Diesel ( )

Super ( )

StartPump ( )

Receipt ( )

NoReceipt ( )

Cancel ( )

Turnoff ( )

STATE S6

Activate ( )

PayCash ( )

PayCredit ( )

Reject ( )

Approved ( )

Regular ( )

Diesel ( )

Super ( )

StartPump ( )

PumpLiter ( )

StopPump ( )

Cancel ( )

Turnoff ( )

TEST CASES

Test #17(S0):

Activate(4.5,5.7,3.2), Activate(4,8.8,2.5), PayCash(-20), Reject(), Cancel(), Approved(), Regular(), Diesel(), Super(), StartPump(), PumpLiter(), StopPump(), Receipt (), NoReceipt (), PayCash (20), Cancel (), Turnoff().

Test #18(S1):

Activate(4.5,5.7,3.2),PayCredit(),Approved(),Super(),StartPump(),Activate (4,5,9),PayCredit(),Cancel(),Reject(),PayCash(50),Approved(),Regular(),Diesel() Super(),PumpLiter(),StopPump(),Receipt(),Turnoff()

Test #19(S2):

Activate(4.5,5.7,3.2),PayCredit(),Activate(5,6,7),PayCash(10),PayCredit(),Can cel(),Super(),Regular(),Diesel(),StartPump(),PumpLiter(),StopPump(), Receipt(),NoReceipt(), Turnoff(),Reject(),Turnoff()

Test #20(S3):

Activate(3,5,7),PayCash(15),Activate(3,5,8),PayCredit(),PayCash(10),Reject(), Approved(),StartPump(),PumpLiter(),StopPump(),NoReceipt(),Receipt(),Turnof f(),Cancel(),Turnoff()

Test #21(S4):

Activate(4,5,6),PayCredit(),Approved(),Regular(),Activate(2,3,4),Approved(),Pa yCredit(),Reject(),PayCash(5),Regular(),Super(),Diesel(),PumpLiter(),StopPum p(),NoReceipt(),Receipt(),Turnoff(),StartPump(), Receipt(),Turnoff()

Test #22(S5):

Activate(4,5,6),PayCash(30),Regular(),StartPump(),Activate(1,3,2),PayCredit(), Cancel(),Reject(),Approved(),PayCash(2),Regular(),Super(),Diesel(),StartPump( ),NoReceipt(),Receipt(),Turnoff(),PumpLiter(),StopPump(), Receipt(),Turnoff()

Test # 23(S6):

Activate(4,5,6),PayCredit(),Approved(),Regular(),StartPump(),StopPump(),Activate(2,3,5),PayCredit(),Reject(),Approved(),Cancel(),PayCash(6),Regular(),Super(),Diesel(),StartPump(),PumpLiter(),StopPump(),Turnoff(),Receipt(),Turnoff()

MULTIPLE CONDITION TESTING

This is basically a code based testing technique. It is carried out for all the 15 actions of the GasPump class.

1. Method Activate (float a, float b, float d)

Condition: ((k == -1) && (a > 0) && (b > 0) && (d > 0))

Condition C1: k==-1

Condition C2: a>0

Condition C3: b>0

Condition C4: d>0

C1	C2	C3	C4	Test Case
T	T	T	T	Test#1
T	T	T	F	Test#24
T	T	F	T	Test#25
T	T	F	F	Test#26
T	F	T	T	Test#27
T	F	T	F	Test#28
T	F	F	T	Test#29
T	F	F	F	Test#30
F	T	T	T	Test#31
F	T	T	F	Test#31
F	T	F	T	Test#32
F	T	F	F	Test#33
F	F	T	T	Test#34
F	F	T	F	Test#35
F	F	F	T	Test#36
F	F	F	F	Test#37

Test #24:

Activate (4, 5, -6)

Test #25:

Activate (4, -5, 6)

Test #26:

Activate (4, -5, -6)

Test #27:

Activate (-4, 5, 6)

Test #28:

Activate (-4, 5, -6)

Test #29:

Activate (-4, -5, 6)

Test #30:

Activate (-4, -5, -6)

Test #31:

Activate (4, 5, 6), Activate (4, 5, -6)

Test #32:

Activate (4, 5, 6), Activate (4, -5, 6)

Test #33:

Activate (4, 5, 6), Activate (4, -5, -6)

Test #34:

Activate (4, 5 ,6), Activate (-4, 5, 6)

Test #35:

Activate (4, 5, 6), Activate (-4, 5, -6)

Test #36:

Activate (4, 5, 6), Activate (-4,-5, 6)

Test #37:

Activate (4, 5, 6), Activate (-4, -5, -6)

Test #38:

Activate (4, 5, 6), PayCash (1), Cancel(), Turnoff()

Test #39:

Activate(4,5,6) ,PayCash(-5), PayCash(6), PayCredit(), Regular(), Cancel(), TurnOff()

Test #40:

Activate(4,5,6), PayCash(-4), PayCash(6), PayCredit(), Super(), StartPump(), PumpLiter(), StopPump(), NoReceipt(), TurnOff()

Test #41:

Activate(4,5,6), Receipt(), NoReceipt(), PayCash(9), Super() ,StartPump(), PumpLiter(), PumpLiter(), Receipt(), TurnOff()

Test #42:

Activate(2,3,4), PayCash(10), Diesel(), StartPump(), PumpLiter(), StopPump(), Receipt(), TurnOff()

Test#43:

Activate(2,3,4), PayCash(3), Super(), StartPump(),PumpLiter(), StopPump() Receipt(), TurnOff()

Test #44:

Activate(4,5,6), PayCredit(), PayCash(-5),PayCash(6), Approved(),Super() PumpLiter(),StartPump(), PumpLiter(), StartPump(),StopPump(), TurnOff() Receipt(), TurnOff()

Test #45:

Activate(4,5,6),PayCash(3),Cancel(),PayCredit(),Approved(),Regular(),StartPump(),PumpLiter(), StopPump(),NoReceipt(),Turnoff()

Method PayCredit ()

Condition: k==0

Condition	Test Cases
T	Test#1
F	Test#19

Method Reject ()

Condition: k==2

Condition	Test Cases
T	Test#16
F	Test#17

Method Approved ()

Condition: k==2

Condition	Test Cases
T	Test#1
F	Test#17

Method Cancel ()

Condition: k==3||k==4

C1: k==3

C2: k==4

C1	C2	Test Cases
T	T	Impossible (J1)
T	F	Test#9
F	T	Test#16
F	F	Test#3

Method PayCash (float c)

Condition: k==0 && c>0

C1: k==0

C2: c>0

C1	C2	Test Cases
T	T	Test#38
T	F	Test#39
F	T	Test#11
F	F	Test#1

Method Regular ()

Condition: k==3

Condition	Test Cases
T	Test#15
F	Test#17

Method Super ()

Condition: k==3

Condition	Test Cases
T	Test#1
F	Test#17

Method Diesel ()

Condition: k==3

Condition	Test Cases
T	Test#9
F	Test#17

Method StartPump ()

Condition: k==4

Condition	Test Cases
T	Test#9
F	Test#17

Method PumpLiter ()

Condition: $((w == 1)$ || $((cash >= price * (L + 1)) \&\& (w == 0))$

Condition C1: $w == 1$

Condition C2: $cash >= price * (L + 1)$

Condition C3: $w == 0$

C1	C2	C3	Test Cases
T	T	T	Impossible (J2)
T	T	F	Test#45
T	F	T	Impossible (J3)
T	F	F	Test#1
F	T	T	Test#11
F	T	F	Impossible (J4)
F	F	T	Test#38
F	F	F	Impossible (J5)

Condition: ((w == 0) || (cash < price * (L + 1))

Condition C1: w==0

Condition C2: cash < price * (L + 1)

C1	C2	Test Cases
T	T	Test#40
T	F	Impossible (J6)
F	T	Impossible (J7)
F	F	Impossible (J8)

Condition: ((w == 0) && (total < cash))

Condition C1: w==0

Condition C2: total < cash

C1	C2	Test Cases
T	T	Test#40
T	F	Test#41
F	T	Impossible (J9)
F	F	Impossible (J10)

<u>Method StopPump ()</u>

<u>Condition:</u> k==5

Condition	Test Cases
T	Test#12
F	Test#17

<u>Condition:</u> ((w == 0) && (total < cash))

Condition C1: w==0

Condition C2: total < cash

C1	C2	Test Cases
T	T	Test#42
T	F	Test#43
F	T	Impossible (J11)
F	F	Test#44

Method NoReceipt ()

Condition: k==6

Condition	Test Case
T	Test#12
F	Test#17

Method Receipt ()

Condition: k==0

Condition	Test Case
T	Test#1
F	Test#17

Method Turnoff ()

Condition: k==4

Condition	Test Case
T	Test#2
F	Test#17

JUSTIFICATIONS:

J1: Here, it is not possible for both the values of k i.e. k=3 and k=4 to be true at the same time, as only one of them can be invoked for a particular test case and that particular value of k will be true at that time and not the other one.

J2: Here, it is not possible for all the values to be true at the same time, because if w==1 is true, then the state s1 will be invoked, while if w==0 and cash >=price*(L+1), then the state s5 will be invoked, but not both at the same time.

J3: Here, it is not possible for the values of w to be 1 and 0 at the same time. As, two different types of payment can't be done at the same time.

J4: For C2 to be true, it is necessary that either w=1 or w=0 i.e. for PumpLiter() to be true, at least one type of payment method should be true.

J5: Here, it is not possible for all the values to be false, because w=0 by default, even if we consider the test case as activate method and then turnoff.

J6: Here, this is not possible, because this will work only when ((w == 1) || ((cash >= price * (L + 1)) && (w == 0)) is false. But if it is false, then ((w == 0) || (cash < price * (L + 1)) never be true. Hence, it wouldn't enter in the else if loop only. So, it is non executable.

J7: Here, it is not possible for C1 to be false and C2 to be true because, if C1 is false it would mean that cash was not used as a method of payment, and hence the constraint of cash being less than the said price, as in C2 will never happen, so it is not executable.

J8: Here, it is not possible for C1 and C2 to be false at the same time, because, if C1 is false, it would mean that the method of payment was not cash but credit maybe, and if C2 is false, it means that the cash is greater than or equal to the price value, which is not possible, if the method of payment was not cash in the first place. Hence, this is non executable.

J9: Here, it is not possible for C1 to be false and C2 to be true because, if C1 is false, it means that the method of payment was not cash. If, c2 is true, it means that the total value is less than cash value, which cannot be true, because, if cash was not used to make a payment, then the value of total being less than it does not arise. Hence, this is non executable.

J10: Here, it is not possible for both the conditions to be false at the same time, because if C1 is false, it would mean that the method of payment was not cash, while if C2 is false, it would mean that the total value is greater than the cash value, which is impossible in the first place itself, if cash is not used as a method of payment. Hence, this is non executable.

J11: Here, it is not possible for C1 to be false, because it would mean that the method of payment was not cash, but in this case it is not possible to invoke StopPump(), i.e. if the method of payment is not cash.

GasPump.java

```java
public class GasPump {
      private float Rprice;
      private float Sprice;
      private float Dprice;
      private int w;
      private float price;
      private int L;
      private float total;
      private float cash;
      private int k;

      public GasPump() {
            Rprice = 0;
            Sprice = 0;
            Dprice = 0;
            w = 0;
            price = 0;
            L = 0;
            total = 0;
            cash = 0;
            k = -1;
      }
      public float getPrice(){
            return price;
      }

      public float getTotal(){
            return total;
      }

      public float getRegularPrice(){
            return Rprice;
      }

      public float getSuperPrice(){
            return Sprice;
      }
      public float getDieselPrice(){
            return Dprice;
      }

      public int getNumberOfGallons(){
            return L;
      }

      public float getCash(){
            return cash;
      }

      public int getW(){
            return w;
      }

      public int getState(){
            int s=k;
            if(k==5 && w==1)
            {s=1;}
```

```java
            return s;
        }

        public final int Activate(float a, float b, float d) {
            if ((k == -1) && (a > 0) && (b > 0) && (d > 0)) {
                k = 0;
                Rprice = a;
                Sprice = b;
                Dprice = d;
                System.out.print("GAS PUMP IS ON");
                System.out.print("\n");
                return 1;
            } else {
                return 0;
            }

        }

        public final int PayCredit() {
            if (k == 0) {
                k = 2;
                System.out.print("CHECKING CREDIT CARD.");
                System.out.print("\n");
                return 1;
            } else {
                return 0;
            }
        }

        public final int Reject() {
            if (k == 2) {
                k = 0;
                System.out.print("CREDIT CARD IS REJECTED.");
                System.out.print("\n");
                return 1;
            } else {
                return 0;
            }
        }

        public final int Cancel() {
            if ((k == 3) || (k == 4)) {
                k = 0;
                System.out.print("TRANSACTION IS CANCELLED.");
                System.out.print("\n");
                if (w == 0) {
                    System.out.print("$");
                    System.out.print(cash);
                    System.out.print(" OF CASH IS RETURNED");
                    System.out.print("\n");
                }
                return 1;
            } else {
                return 0;
            }
        }

        public final int Approved() {
            if (k == 2) {
                k = 3;
                w = 1;
```

```java
                System.out.print("CREDIT CARD APPROVED.");
                System.out.print("\n");
                System.out.print("SELECT TYPE OF GASOLINE:");
                System.out.print("\n");
                System.out.print("a. REGULAR");
                System.out.print("\n");
                System.out.print("b. SUPER");
                System.out.print("\n");
                System.out.print("c. DIESEL");
                System.out.print("\n");
                return 1;
        } else {
                return 0;
        }
    }

    public final int PayCash(float c) {
        if ((k == 0) && (c > 0)) {
                k = 3;
                w = 0;
                cash = c;
                System.out.print("SELECT TYPE OF GASOLINE:");
                System.out.print("\n");
                System.out.print("a. REGULAR");
                System.out.print("\n");
                System.out.print("b. SUPER");
                System.out.print("\n");
                System.out.print("c. DIESEL");
                System.out.print("\n");
                return 1;
        } else {
                return 0;
        }
    }

    public final int Regular() {
        if (k == 3) {
                k = 4;
                System.out.print("REGULAR IS SELECTED.");
                System.out.print("\n");
                price = Rprice;
                return 1;
        } else {
                return 0;
        }
    }

    public final int Super() {
        if (k == 3) {
                k = 4;
                System.out.print("SUPER IS SELECTED.");
                System.out.print("\n");
                price = Sprice;
                return 1;
        } else {
                return 0;
        }
    }

    public final int Diesel() {
        if (k == 3) {
```

```java
                    k = 4;
                    System.out.print("DIESEL IS SELECTED.");
                    System.out.print("\n");
                    price = Dprice;
                    return 1;
            } else {
                    return 0;
            }
      }

      public final int StartPump() {
            if (k == 4) {
                    k = 5;
                    L = 0;
                    total = 0;
                    System.out.print("PUMP IS READY TO DISPOSE ");
                    System.out.print("\n");
                    System.out.print("# OF LITERS PUMPED: ");
                    System.out.print(L);
                    System.out.print("\n");
                    System.out.print("TOTAL CHARGE: $");
                    System.out.print(total);
                    System.out.print("\n");
                    return 1;
            } else {
                    return 0;
            }
      }

      public final int PumpLiter() {
            if (k == 5) {
                    if ((w == 1) || ((cash >= price * (L + 1)) && (w == 0)))
      {
                            L = L + 1;
                            total = L * price;
                            System.out.print("# OF LITERS PUMPED: ");
                            System.out.print(L);
                            System.out.print("\n");
                            System.out.print("TOTAL CHARGE: $");
                            System.out.print(total);
                            System.out.print("\n");
                            System.out.print("CONTINUE PUMPING");
                            System.out.print("\n");
                            return 1;
                    } else if ((w == 0) && (cash < price * (L + 1))) {
                            k = 6;
                            System.out.print("PUMP STOPPED. NOT SUFFICIENT
      FUNDS. ");
                            System.out.print("\n");
                            System.out.print("# OF LITERS PUMPED: ");
                            System.out.print(L);
                            System.out.print("\n");
                            System.out.print("TOTAL CHARGE: $");
                            System.out.print(total);
                            System.out.print("\n");
                            if ((w == 0) && (total < cash)) {
                                    System.out.print("$");
                                    System.out.print(cash - total);
                                    System.out.print(" OF CASH IS RETURNED");
                                    System.out.print("\n");
                            }
```

```java
                    System.out.print("DO YOU WANT A RECEIPT?");
                    System.out.print("\n");
                    return 1;
                }
                ;
            }
            ;
            return 0;
    }

    public final int StopPump() {
        if (k == 5) {
            k = 6;
            System.out.print("PUMP STOPPED. ");
            System.out.print("\n");
            System.out.print("# OF LITERS PUMPED: ");
            System.out.print(L);
            System.out.print("\n");
            System.out.print("TOTAL CHARGE: $");
            System.out.print(total);
            System.out.print("\n");
            if ((w == 0) && (total < cash)) {
                System.out.print("$");
                System.out.print(cash - total);
                System.out.print(" OF CASH IS RETURNED");
                System.out.print("\n");
            }
            System.out.print("DO YOU WANT A RECEIPT?");
            System.out.print("\n");
            return 1;
        } else {
            return 0;
        }
    }

    public final int NoReceipt() {
        if (k == 6) {
            k = 0;
            System.out.print("NO RECEIPT IS PRINTED ");
            System.out.print("\n");
            return 1;
        } else {
            return 0;
        }
    }

    public final int Receipt() {
        if (k == 6) {
            k = 0;
            System.out.print("RECEIPT IS PRINTED: ");
            System.out.print("\n");
            System.out.print("# OF LITERS PUMPED: ");
            System.out.print(L);
            System.out.print("\n");
            System.out.print("TOTAL CHARGE: $");
            System.out.print(total);
            System.out.print("\n");
            return 1;
        } else {
            return 0;
        }
```

```java
        }

    public final int TurnOff() {
        if (k == 0) {
            k = -2;
            System.out.print("GAS PUMP IS TURNED OFF ");
            System.out.print("\n");
            return 1;
        } else {
            return 0;
        }
    }
}
```

testdriverclass.java

```java
import java.io.*;
import java.util.*;

public class testdriverclass extends GasPump
{
public static void main(String args[]) throws IOException
    {
            GasPump gp=new GasPump();
            float a,b,d,cash;
            Scanner scan=new Scanner(System.in);
            int x;

        System.out.println("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t
CS 589: FALL 2015");

        System.out.println("\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t\t
PROJECT DEMO");
            System.out.print("Press enter to continue");
            scan.nextLine();


            int i=0;
            int k;

            while(i==0)
            {
            System.out.println("Test Driver for 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("10. StartPump");
            System.out.println("11. PumpLiter");
            System.out.println("12. StopPump");
            System.out.println("13. NoReceipt");
            System.out.println("14. Receipt");
            System.out.println("15. TurnOff");
            System.out.println();
            System.out.println();
            System.out.println();
            System.out.println("Testing Related Methods");
            System.out.println("16. ShowState");
            System.out.println("17. ShowPrice");
            System.out.println("18. Show value of W");
            System.out.println("19. Number of Gallons Pumped");

            //System.out.println("18. Display");
            //System.out.println("19. Number of Gallons Pumped");
            System.out.println("20. Quit");
            System.out.println("Please select any option");
```

```java
                x=scan.nextInt();

                switch(x)
                {
                        case 1:
                        System.out.println("GasPump Class");
                        System.out.println("Activate(float a,float b,float d)
method");
                        System.out.println();
                        System.out.println("Enter Regular Price");
                        a=scan.nextFloat();
                        System.out.println("Enter Super Price");
                        b=scan.nextFloat();
                        System.out.println("Enter Diesel Price");
                        d=scan.nextFloat();
                        System.out.println("Result is: "+gp.Activate(a,b,d));
                        System.out.print("Press enter to continue");
                        scan.nextLine();
                        scan.nextLine();
                        break;


                        case 2:
                        System.out.println("GasPump Class");
                        System.out.println("PayCredit() method");
                        System.out.println();
                        System.out.println("Result is: "+gp.PayCredit());
                        System.out.print("Press enter to continue");
                        scan.nextLine();
                        scan.nextLine();
                        break;


                        case 3:
                        System.out.println("GasPump Class");
                        System.out.println("Reject() method");
                        System.out.println();
                        System.out.println("Result is: "+gp.Reject());
                        System.out.print("Press enter to continue");
                        scan.nextLine();
                        scan.nextLine();
                        break;


                        case 4:
                        System.out.println("GasPump Class");
                        System.out.println("Approved() method");
                        System.out.println();
                        System.out.println("Result is: "+gp.Approved());
                        System.out.print("Press enter to continue");
                        scan.nextLine();
                        scan.nextLine();
                        break;


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

```java
                    cash=scan.nextFloat();
                    System.out.println("Result is: "+gp.PayCash(cash));
                    System.out.print("Press enter to continue");
                    scan.nextLine();
                    scan.nextLine();
                    break;

                    case 6:
                    System.out.println("GasPump Class");
                    System.out.println("Cancel() method");
                    System.out.println();
                    System.out.println("Result is : "+gp.Cancel());
                    System.out.print("Press enter to continue");
                    scan.nextLine();
                    scan.nextLine();
                    break;

                    case 7:
                    System.out.println("GasPump Class");
                    System.out.println("Regular() method");
                    System.out.println();
                    System.out.println("Result is: "+gp.Regular());
                    System.out.print("Press enter to continue");
                    scan.nextLine();
                    scan.nextLine();
                    break;

                    case 8:
                    System.out.println("GasPump Class");
                    System.out.println("Super() method");
                    System.out.println();
                    System.out.println("Result is: "+gp.Super());
                    System.out.print("Press enter to continue");
                    scan.nextLine();
                    scan.nextLine();
                    break;

                    case 9:
                    System.out.println("GasPump Class");
                    System.out.println("Diesel() method");
                    System.out.println();
                    System.out.println("Result is: "+gp.Diesel());
                    System.out.print("Press enter to continue");
                    scan.nextLine();
                    scan.nextLine();
                    break;

                    case 10:
                    System.out.println("GasPump Class");
                    System.out.println("StartPump() method");
                    System.out.println();
                    System.out.println("Result is: "+gp.StartPump());
                    System.out.print("Press enter to continue");
                    scan.nextLine();
                    scan.nextLine();
                    break;

                    case 11:
                    System.out.println("GasPump Class");
                    System.out.println("PumpLiter() method");
                    System.out.println();
```

```java
                System.out.println("Result is: "+gp.PumpLiter());
                System.out.print("Press enter to continue");
                scan.nextLine();
                scan.nextLine();
                break;

                case 12:
                System.out.println("GasPump Class");
                System.out.println("StopPump() method");
                System.out.println();
                System.out.println("Result is: "+gp.StopPump());
                System.out.print("Press enter to continue");
                scan.nextLine();
                scan.nextLine();
                break;

                case 13:
                System.out.println("GasPump Class");
                System.out.println("NoReceipt() method");
                System.out.println();
                System.out.println("Result is: "+gp.NoReceipt());
                System.out.print("Press enter to continue");
                scan.nextLine();
                scan.nextLine();
                break;

                case 14:
                System.out.println("GasPump Class");
                System.out.println("Receipt() method");
                System.out.println();
                System.out.println("Result is: "+gp.Receipt());
                System.out.print("Press enter to continue");
                scan.nextLine();
                scan.nextLine();
                break;

                case 15:
                System.out.println("GasPump Class");
                System.out.println("TurnOff() method");
                System.out.println();
                System.out.println("Result is: "+gp.TurnOff());
                System.out.print("Press enter to continue");
                scan.nextLine();
                scan.nextLine();
                break;


                case 16:
                System.out.println("The State is: "+gp.getState());
                System.out.print("Press enter to continue");
                scan.nextLine();
                scan.nextLine();
                scan.nextLine();
                break;



                    case 17:
                        System.out.println("Price: $ "+gp.getPrice());
                        System.out.println("Total: $"+gp.getTotal());
```

```java
                        System.out.println("Cash: $"+gp.getCash());
                        System.out.print("Press enter to continue");
                        scan.nextLine();
                        scan.nextLine();
                        scan.nextLine();
                        break;

                        case 18:
                        System.out.println("Value of w: "+gp.getW());
                        System.out.print("Press enter to continue");
                        scan.nextLine();
                        scan.nextLine();
                        scan.nextLine();
                        break;

                        case 19:
                        System.out.println("Number of Gallons pumped:
"+gp.getNumberOfGallons());
                        System.out.print("Press enter to continue");
                        scan.nextLine();
                        scan.nextLine();
                        scan.nextLine();
                        break;



                    case 20:
                    System.out.println("Quit");




                    i=1;
                    break;

                    default:
                    System.out.println("Please enter valid input");
                    System.out.print("Press enter to continue");
                    scan.nextLine();
                    scan.nextLine();

            }
            }
        }
}
```

TRANSITION PAIR TESTING TEST CASE EXECUTION

Test # 1:

Activate(5.5,6.9,3.5), PayCredit(),Approved(), Super(), StartPump(), PumpLiter(), StopPump(), Receipt(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
5.5
Enter Super Price
6.9
Enter Diesel Price
3.5
GAS PUMP IS ON
Result is: 1



Please select any option

2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1


Please select any option
4
GasPump Class
Approved() method

CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1



Please select any option
8
GasPump Class
Super() method

SUPER IS SELECTED.
Result is: 1
```

```
Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1


Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $6.9
CONTINUE PUMPING
Result is: 1


Please select any option
12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 1
TOTAL CHARGE: $6.9
DO YOU WANT A RECEIPT?
Result is: 1


Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 1
TOTAL CHARGE: $6.9
Result is: 1


Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
```

```
Please select any option
16
The State is: -2


Please select any option
17
Price: $ 6.9
Total: $6.9
Cash: $0.0


Please select any option
18
Value of w: 1
Press enter to continue



Please select any option
19
Number of Gallons pumped: 1

20
Quit
```

Test #2:

Activate(5.5,6.9,3.5), PayCredit(),Approved(), Regular(), StartPump(),
PumpLiter(), PumpLiter() StopPump(), Receipt(), PayCredit(),Reject(),
TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
5.5
Enter Super Price
6.9
Enter Diesel Price
3.5
GAS PUMP IS ON
Result is: 1



Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
```

```
Please select any option
4
GasPump Class
Approved() method

CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1

Please select any option
7
GasPump Class
Regular() method

REGULAR IS SELECTED.
Result is: 1



Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1

Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.5
CONTINUE PUMPING
Result is: 1


Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 2
TOTAL CHARGE: $11.0
CONTINUE PUMPING
Result is: 1

Please select any option
12
GasPump Class
StopPump() method
```

```
Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 2
TOTAL CHARGE: $11.0
Result is: 1

Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue

Please select any option
3
GasPump Class
Reject() method

CREDIT CARD IS REJECTED.
Result is: 1
Press enter to continue

Please select any option
15
GasPump Class
TurnOff() method

Please select any option
16
The State is: -2
Press enter to continue

Please select any option
17
Price: $ 5.5
Total: $11.0
Cash: $0.0
Press enter to continue

Please select any option
18
Value of w: 1
Press enter to continue

Please select any option
19
Number of Gallons pumped: 2
Press enter to continue


20
Quit
```

Test #3:

Activate(5.5,6.9,3.5), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
5.5
Enter Super Price
6.9
Enter Diesel Price
3.5
GAS PUMP IS ON
Result is: 1



Please select any option
15
GasPump Class
TurnOff() method


Please select any option
16
The State is: -2
Press enter to continue


Please select any option
17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue


Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0

20
Quit
```

Test #4:

Activate(5.5, 6.9, 3.5), PayCredit(), Reject(), PayCredit(), Approved(), Cancel(), PayCredit(), Approved(), Regular(), StartPump(), PumpLiter(), StopPump(), Receipt(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
5.5
Enter Super Price
6.9
Enter Diesel Price
3.5
GAS PUMP IS ON
Result is: 1
Press enter to continue

Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue



Please select any option
3
GasPump Class
Reject() method

CREDIT CARD IS REJECTED.
Result is: 1
Press enter to continue



Please select any option

2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue
```

Please select any option

4
GasPump Class
Approved() method

CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue

Please select any option

6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
Result is : 1
Press enter to continue

Please select any option

2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue

Please select any option

4
GasPump Class
Approved() method

CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue

```
Please select any option

7
GasPump Class
Regular() method

REGULAR IS SELECTED.
Result is: 1
Press enter to continue

Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue

Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.5
CONTINUE PUMPING
Result is: 1
Press enter to continue



Please select any option

12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.5
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue



Please select any option

14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.5
Result is: 1
Press enter to continue
```

```
Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue

Please select any option
16
The State is: -2
Press enter to continue




Please select any option
17
Price: $ 5.5
Total: $5.5
Cash: $0.0
Press enter to continue


Please select any option
18
Value of w: 1
Press enter to continue



Please select any option
19
Number of Gallons pumped: 1
Press enter to continue



Please select any option
20
Quit
```

Test #5:

Activate(5.9, 8.9, 2.5), PayCredit(), Approved(), Cancel(), TurnOff()

```
Please select any option

1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price

5.9
Enter Super Price
8.9
Enter Diesel Price
2.5
GAS PUMP IS ON
Result is: 1
Press enter to continue




Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue




Please select any option
4
GasPump Class
Approved() method

CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue




Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
Result is : 1
Press enter to continue
```

```
Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue



Please select any option
16
The State is: -2
Press enter to continue



Please select any option

17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue



Please select any option

18
Value of w: 1
Press enter to continue



Please select any option
19
Number of Gallons pumped: 0
Press enter to continue


Please select any option
20
Quit
```

Test #6:

Activate(6.8, 7.8, 3.9), PayCash(2), Cancel(), PayCash(20), Regular(),
Cancel(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
6.8
Enter Super Price
7.8
Enter Diesel Price
3.9
GAS PUMP IS ON
Result is: 1
Press enter to continue




Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
2
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue




Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
$2.0 OF CASH IS RETURNED
Result is : 1
Press enter to continue




Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
20
```

```
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue




Please select any option
7
GasPump Class
Regular() method

REGULAR IS SELECTED.
Result is: 1
Press enter to continue

Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
$20.0 OF CASH IS RETURNED
Result is : 1
Press enter to continue

Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue

Please select any option
16
The State is: -2
Press enter to continue

Please select any option
17
Price: $ 6.8
Total: $0.0
Cash: $20.0
Press enter to continue

Please select any option
18
Value of w: 0
Press enter to continue

Please select any option
19
Number of Gallons pumped: 0
Press enter to continue
```

```
Please select any option
20
Quit
```

Test #7:

Activate (6.5, 7.4, 4.3), PayCash (1), Cancel(), PayCash(20), Super(),
StartPump(), StopPump(), Receipt(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
6.5
Enter Super Price
7.4
Enter Diesel Price
4.3
GAS PUMP IS ON
Result is: 1
Press enter to continue




Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
1
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue



Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
$1.0 OF CASH IS RETURNED
Result is : 1
Press enter to continue

Please select any option
5
GasPump Class
```

```
PayCash(float c) method

Enter Cash
20
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue

Please select any option
8
GasPump Class
Super() method

SUPER IS SELECTED.
Result is: 1
Press enter to continue

Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue



Please select any option
12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
$20.0 OF CASH IS RETURNED
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue



Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue

Please select any option

15
```

```
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue



Please select any option
16
The State is: -2
Press enter to continue




Please select any option
17
Price: $ 7.4
Total: $0.0
Cash: $20.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue

Please select any option
20
Quit
```

Test #8:

Activate(5.5, 6.9, 3.5), PayCredit(), Reject(), PayCash(30), Diesel(),
StartPump(), StopPump(), NoReceipt(), PayCredit(), Reject(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
5.5
Enter Super Price
6.9
Enter Diesel Price
3.5
GAS PUMP IS ON
Result is: 1
Press enter to continue




Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue




Please select any option
3
GasPump Class
Reject() method

CREDIT CARD IS REJECTED.
Result is: 1
Press enter to continue

Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
30
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue
```

```
Please select any option

9
GasPump Class
Diesel() method

DIESEL IS SELECTED.
Result is: 1
Press enter to continue




Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue




Please select any option
12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
$30.0 OF CASH IS RETURNED
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue




Please select any option
13
GasPump Class
NoReceipt() method

NO RECEIPT IS PRINTED
Result is: 1
Press enter to continue




Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue
```

```
Please select any option
3
GasPump Class
Reject() method

CREDIT CARD IS REJECTED.
Result is: 1
Press enter to continue

Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue

Please select any option
16
The State is: -2
Press enter to continue


Please select any option
17
Price: $ 3.5
Total: $0.0
Cash: $30.0
Press enter to continue


Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue




Please select any option
20
Quit
```

Test #9:

Activate(5.5, 6.8, 4.2), PayCredit(), Approved(),Cancel(), PayCash(2), Diesel(), StartPump(),PumpLiter(),Receipt(),PayCash(3),Cancel(),Turnoff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
5.5
Enter Super Price
6.8
Enter Diesel Price
4.2
GAS PUMP IS ON
Result is: 1
Press enter to continue




Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue




Please select any option
4
GasPump Class
Approved() method

CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue




Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
Result is : 1
Press enter to continue
```

```
Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
2
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1


Please select any option
9
GasPump Class
Diesel() method

DIESEL IS SELECTED.
Result is: 1
Press enter to continue


Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue


Please select any option
11
GasPump Class
PumpLiter() method

PUMP STOPPED. NOT SUFFICIENT FUNDS.
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
$2.0 OF CASH IS RETURNED
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue
```

```
Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue




Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
3
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue




Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
$3.0 OF CASH IS RETURNED
Result is : 1
Press enter to continue




Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue




Please select any option
16
The State is: -2
Press enter to continue
```

```
Please select any option
17
Price: $ 4.2
Total: $0.0
Cash: $3.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue



Please select any option
19
Number of Gallons pumped: 0
Press enter to continue



Please select any option
20
Quit
```

Test #10:

Activate(4.5, 5.8, 2.7), PayCredit(), Approved(), Super(), Cancel(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4.5
Enter Super Price
5.8
Enter Diesel Price
2.7
GAS PUMP IS ON
Result is: 1
Press enter to continue



Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue
```

```
Please select any option
4
GasPump Class
Approved() method

CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue


Please select any option
8
GasPump Class
Super() method

SUPER IS SELECTED.
Result is: 1
Press enter to continue



Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
Result is : 1




Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue

Please select any option
16
The State is: -2
Press enter to continue


Please select any option
17
Price: $ 5.8
Total: $0.0
Cash: $0.0
Press enter to continue
```

```
Please select any option
18
Value of w: 1
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue


Please select any option
20
Quit
```

Test #11:

Activate(5.5, 6.7, 2.3), PayCash(20),Super(), StartPump(), PumpLiter(),
PumpLiter(), StopPump(),Receipt(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
5.5
Enter Super Price
6.7
Enter Diesel Price
2.3
GAS PUMP IS ON
Result is: 1
Press enter to continue



Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
20
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue
```

```
Please select any option
8
GasPump Class
Super() method

SUPER IS SELECTED.
Result is: 1
Press enter to continue

Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue



Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $6.7
CONTINUE PUMPING
Result is: 1
Press enter to continue



Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 2
TOTAL CHARGE: $13.4
CONTINUE PUMPING
Result is: 1
Press enter to continue



Please select any option
12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 2
TOTAL CHARGE: $13.4
$6.6000004 OF CASH IS RETURNED
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue
```

```
Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 2
TOTAL CHARGE: $13.4
Result is: 1
Press enter to continue



Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue

Please select any option
16
The State is: -2
Press enter to continue



Please select any option
17
Price: $ 6.7
Total: $13.4
Cash: $20.0
Press enter to continue




Please select any option
18
Value of w: 0
Press enter to continue




Please select any option
19
Number of Gallons pumped: 2
Press enter to continue


Please select any option
20
Quit
```

Test #12:

Activate(4,5,6),PayCredit(),Reject(),PayCredit(),Approved(),Diesel(),StartPump(),StopPump(),NoReceipt(),PayCash(),Cancel(),Turnoff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue




Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue




Please select any option
3
GasPump Class
Reject() method

CREDIT CARD IS REJECTED.
Result is: 1
Press enter to continue




Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue
```

```
Please select any option
4
GasPump Class
Approved() method

CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue




Please select any option
9
GasPump Class
Diesel() method

DIESEL IS SELECTED.
Result is: 1
Press enter to continue



Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue



Please select any option
12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue
```

```
Please select any option
13
GasPump Class
NoReceipt() method

NO RECEIPT IS PRINTED
Result is: 1
Press enter to continue




Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
10
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue

Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
$10.0 OF CASH IS RETURNED
Result is : 1
Press enter to continue



Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue

Please select any option
16
The State is: -2
Press enter to continue


Please select any option
17
Price: $ 6.0
Total: $0.0
Cash: $10.0
Press enter to continue
```

```
Please select any option
18
Value of w: 0
Press enter to continue




Please select any option
19
Number of Gallons pumped: 0
Press enter to continue




Please select any option
20
Quit
```

Test #13:

Activate(4.5, 5.2, 3.5), PayCredit(), Approved(), Diesel(), Cancel(),
PayCash(10), Regular(), Cancel(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4.5
Enter Super Price
5.2
Enter Diesel Price
3.5
GAS PUMP IS ON
Result is: 1
Press enter to continue




Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue




Please select any option
4
GasPump Class
Approved() method
```

```
CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue


Please select any option
9
GasPump Class
Diesel() method

DIESEL IS SELECTED.
Result is: 1
Press enter to continue



Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
Result is : 1
Press enter to continue



Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
10
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue



Please select any option
7
GasPump Class
Regular() method

REGULAR IS SELECTED.
Result is: 1
Press enter to continue
```

```
Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
$10.0 OF CASH IS RETURNED
Result is : 1
Press enter to continue



Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue



Please select any option
16
The State is: -2
Press enter to continue



Please select any option
17
Price: $ 4.5
Total: $0.0
Cash: $10.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue



Please select any option
19
Number of Gallons pumped: 0
Press enter to continue



Please select any option
20
Quit
```

Test #14:

Activate(3,4,5),PayCash(20),Super(),StartPump(),PumpLiter(),PumpLiter(),StopPump(),Receipt(),Turnoff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
3
Enter Super Price
4
Enter Diesel Price
5
GAS PUMP IS ON
Result is: 1
Press enter to continue




Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
20
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue




Please select any option
8
GasPump Class
Super() method

SUPER IS SELECTED.
Result is: 1
Press enter to continue

Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue
```

```
Please select any option

11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $4.0
CONTINUE PUMPING
Result is: 1
Press enter to continue



Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 2
TOTAL CHARGE: $8.0
CONTINUE PUMPING
Result is: 1
Press enter to continue



Please select any option
12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 2
TOTAL CHARGE: $8.0
$12.0 OF CASH IS RETURNED
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue




Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 2
TOTAL CHARGE: $8.0
Result is: 1
Press enter to continue
```

```
Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue



Please select any option
16
The State is: -2
Press enter to continue



Please select any option
17
Price: $ 4.0
Total: $8.0
Cash: $20.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue
Please select any option
19
Number of Gallons pumped: 2
Press enter to continue



Please select any option
20
Quit
```

Test #15:

Activate(3,4,5),PayCash(7),Regular(),StartPump(),PumpLiter(),PumpLiter(),PumpLiter(),Receipt(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
3
Enter Super Price
4
Enter Diesel Price
5
GAS PUMP IS ON
Result is: 1
Press enter to continue



Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
7
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue

Please select any option
7
GasPump Class
Regular() method

REGULAR IS SELECTED.
Result is: 1
Press enter to continue

Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue
```

```
Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $3.0
CONTINUE PUMPING
Result is: 1
Press enter to continue




Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 2
TOTAL CHARGE: $6.0
CONTINUE PUMPING
Result is: 1
Press enter to continue




Please select any option
11
GasPump Class
PumpLiter() method

PUMP STOPPED. NOT SUFFICIENT FUNDS.
# OF LITERS PUMPED: 2
TOTAL CHARGE: $6.0
$1.0 OF CASH IS RETURNED
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue




Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 2
TOTAL CHARGE: $6.0
Result is: 1
Press enter to continue




Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue
```

```
Please select any option
16
The State is: -2
Press enter to continue



Please select any option

17
Price: $ 3.0
Total: $6.0
Cash: $7.0
Press enter to continue


Please select any option
18
Value of w: 0
Press enter to continue



Please select any option
19
Number of Gallons pumped: 2
Press enter to continue



Please select any option
20
Quit
```

Test #16:

Activate(3,4,5),PayCredit(),Reject(),PayCash(20),Diesel(),Cancel(),PayCredit(),
Reject(),Turnoff()

```
Please select any option

1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
3
Enter Super Price
4
Enter Diesel Price
5
GAS PUMP IS ON
Result is: 1
Press enter to continue
```

```
Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue




Please select any option
3
GasPump Class
Reject() method

CREDIT CARD IS REJECTED.
Result is: 1
Press enter to continue


Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
20
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue


Please select any option
9
GasPump Class
Diesel() method

DIESEL IS SELECTED.
Result is: 1
Press enter to continue



Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
$20.0 OF CASH IS RETURNED
Result is : 1
Press enter to continue
```

```
Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue



Please select any option
3
GasPump Class
Reject() method

CREDIT CARD IS REJECTED.
Result is: 1
Press enter to continue



Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue



Please select any option
16
The State is: -2
Press enter to continue



Please select any option
17
Price: $ 5.0
Total: $0.0
Cash: $20.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue

Please select any option
19
Number of Gallons pumped: 0
Press enter to continue



Please select any option
20
Quit
```

Test Cases	Result
Test Case #1	PASS
Test Case #2	PASS
Test Case #3	PASS
Test Case #4	PASS
Test Case #5	PASS
Test Case #6	PASS
Test Case #7	PASS

GHOST TRANSITIONS TEST CASE EXECUTION

Test # 17(S0):

Activate(4.5,5.7,3.2), Activate(4,8.8,2.5), PayCash(-20), Reject(), Cancel(), Approved(), Regular(), Diesel(), Super(), StartPump(), PumpLiter(), StopPump(), Receipt (), NoReceipt (), PayCash (20), Cancel (), Turnoff().

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4.5
Enter Super Price
5.7
Enter Diesel Price
3.2
GAS PUMP IS ON
Result is: 1
Press enter to continue


Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
8.8
Enter Diesel Price
2.5
Result is: 0
Press enter to continue


Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
-20
Result is: 0
Press enter to continue
```

```
Please select any option
3
GasPump Class
Reject() method

Result is: 0
Press enter to continue




Please select any option
6
GasPump Class
Cancel() method

Result is : 0
Press enter to continue




Please select any option
4
GasPump Class
Approved() method

Result is: 0
Press enter to continue




Please select any option
7
GasPump Class
Regular() method

Result is: 0
Press enter to continue




Please select any option
9
GasPump Class
Diesel() method

Result is: 0
Press enter to continue


Please select any option
8
GasPump Class
Super() method

Result is: 0
Press enter to continue
```

```
Please select any option
10
GasPump Class
StartPump() method

Result is: 0
Press enter to continue




Please select any option
11
GasPump Class
PumpLiter() method

Result is: 0
Press enter to continue




Please select any option
12
GasPump Class
StopPump() method

Result is: 0
Press enter to continue




Please select any option
14
GasPump Class
Receipt() method

Result is: 0
Press enter to continue


Please select any option
13
GasPump Class
NoReceipt() method

Result is: 0
Press enter to continue




Please select any option
5
GasPump Class
PayCash(float c) method
```

```
Enter Cash
20
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue

Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
$20.0 OF CASH IS RETURNED
Result is : 1
Press enter to continue



Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue



Please select any option
16
The State is: -2
Press enter to continue



Please select any option
17
Price: $ 0.0
Total: $0.0
Cash: $20.0
Press enter to continue


Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue

Please select any option
20
Quit
```

Test #18(S1):

Activate(4.5,5.7,3.2),PayCredit(),Approved(),Super(),StartPump(),Activate
(4,5,9),PayCredit(),Cancel(),Reject(),PayCash(50),Approved(),Regular(),Diesel()
Super(),PumpLiter(),StopPump(),Receipt(),Turnoff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4.5
Enter Super Price
5.7
Enter Diesel Price
3.2
GAS PUMP IS ON
Result is: 1
Press enter to continue




Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue




Please select any option
4
GasPump Class
Approved() method

CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue




Please select any option
8
GasPump Class
Super() method

SUPER IS SELECTED.
Result is: 1
Press enter to continue
```

```
Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue



Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
9
Result is: 0
Press enter to continue



Please select any option
2
GasPump Class
PayCredit() method

Result is: 0
Press enter to continue



Please select any option
6
GasPump Class
Cancel() method

Result is : 0
Press enter to continue

Please select any option
3
GasPump Class
Reject() method

Result is: 0
Press enter to continue
```

```
Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
50
Result is: 0
Press enter to continue




Please select any option
4
GasPump Class
Approved() method

Result is: 0
Press enter to continue




Please select any option
7
GasPump Class
Regular() method

Result is: 0
Press enter to continue




Please select any option
9
GasPump Class
Diesel() method

Result is: 0
Press enter to continue

Please select any option
8
GasPump Class
Super() method

Result is: 0
Press enter to continue




Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.7
CONTINUE PUMPING
Result is: 1
Press enter to continue
```

```
Please select any option
12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.7
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue



Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.7
Result is: 1
Press enter to continue



Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue

Please select any option
16
The State is: -2
Press enter to continue



Please select any option
17
Price: $ 5.7
Total: $5.7
Cash: $0.0



Please select any option
18
Value of w: 0
Press enter to continue
```

```
Please select any option
19
Number of Gallons pumped: 1
Press enter to continue



Please select any option
20
Quit
```

Test #19(S2):

Activate(4.5,5.7,3.2),PayCredit(),Activate(5,6,7),PayCash(10),PayCredit(),Cancel(),Super(),Regular(),Diesel(),StartPump(),PumpLiter(),StopPump(), Receipt(),NoReceipt(), Turnoff(),Reject(),Turnoff()

```
Please select any option

1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4.5
Enter Super Price
5.7
Enter Diesel Price
3.2
GAS PUMP IS ON
Result is: 1
Press enter to continue



Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue
```

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
5
Enter Super Price
6
Enter Diesel Price
7
Result is: 0
Press enter to continue


Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
10
Result is: 0
Press enter to continue



Please select any option
2
GasPump Class
PayCredit() method

Result is: 0
Press enter to continue



Please select any option
6
GasPump Class
Cancel() method

Result is : 0
Press enter to continue



Please select any option
8
GasPump Class
Super() method

Result is: 0
Press enter to continue



Please select any option
7
GasPump Class
Regular() method
```

```
Result is: 0
Press enter to continue




Please select any option
9
GasPump Class
Diesel() method

Result is: 0
Press enter to continue




Please select any option
10
GasPump Class
StartPump() method

Result is: 0
Press enter to continue




Please select any option
11
GasPump Class
PumpLiter() method

Result is: 0
Press enter to continue




Please select any option
12
GasPump Class
StopPump() method

Result is: 0
Press enter to continue




Please select any option
14
GasPump Class
Receipt() method

Result is: 0
Press enter to continue




Please select any option
13
GasPump Class
NoReceipt() method

Result is: 0
Press enter to continue
```

P R A T I S H T H A   V E R M A

```
Please select any option
15
GasPump Class
TurnOff() method

Result is: 0
Press enter to continue




Please select any option
3
GasPump Class
Reject() method

CREDIT CARD IS REJECTED.
Result is: 1
Press enter to continue




Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue




Please select any option
16
The State is: -2
Press enter to continue




Please select any option
17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue

Please select any option
18
Value of w: 0
Press enter to continue




Please select any option
19
Number of Gallons pumped: 0
Press enter to continue




Please select any option
20
Quit
```

Test #20(S3):

Activate(3,5,7),PayCash(15),Activate(3,5,8),PayCredit(),PayCash(10),Reject(), Approved(),StartPump(),PumpLiter(),StopPump(),NoReceipt(),Receipt(),Turnoff(),Cancel(),Turnoff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
3
Enter Super Price
5
Enter Diesel Price
7
GAS PUMP IS ON
Result is: 1
Press enter to continue


Please select any option

5
GasPump Class
PayCash(float c) method

Enter Cash
15
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue



Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
3
Enter Super Price
5
Enter Diesel Price
8
Result is: 0
Press enter to continue

Please select any option
2
GasPump Class
PayCredit() method

Result is: 0
Press enter to continue
```

```
Please select any option

5
GasPump Class
PayCash(float c) method

Enter Cash

10
Result is: 0
Press enter to continue




Please select any option
3
GasPump Class
Reject() method

Result is: 0
Press enter to continue




Please select any option
4
GasPump Class
Approved() method

Result is: 0
Press enter to continue




Please select any option
10
GasPump Class
StartPump() method

Result is: 0
Press enter to continue




Please select any option

11
GasPump Class
PumpLiter() method

Result is: 0
Press enter to continue

Please select any option
12
GasPump Class
StopPump() method

Result is: 0
Press enter to continue
```

```
Please select any option
13
GasPump Class
NoReceipt() method

Result is: 0
Press enter to continue




Please select any option
14
GasPump Class
Receipt() method

Result is: 0
Press enter to continue




Please select any option
15
GasPump Class
TurnOff() method

Result is: 0
Press enter to continue




Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
$15.0 OF CASH IS RETURNED
Result is : 1
Press enter to continue




Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue




Please select any option
16
The State is: -2
Press enter to continue
```

```
Please select any option
17
Price: $ 0.0
Total: $0.0
Cash: $15.0
Press enter to continue


Please select any option
18
Value of w: 0
Press enter to continue




Please select any option
19
Number of Gallons pumped: 0
Press enter to continue




Please select any option
20
Quit
```

Test #21(S4):

Activate(4,5,6),PayCredit(),Approved(),Regular(),Activate(2,3,4),Approved(),PayCredit(),Reject(),PayCash(5),Regular(),Super(),Diesel(),PumpLiter(),StopPump(),NoReceipt(),Receipt(),Turnoff(),StartPump(), Receipt(),Turnoff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1



Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue



Please select any option
4
GasPump Class
Approved() method

CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue



Please select any option

7
GasPump Class
Regular() method

REGULAR IS SELECTED.
Result is: 1
Press enter to continue
```

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
2
Enter Super Price
3
Enter Diesel Price
4
Result is: 0
Press enter to continue


Please select any option
4
GasPump Class
Approved() method

Result is: 0
Press enter to continue


Please select any option
2
GasPump Class
PayCredit() method

Result is: 0
Press enter to continue


Please select any option
3
GasPump Class
Reject() method

Result is: 0
Press enter to continue


Please select any option

5
GasPump Class
PayCash(float c) method

Enter Cash
5
Result is: 0
Press enter to continue
```

```
Please select any option
7
GasPump Class
Regular() method

Result is: 0
Press enter to continue




Please select any option
8
GasPump Class
Super() method

Result is: 0
Press enter to continue




Please select any option

9
GasPump Class
Diesel() method

Result is: 0
Press enter to continue




Please select any option
11
GasPump Class
PumpLiter() method

Result is: 0
Press enter to continue




Please select any option
12
GasPump Class
StopPump() method

Result is: 0
Press enter to continue

Please select any option
13
GasPump Class
NoReceipt() method

Result is: 0
Press enter to continue
```

```
Please select any option
14
GasPump Class
Receipt() method

Result is: 0
Press enter to continue



Please select any option
15
GasPump Class
TurnOff() method

Result is: 0
Press enter to continue



Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue



Please select any option
14
GasPump Class
Receipt() method

Result is: 0
Press enter to continue



Please select any option
15
GasPump Class
TurnOff() method

Result is: 0
Press enter to continue



Please select any option
 16
The State is: 1
Press enter to continue


Please select any option
17
Price: $ 4.0
Total: $0.0
```

```
Cash: $0.0
Press enter to continue


Please select any option
18
Value of w: 1
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue


Please select any option
20
Quit
```

Test # 22(S5):

Activate(4,5,6),PayCash(30),Regular(),StartPump(),Activate(1,3,2),PayCredit(),
Cancel(),Reject(),Approved(),PayCash(2),Regular(),Super(),Diesel(),StartPump(
),NoReceipt(),Receipt(),Turnoff(),PumpLiter(),StopPump(), Receipt(),Turnoff()


```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue
```

```
Please select any option

5
GasPump Class
PayCash(float c) method

Enter Cash
30
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue


Please select any option
7
GasPump Class
Regular() method

REGULAR IS SELECTED.
Result is: 1
Press enter to continue



Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue



Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
1
Enter Super Price
3
Enter Diesel Price
2
Result is: 0
Press enter to continue
```

```
Please select any option
2
GasPump Class
PayCredit() method

Result is: 0
Press enter to continue




Please select any option
6
GasPump Class
Cancel() method

Result is : 0
Press enter to continue




Please select any option
3
GasPump Class
Reject() method

Result is: 0
Press enter to continue




Please select any option
4
GasPump Class
Approved() method

Result is: 0
Press enter to continue


Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
2
Result is: 0
Press enter to continue




Please select any option
7
GasPump Class
Regular() method

Result is: 0
Press enter to continue
```

```
Please select any option
8
GasPump Class
Super() method

Result is: 0
Press enter to continue




Please select any option
9
GasPump Class
Diesel() method

Result is: 0
Press enter to continue




Please select any option
10
GasPump Class
StartPump() method

Result is: 0
Press enter to continue




Please select any option
13
GasPump Class
NoReceipt() method

Result is: 0
Press enter to continue




Please select any option
14
GasPump Class
Receipt() method

Result is: 0
Press enter to continue




Please select any option
15
GasPump Class
TurnOff() method

Result is: 0
Press enter to continue
```

```
Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $4.0
CONTINUE PUMPING
Result is: 1
Press enter to continue



Please select any option
12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 1
TOTAL CHARGE: $4.0
$26.0 OF CASH IS RETURNED
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue





Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 1
TOTAL CHARGE: $4.0
Result is: 1
Press enter to continue



Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue



Please select any option
16
The State is: -2
Press enter to continue
```

```
Please select any option
17
Price: $ 4.0
Total: $4.0
Cash: $30.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue



Please select any option
19
Number of Gallons pumped: 1
Press enter to continue



Please select any option
20
Quit
```

Test # 23(S6):

Activate(4,5,6),PayCredit(),Approved(),Regular(),StartPump(),StopPump(),Activate(2,3,5),PayCredit(),Reject(),Approved(),Cancel(),PayCash(6),Regular(),Super(),Diesel(),StartPump(),PumpLiter(),StopPump(),Turnoff(),Receipt(),Turnoff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue


Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue


Please select any option
4
GasPump Class
Approved() method

CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue
```

```
Please select any option
7
GasPump Class
Regular() method

REGULAR IS SELECTED.
Result is: 1
Press enter to continue



Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue



Please select any option
12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue




Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
2
Enter Super Price
3
Enter Diesel Price
5
Result is: 0
Press enter to continue



Please select any option
2
GasPump Class
PayCredit() method

Result is: 0
```

```
Press enter to continue



Please select any option
3
GasPump Class
Reject() method

Result is: 0
Press enter to continue



Please select any option
4
GasPump Class
Approved() method

Result is: 0
Press enter to continue



Please select any option
6
GasPump Class
Cancel() method

Result is : 0
Press enter to continue



Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
6
Result is: 0
Press enter to continue



Please select any option
7
GasPump Class
Regular() method

Result is: 0
Press enter to continue



Please select any option
8
GasPump Class
Super() method

Result is: 0
Press enter to continue
```

```
Please select any option
9
GasPump Class
Diesel() method

Result is: 0
Press enter to continue




Please select any option
10
GasPump Class
StartPump() method

Result is: 0
Press enter to continue




Please select any option
11
GasPump Class
PumpLiter() method

Result is: 0
Press enter to continue





Please select any option
12
GasPump Class
StopPump() method

Result is: 0
Press enter to continue




Please select any option
15
GasPump Class
TurnOff() method

Result is: 0
Press enter to continue




Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
```

```
Press enter to continue



Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue



Please select any option
16
The State is: -2
Press enter to continue


Please select any option
17
Price: $ 4.0
Total: $0.0
Cash: $0.0
Press enter to continue



Please select any option
18
Value of w: 1
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue



Please select any option
20
Quit
```

Test #24:

Activate (4, 5, -6)

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
-6
Result is: 0

Please select any option
16
The State is: -1
Press enter to continue


Please select any option

17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue



Please select any option
20
Quit
```

Test #25:

Activate (4, -5, 6)

```
Enter Regular Price
4
Enter Super Price
-5
Enter Diesel Price
6
Result is: 0

Please select any option
16
The State is: -1
Press enter to continue


Please select any option

17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue



Please select any option
20
Quit
```

Test #26:

Activate (4, -5, -6)

```
Enter Regular Price
4
Enter Super Price
-5
Enter Diesel Price
-6
Result is: 0

Please select any option
16
The State is: -1
Press enter to continue


Please select any option

17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue



Please select any option
20
Quit
```

Test #27:

Activate (-4, 5, 6)

```
Enter Regular Price
-4
Enter Super Price
5
Enter Diesel Price
6
Result is: 0

Please select any option
16
The State is: -1
Press enter to continue


Please select any option

17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue



Please select any option
20
Quit
```

Test #28:

Activate (-4, 5, -6)

```
Enter Regular Price
-4
Enter Super Price
5
Enter Diesel Price
-6
Result is: 0

Please select any option
16
The State is: -1
Press enter to continue


Please select any option

17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue


Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue


Please select any option
20
Quit
```

Test #29:

Activate (-4, -5, 6)

```
Enter Regular Price
-4
Enter Super Price
-5
Enter Diesel Price
6
Result is: 0

Please select any option
16
The State is: -1
Press enter to continue


Please select any option

17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue



Please select any option
20
Quit
```

Test #30:

Activate (-4, -5, -6)

```
Enter Regular Price
-4
Enter Super Price
-5
Enter Diesel Price
-6
Result is: 0

Please select any option
16
The State is: -1
Press enter to continue


Please select any option

17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue


Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue


Please select any option
20
Quit
```

Test #31:

Activate(4,5,6),Activate(4,5,-6)

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue


Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
-6
Result is: 0
Press enter to continue


Please select any option
16
The State is: 0
Press enter to continue


Please select any option
17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue


Please select any option
18
Value of w: 0
Press enter to continue
```

```
Please select any option
19
Number of Gallons pumped: 0
Press enter to continue




Please select any option
20
Quit
```

Test #32:

Activate(4,5,6),Activate(4,-5,6)

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue




Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
-5
Enter Diesel Price
6
Result is: 0
Press enter to continue




Please select any option
16
The State is: 0
Press enter to continue
```

```
Please select any option

17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue


Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue


Please select any option
20
Quit
```

Test #33:

Activate(4,5,6), Activate(4,-5,-6)

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue
```

```
Please select any option

1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
-5
Enter Diesel Price
-6
Result is: 0
Press enter to continue




Please select any option
16
The State is: 0
Press enter to continue


Please select any option
17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue


Please select any option
18
Value of w: 0
Press enter to continue



Please select any option
19
Number of Gallons pumped: 0
Press enter to continue


Please select any option
20
Quit
```

Test #34:

Activate(4,5,6), Activate(-4,5,6)

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue



Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
-4
Enter Super Price
5
Enter Diesel Price
6
Result is: 0
Press enter to continue



Please select any option


16
The State is: 0
Press enter to continue


Please select any option
17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue
```

```
Please select any option
19
Number of Gallons pumped: 0
Press enter to continue



Please select any option
20
Quit
```

Test #35:

Activate(4,5,6), Activate(-4,5,-6)

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue



Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
-4
Enter Super Price
5
Enter Diesel Price
-6
Result is: 0
Press enter to continue



Please select any option
16
The State is: 0
Press enter to continue
```

```
Please select any option
17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue




Please select any option
18
Value of w: 0
Press enter to continue
Please select any option
19
Number of Gallons pumped: 0
Press enter to continue



Please select any option
20
Quit
```

Test #36:

Activate(4,5,6), Activate(-4,-5,6)

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue

Please select any option 1

GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
-4
Enter Super Price
-5
Enter Diesel Price
6
Result is: 0
Press enter to continue
```

```
Please select any option

16
The State is: 0
Press enter to continue
Please select any option
17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue



Please select any option
19
Number of Gallons pumped: 0
Press enter to continue



Please select any option
20
Quit
```

Test #37:

Activate(4,5,6), Activate(-4,-5,-6)

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
```

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
-4
Enter Super Price
-5
Enter Diesel Price
-6
Result is: 0
Press enter to continue


Please select any option
16
The State is: 0
Press enter to continue


Please select any option
17
Price: $ 0.0
Total: $0.0
Cash: $0.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 0
Press enter to continue



Please select any option
20
Quit
```

TEST CASES	RESULT
Test Case #17	PASS
Test Case #18	PASS
Test Case #19	PASS
Test Case #20	PASS
Test Case #21	PASS
Test Case #22	PASS
Test Case #23	PASS
Test Case #24	PASS
Test Case #25	PASS
Test Case #26	PASS
Test Case #27	PASS
Test Case #28	PASS
Test Case #29	PASS
Test Case #30	PASS
Test Case #31	PASS
Test Case #32	PASS
Test Case #33	PASS
Test Case #34	PASS
Test Case #35	PASS
Test Case #36	PASS
Test Case #37	PASS

MULTIPLE CONDITION TESTING TEST CASE EXECUTION

Test #38:

Activate (4, 5, 6), PayCash (1), Cancel(), Turnoff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue




Please select any option


5
GasPump Class
PayCash(float c) method

Enter Cash
1
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue



Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
$1.0 OF CASH IS RETURNED
Result is : 1
Press enter to continue
```

```
Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue




Please select any option
16
The State is: -2
Press enter to continue




Please select any option
17
Price: $ 0.0
Total: $0.0
Cash: $1.0
Press enter to continue

Please select any option
18
Value of w: 0
Press enter to continue




Please select any option
19
Number of Gallons pumped: 0
Press enter to continue




Please select any option
20
Quit
```

Test #39:

Activate(4,5,6) ,PayCash(-5), PayCash(6), PayCredit(), Regular(), Cancel(),
TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue



Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
-5
Result is: 0



Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
6
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue



Please select any option

2
GasPump Class
PayCredit() method

Result is: 0
Press enter to continue

Please select any option
7
```

```
GasPump Class
Regular() method

REGULAR IS SELECTED.
Result is: 1
Press enter to continue



Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
$6.0 OF CASH IS RETURNED
Result is : 1
Press enter to continue



Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue



Please select any option
16
The State is: -2
Press enter to continue



Please select any option
17
Price: $ 4.0
Total: $0.0
Cash: $6.0
Press enter to continue

Please select any option
18
Value of w: 0
Press enter to continue



Please select any option
19
Number of Gallons pumped: 0
Press enter to continue

Please select any option
20
Quit
```

Test #40:

Activate(4,5,6), PayCash(-4), PayCash(6), PayCredit(), Super(), StartPump(), PumpLiter(), StopPump(), NoReceipt(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue




Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
-4
Result is: 0




Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
6
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1




Please select any option
2
GasPump Class
PayCredit() method

Result is: 0
Press enter to continue
```

```
Please select any option
8
GasPump Class
Super() method

SUPER IS SELECTED.
Result is: 1
Press enter to continue




Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue




Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.0
CONTINUE PUMPING
Result is: 1
Press enter to continue




Please select any option
12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.0
$1.0 OF CASH IS RETURNED
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue




Please select any option
13
GasPump Class
NoReceipt() method

NO RECEIPT IS PRINTED
Result is: 1
Press enter to continue
```

```
Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue




Please select any option
16
The State is: -2
Press enter to continue




Please select any option
17
Price: $ 5.0
Total: $5.0
Cash: $6.0
Press enter to continue




Please select any option
18
Value of w: 0
Press enter to continue




Please select any option
19
Number of Gallons pumped: 1
Press enter to continue




Please select any option
20
Quit
```

Test #41:

Activate(4,5,6), Receipt(), NoReceipt(), PayCash(9), Super() ,StartPump(), PumpLiter(), PumpLiter(), Receipt(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue

Please select any option

14
GasPump Class
Receipt() method

Result is: 0
Press enter to continue




Please select any option

13
GasPump Class
NoReceipt() method

Result is: 0
Press enter to continue




Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash

9
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue
```

```
Please select any option

8
GasPump Class
Super() method

SUPER IS SELECTED.
Result is: 1
Press enter to continue




Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue




Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.0
CONTINUE PUMPING
Result is: 1
Press enter to continue




Please select any option
11
GasPump Class
PumpLiter() method

PUMP STOPPED. NOT SUFFICIENT FUNDS.
# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.0
$4.0 OF CASH IS RETURNED
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue




Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.0
Result is: 1
Press enter to continue
```

```
Please select any option

15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue



Please select any option
16
The State is: -2
Press enter to continue



Please select any option
17
Price: $ 5.0
Total: $5.0
Cash: $9.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue



Please select any option
19
Number of Gallons pumped: 1
Press enter to continue


Please select any option
20
Quit
```

Test #42:

Activate(2,3,4), PayCash(10), Diesel(), StartPump(), PumpLiter(), StopPump(), Receipt(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
2
Enter Super Price
3
Enter Diesel Price
4
GAS PUMP IS ON
Result is: 1
Press enter to continue


Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
10
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue

Please select any option
9
GasPump Class
Diesel() method

DIESEL IS SELECTED.
Result is: 1
Press enter to continue




Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue
```

```
Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $4.0
CONTINUE PUMPING
Result is: 1
Press enter to continue


Please select any option
12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 1
TOTAL CHARGE: $4.0
$6.0 OF CASH IS RETURNED
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue


Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 1
TOTAL CHARGE: $4.0
Result is: 1
Press enter to continue


Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue


Please select any option
16
The State is: -2
Press enter to continue



Please select any option
17
Price: $ 4.0
Total: $4.0
Cash: $10.0
Press enter to continue
```

```
Please select any option
18
Value of w: 0
Press enter to continue



Please select any option
19
Number of Gallons pumped: 1
Press enter to continue

Please select any option
20
Quit
```

Test#43:

Activate(2,3,4), PayCash(3), Super(), StartPump(),PumpLiter(), StopPump()
Receipt(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
2
Enter Super Price
3
Enter Diesel Price
4
GAS PUMP IS ON
Result is: 1



Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
3
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue
```

```
Please select any option
8
GasPump Class
Super() method

SUPER IS SELECTED.
Result is: 1
Press enter to continue

Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue



Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $3.0
CONTINUE PUMPING
Result is: 1
Press enter to continue



Please select any option
12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 1
TOTAL CHARGE: $3.0
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue



Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 1
TOTAL CHARGE: $3.0
Result is: 1
Press enter to continue
```

```
Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue




Please select any option
16
The State is: -2
Press enter to continue



Please select any option
17
Price: $ 3.0
Total: $3.0
Cash: $3.0
Press enter to continue



Please select any option
18
Value of w: 0
Press enter to continue


Please select any option
19
Number of Gallons pumped: 1
Press enter to continue


Please select any option
20
Quit
```

Test #44:

Activate(4,5,6), PayCredit(), PayCash(-5),PayCash(6), Approved(),Super()
PumpLiter(),StartPump(), PumpLiter(), StartPump(),StopPump(), TurnOff()
Receipt(), TurnOff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue



Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue



Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
-5
Result is: 0
Press enter to continue

Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
6
Result is: 0
Press enter to continue



Please select any option
4
GasPump Class
Approved() method
```

```
CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue

Please select any option
8
GasPump Class
Super() method

SUPER IS SELECTED.
Result is: 1
Press enter to continue

Please select any option
11
GasPump Class
PumpLiter() method

Result is: 0
Press enter to continue

Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue

Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.0
CONTINUE PUMPING
Result is: 1
Press enter to continue

Please select any option
10
GasPump Class
StartPump() method

Result is: 0
Press enter to continue

Please select any option
12
GasPump Class
StopPump() method
```

```
PUMP STOPPED.
# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.0
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue


Please select any option
15
GasPump Class
TurnOff() method

Result is: 0
Press enter to continue

Please select any option
14
GasPump Class
Receipt() method

RECEIPT IS PRINTED:
# OF LITERS PUMPED: 1
TOTAL CHARGE: $5.0
Result is: 1
Press enter to continue


Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue

Please select any option
16
The State is: -2
Press enter to continue

Please select any option
17
Price: $ 5.0
Total: $5.0
Cash: $0.0
Press enter to continue

Please select any option
18
Value of w: 1
Press enter to continue



Please select any option
19
Number of Gallons pumped: 1
Press enter to continue
```

```
Please select any option
20
Quit
```

Test #45:

Activate(4,5,6),PayCash(3),Cancel(),PayCredit(),Approved(),Regular(),StartPump(),PumpLiter(), StopPump(),NoReceipt(),Turnoff()

```
Please select any option
1
GasPump Class
Activate(float a,float b,float d) method

Enter Regular Price
4
Enter Super Price
5
Enter Diesel Price
6
GAS PUMP IS ON
Result is: 1
Press enter to continue




Please select any option
5
GasPump Class
PayCash(float c) method

Enter Cash
3
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue




Please select any option
6
GasPump Class
Cancel() method

TRANSACTION IS CANCELLED.
$3.0 OF CASH IS RETURNED
Result is : 1
Press enter to continue
```

```
Please select any option
2
GasPump Class
PayCredit() method

CHECKING CREDIT CARD.
Result is: 1
Press enter to continue




Please select any option
4
GasPump Class
Approved() method

CREDIT CARD APPROVED.
SELECT TYPE OF GASOLINE:
a. REGULAR
b. SUPER
c. DIESEL
Result is: 1
Press enter to continue




Please select any option
7
GasPump Class
Regular() method

REGULAR IS SELECTED.
Result is: 1
Press enter to continue




Please select any option
10
GasPump Class
StartPump() method

PUMP IS READY TO DISPOSE
# OF LITERS PUMPED: 0
TOTAL CHARGE: $0.0
Result is: 1
Press enter to continue

Please select any option
11
GasPump Class
PumpLiter() method

# OF LITERS PUMPED: 1
TOTAL CHARGE: $4.0
CONTINUE PUMPING
Result is: 1
Press enter to continue
```

```
Please select any option
12
GasPump Class
StopPump() method

PUMP STOPPED.
# OF LITERS PUMPED: 1
TOTAL CHARGE: $4.0
DO YOU WANT A RECEIPT?
Result is: 1
Press enter to continue


Please select any option
13
GasPump Class
NoReceipt() method

NO RECEIPT IS PRINTED
Result is: 1
Press enter to continue


Please select any option
15
GasPump Class
TurnOff() method

GAS PUMP IS TURNED OFF
Result is: 1
Press enter to continue


Please select any option
16
The State is: -2
Press enter to continue

Please select any option
17
Price: $ 4.0
Total: $4.0
Cash: $3.0
Press enter to continue

Please select any option
18
Value of w: 1
Press enter to continue


Please select any option
19
Number of Gallons pumped: 1
Press enter to continue

Please select any option
20
Quit
```

TEST CASES	RESULT
Test Case #38	PASS
Test Case #39	PASS
Test Case #40	PASS
Test Case #41	PASS
Test Case #42	PASS
Test Case #43	PASS
Test Case #44	PASS
Test Case #45	PASS

TS.txt File

Test#1:Activate(5.5,6.9,3.5),PayCredit(),Approved(),Super(),StartPump(),PumpLiter(),StopPump(),Receipt(),TurnOff()

Test#2:Activate(5.5,6.9,3.5),PayCredit(),Approved(),Regular(),StartPump(),PumpLiter(),PumpLiter(),StopPump(),Receipt(),PayCredit(),Reject(),TurnOff()

Test#3:Activate(5.5,6.9,3.5),TurnOff()

Test#4:Activate(5.5,6.9,3.5),PayCredit(),Reject(),PayCredit(),Approved(),Cancel(),PayCredit(),Approved(),Regular(),StartPump(),PumpLiter(),StopPump(),Receipt(),TurnOff()

Test#5:Activate(5.9,8.9,2.5),PayCredit(),Approved(),Cancel(),TurnOff()

Test#6:Activate(6.8,7.8,3.9),PayCash(2),Cancel(),PayCash(20),Regular(),Cancel(),TurnOff()

Test#7:Activate(6.5,7.4,4.3),PayCash(1),Cancel(),PayCash(20),Super(),StartPump(),StopPump(),Receipt(),TurnOff()

Test#8:Activate(5.5,6.9,3.5),PayCredit(),Reject(),PayCash(30),Diesel(),StartPump(),StopPump(),NoReceipt(),PayCredit(),Reject(),TurnOff()

Test#9:Activate(5.5,6.8,4.2),PayCredit(),Approved(),Cancel(),PayCash(2),Diesel(),StartPump(),PumpLiter(),Receipt(),PayCash(3),Cancel(),Turnoff()

Test#10:Activate(4.5,5.8,2.7),PayCredit(),Approved(),Super(),Cancel(),TurnOff()

Test#11:Activate(5.5,6.7,2.3),PayCash(20),Super(),StartPump(),PumpLiter(),PumpLiter(),StopPump(),Receipt(),TurnOff()

Test#12:Activate(4,5,6),PayCredit(),Reject(),PayCredit(),Approved(),Diesel(),StartPump(),StopPump(),NoReceipt(),PayCash(),Cancel(),Turnoff()

Test#13:Activate(4.5,5.2,3.5),PayCredit(),Approved(),Diesel(),Cancel(),PayCash(10),Regular(),Cancel(),TurnOff()

Test#14:Activate(3,4,5),PayCash(20),Super(),StartPump(),PumpLiter(),PumpLiter(),StopPump(),StopPump(),Receipt(),Turnoff()

Test#15:Activate(3,4,5),PayCash(7),Regular(),StartPump(),PumpLiter(),PumpLiter(),PumpLiter(),Receipt(),TurnOff()

Test#16:Activate(3,4,5),PayCredit(),Reject(),PayCash(20),Diesel(),Cancel(),PayCredit(),Reject(),Turnoff()

Test#17:Activate(4.5,5.7,3.2),Activate(4,8.8,2.5),PayCash(-20),Reject(),Cancel(),Approved(),Regular(),Diesel(),Super(),StartPump(),PumpLiter(),StopPump(),Receipt(),NoReceipt(),PayCash(20),Cancel(),Turnoff()

Test#18:Activate(4.5,5.7,3.2),PayCredit(),Approved(),Super(),StartPump(),Activate(4,5,9),PayCredit(),Cancel(),Reject(),PayCash(50),Approved(),Regular(),Diesel()Super(),PumpLiter(),StopPump(),Receipt(),Turnoff()

Test#19:Activate(4.5,5.7,3.2),PayCredit(),Activate(5,6,7),PayCash(10),PayCredit(),Cancel(),Super(),Regular(),Diesel(),StartPump(),PumpLiter(),StopPump(),Receipt(),NoReceipt(),Turnoff(),Reject(),Turnoff()

Test#20:Activate(3,5,7),PayCash(15),Activate(3,5,8),PayCredit(),PayCash(10),Reject(),Approved(),StartPump(),PumpLiter(),StopPump(),NoReceipt(),Receipt(),Turnoff(),Cancel(),Turnoff()

Test#21:Activate(4,5,6),PayCredit(),Approved(),Regular(),Activate(2,3,4),Approved(),PayCredit(),Reject(),PayCash(5),Regular(),Super(),Diesel(),PumpLiter(),StopPump(),NoReceipt(),Receipt(),Turnoff(),StartPump(),Receipt(),Turnoff()

Test#22:Activate(4,5,6),PayCash(30),Regular(),StartPump(),Activate(1,3,2),PayCredit(),Cancel(),Reject(),Approved(),PayCash(2),Regular(),Super(),Diesel(),StartPump(),NoReceipt(),Receipt(),Turnoff(),PumpLiter(),StopPump(),Receipt(),Turnoff()

Test#23:Activate(4,5,6),PayCredit(),Approved(),Regular(),StartPump(),StopPump(),Activate(2,3,5),PayCredit(),Reject(),Approved(),Cancel(),PayCash(6),Regular(),Super(),Diesel(),StartPump(),PumpLiter(),StopPump(),Turnoff(),Receipt(),Turnoff()

Test#24:Activate(4,5,-6)

Test#25:Activate(4,-5,6)

Test#26:Activate(-4,5,-6)

Test#27:Activate(-4,5,6)

Test#28:Activate(-4,5,-6)

Test#29:Activate(-4,-5,6)

Test#30:Activate(-4,-5,-6)

Test#31:Activate(4,5,6),Activate(4,5,-6)

Test#32:Activate(4,5,6),Activate(4,-5,6)

Test#33:Activate(4,5,6),Activate(4,-5,-6)

Test#34:Activate(4,5,6),Activate(-4,5,6)

Test#35:Activate(4,5,6),Activate(-4,5,-6)

Test#36:Activate(4,5,6),Activate(-4,-5,6)

Test#37:Activate(4,5,6),Activate(-4,-5,-6)

Test#38:Activate(4,5,6),PayCash(1),Cancel(),Turnoff()

Test#39:Activate(4,5,6),PayCash(-5),PayCash(6),PayCredit(),Regular(),Cancel(),TurnOff()

Test#40:Activate(4,5,6),PayCash(-4),PayCash(6),PayCredit(),Super(),StartPump(),PumpLiter(),StopPump(),NoReceipt(),TurnOff()

Test#41:Activate(4,5,6),Receipt(),NoReceipt(),PayCash(9),Super(),StartPump(),PumpLiter(),PumpLiter(),Receipt(),TurnOff()

Test#42:Activate(2,3,4),PayCash(10),Diesel(),StartPump(),PumpLiter(),StopPump(),Receipt(),TurnOff()

Test#43:Activate(2,3,4),PayCash(3),Super(),StartPump(),PumpLiter(),StopPump(),Receipt(),TurnOff()

Test#44:Activate(4,5,6),PayCredit(),PayCash(-5),PayCash(6),Approved(),Super(),PumpLiter(),StartPump(),PumpLiter(),StartPump(),StopPump(),TurnOff(),Receipt(),TurnOff()

Test#45:Activate(4,5,6),PayCash(3),Cancel(),PayCredit(),Approved(),Regular(),StartPump(),PumpLiter(),StopPump(),NoReceipt(),Turnoff()

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STEPS TO EXCECUTE

IDE Used: Eclipse Standard/SDK

Version: Mars.1 Release (4.4.4)

Operating System on PC: Windows 10

Follow the steps in sequence in order to execute the project:

1. Install Eclipse IDE. Launch eclipse in java perspective.
2. Create a local workspace.
3. From the File menu, import the project as a java project to the workspace.
4. Once the project is loaded with the respective packages and the classes, run the testdriverclass.java which has the main function to start the execution of the program.
5. Console output will prompt the user to manually enter the choices and begin with the test case execution when prompted.
6. Execute all the test cases and record the output for each end every test case.
7. Every time, the project is to be run again, select the default workspace, which was earlier used when the program was executed.
8. Close the project and eclipse IDE after successful execution.

CONCLUSION

Here, in this project a class GasPump is provided. In order to carry out the testing of this class, three different testing techniques were utilized, in order to find out any bugs or defects in the test. The Transition and Ghost Pair Testing techniques had all the test cases which were executable. However, in multiple condition testing, some of the test cases were impossible to design, for which the valid justification has been documented. In order to implement this program, I had to write the test driver class, and include all the testing oriented methods which were earlier not included. This meant design all the test drivers for each and every method, like Activate(), PayCredit(), etc. Hence, once these were implemented, I could execute all my test cases and display the output for both the Class based and Model based testing techniques.

For Automation, the part where the user has to design the test cases for multiple condition, etc. can be partially automated, as those values needs to be entered by the user for each and every test case. Complete Automation can be done in the case, where the user is selecting the choices e.g. 1 for Activate(), 2 for PayCredit() , etc. as it makes the job tedious to manually enter each and every test case values.