CS-589 SOFTWARE TESTING AND ANALYSIS

PROJECT REPORT

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Introduction:

The basic goal of this project is to design test cases for class and model based testing. The EFSM and GasPump.java class has been provided and based on them I am performing transition pair, multipltcondition testing and ghost transition testing .
This project will give me a perfect way to implement the knowledge which we got in CS 589 class.

Model Based Testing:

Transition Pair Testing:
In transition pair testing all transition pairs must be traversed at least once.
The pair are constructed between input and output actions for each state.

State 0
I/P -→ T1,T3,T14,T13,T5,T19
O/P → T2,T20,T6
State 1
I/P → T18, T17
O/P → T17 , T16
State 2
I/P → T2
O/P → T3,T4
State 3
I/P → T4 , T6
O/P → T5, T15, T7 , T8
State 4
I/P → T7, T8 , T15
O/P → T9, T18, T19
State 5
I/P → T10, T9
O/P → T10 , T 11 , T12
State 6
I/P → T12 , T11 , T16
O/P → T14, T13

Transition Pairs

S0

T1 , T2	**Test#1**
T1,T20	**Test #8**
T1 , T6	**Test #4**
T3, T2	**Test #10**
T3 , T20	**Test #1**
T3, T6	**Test #9**
T14 , T2	**Test #10**
T14 , T20	**Test # 7**
T14 , T6	**Test #12**
T13, T2	**Test #13**
T13, T20	**Test # 6**
T13 , T6	**Test #11**
T5 , T2	**Test #4**
T5,T20	**Test #2**
T5,T6	**Test #14**
T19,T2	**Test #14**
T19,T20	**Test #3**
T19,T6	**Test #16**

S1

T18 , T17	**Test #10**
T18, T16	**Test #11**
T17 , T17	**Test #10**
T17 , T16	**Test #10**

S2

T2,T3	**Test #1**
T2,T4	**Test #2**

S3

T4 , T5	**Test #2**
T4 , T15	**Test #3**
T4, T7	**Test #4**
T4,T8	**Test # 5**
T6 , T5	**Test #4**
T6,T15	**Test # 6**
T6,T7	**Test #9**
T6,T8	**Test # 7**

S4

T7,T9	**Test #9**
T7,T18	**Test #10**
T7,T19	**Test #4**
T8,T9	**Test # 7**
T8,T18	**Test #11**
T8,T19	**Test # 5**
T15,T9	**Test # 6**
T15,T18	**Test #12**
T15,T19	**Test #3**

S5

T10,T10	**Test # 6**
T10,T11	**Test # 6**
T10,T12	**Test #13**
T9,T10	**Test # 6**
T9,T11	**Test #15**
T9,T12	**Test # 7**

S6

T12,T14	**Test # 7**
T12,T13	**Test #13**
T11,T14	**Test #9**
T11,T13	**Test # 6**
T16,T14	**Test #10**
T16,T13	**Test #11**

Test cases for model Based Testing

Test#1	Activate(4.0,5.2,6.0), PayCredit(), Reject(),TurnOff()
Test#2	Activate(4.0,5.9,6.0) , PayCredit(), Approved(),Cancel(),TurnOff()
Test #3	Activate(4.2,5.2,6.2) , PayCredit(), Approved(),Diesel(),Cancel(),TurnOff()
Test #4	Activate(4.0,5.0,6.0), PayCash(3.0),Cancel(),PayCredit(), Approved(), Regular(), Cancel(), TurnOff()
Test # 5	Activate(4.2,5.2,6.2) , PayCredit(), Approved(),Super(),Cancel(),Turnoff()
Test # 6	Activate(4.0,5.0,6.0), PayCash(12.0),Diesel(),StartPump(),PumpLiter(), PumpLiter(), StopPump(), Reciept(), TurnOff()
Test # 7	Activate(4.0,5.0,6.0), PayCash(2.0),Super(),StartPump(),PumpLiter(),NoReciept(), TurnOff()
Test #8	Activate(4.0,5.0,6.0), TurnOff()
Test #9	Activate(4.0,5.0,6.0), PayCredit(), Reject(), PayCash(10.0), Regular(), StartPump(), PumpLiter(), StopPump(), NoReceipt(), TurnOff()
Test #10	Activate(4.0,5.0,6.0), PayCredit(), Reject(),PayCredit(), Approved(), Regular(), StartPump(), PumpLiter(),PumpLiter(), StopPump(), NoReceipt(),PayCredit(), Reject(),TurnOff()
Test #11	Activate(4.0,5.0,6.0), PayCredit(), Approved(),Super(), StartPump(), StopPump(), Reciept(),PayCash(3.0),Cancel(), TurnOff()
Test #12	Activate(4.0,5.0,6.0), PayCredit(), Approved(), Diesel() , StartPump(), StopPump(), NoReciept(),PayCash(3.0),Cancel(), TurnOff()
Test #13	Activate(4.0,5.0,6.0), PayCash(11.0),Diesel(),StartPump(),PumpLiter(), PumpLiter(), Reciept(),PayCredit(), Reject(), TurnOff()
Test #14	Activate(4.0,5.0,6.0), PayCash(12.0),Cancel(), PayCash(5.0), Super(), Cancel(), PayCredit(), Reject(), TurnOff()
Test #15	Activate(4.0,5.0,6.0), PayCash(12.0),Diesel(),StartPump(), StopPump(), NoReceipt(), TurnOff()
Test #16	Activate(4.0,5.0,6.0), PayCash(12.0),Regular(), Cancel(), PayCash(18.0), Cancel(), TurnOff()

Multiple - Conditional Testing:

Testing conditions with complex predicates. I will be testing all the combinations of predicates

1.Activate

k == -1	a>0	b>0	d>0	Test Case
T	T	T	T	**Test#17**
T	T	T	F	**Test#17**
T	T	F	T	**Test#17**
T	T	F	F	**Test#17**
T	F	T	T	**Test#17**
T	F	T	F	**Test#17**
T	F	F	T	**Test#17**
T	F	F	F	**Test#17**
F	T	T	T	**Test #18**
F	T	T	F	**Test #18**
F	T	F	T	**Test #18**
F	T	F	F	**Test #18**
F	F	T	T	**Test #18**
F	F	T	F	**Test #18**
F	F	F	T	**Test #18**
F	F	F	F	**Test #18**

2.Pay Credit

k==0	Test Case
T	**Test#17**
F	**Test #19**

3.Reject

k==2	Test Case
T	**Test#17**
F	**Test #20**

4.Cancel

k==3	k==4	Test Case
T	T	**Impossible**
T	F	**Test #18**
F	T	**Test #20**
F	F	**Test #21**

Justifaction 1 - The value of k is either 3 or 4 but can never be both at a same time.

w==0	Test Case
T	**Test #18**
F	**Test #20**

5.Approved

k==2	Test case
T	**Test #20**
F	**Test #21**

6.PayCash

k==0	c>0	Test Case
T	T	**Test #18**
T	F	**Test #19**
F	T	**Test #22**
F	F	**Test #22**

7.Regular

k==3	Test case
T	**Test #19**
F	**Test #21**

8.Super

k==3	Test case
T	**Test #21**
F	**Test #21**

9.Diesel

k==3	Test case
T	**Test #20**
F	**Test #21**

10.Start Pump

k==4	Test case
T	**Test #19**
F	**Test #22**

11.PumpLiter

k==5	Test case
T	**Test #19**
F	**Test #22**

w==1	cash>=price*(L+1)	w==0	Test Case
T	T	T	**Impossible**
T	T	F	**Impossible**
T	F	T	**Impossible**
T	F	F	**Test #22**
F	T	T	**Test #19**
F	T	F	**Impossible**
F	F	T	**Test #23**
F	F	F	**Impossible**

Justification 2 - w can be 0 or 1 but not both at the same time

Justification 3 – we have value of some cash present so w has to be 0 not 1

Justification 4 – w can be 0 or 1 but not both at the same time

Justification 5 – w has to have a value , specifically w should be 0 as some cash is there

Justification 6 – w has to have some value, specifically it should be 1 as there is not cash so its paid by credit

w==0	cash<price*(L+1)	Test Case
T	T	**Test #19**
T	F	**Impossible**
F	T	**Impossible**
F	F	**Impossible**

Justification 7 - w is zero , so its pay by cash and cash has to be greater than price and if that is the case if the program will never come to this branch.

Justification 8 – as some cash is presnt , w can never be 1

Justification 9 - as it's a paycash scenario w has to be 1

w==0	total<cash	Test Case
T	T	**Test #19**
T	F	**Test #24**
F	T	**Impossible**
F	F	**Impossible**

Justification 10 – It paycash scenario so w has be equal to 0 and total cant be less than cash

Justification 11 - It paycash scenario so w has be equal to 0

12.Stop Pump

k==5	Test case
T	**Test #22**
F	**Test #19**

w==0	total<cash	Test Case
T	T	**Test #25**
T	F	**Test #26**
F	T	**Impossible**
F	F	**Test #22**

Justification 12 – It is a PayCash scenario so w has to be equal to zero and total can never be less than cash

13.No Receipt

k==6	Test case
T	**Test #22**
F	**Test #24**

14.Receipt

k==6	Test case
T	**Test #19**
F	**Test #24**

15.TurnOff

k==0	Test case
T	**Test #19**
F	**Test #22**

Test cases for multiple condition testing

Test #17	Activate(4.0,6.0,-3.0), Activate(4.0,-6.0,3.0), Activate(4.0,-6.0,-3.0), Activate(-4.0,6.0,3.0), Activate(-4.0,6.0,-3.0), Activate(-4.0,-6.0,3.0), Activate(-4.0,-6.0,-3.0), Activate(4.0,6.0,3.0),PayCredit(),Reject(),TurnOff()
Test #18	Activate(4.0,6.0,3.0),PayCash(10.0),cancel(),Activate(4.0,6.0,3.0), Activate(4.0,6.0,-3.0), Activate(4.0,-6.0,3.0), Activate(4.0,-6.0,-3.0), Activate(-4.0,6.0,3.0), Activate(-4.0,6.0,-3.0), Activate(-4.0,-6.0,3.0), Activate(-4.0,-6.0,-3.0),TurnOff()
Test #19	Activate(4.0,6.0,3.0),PayCash(-10),PayCash(4.5),PayCredit(),Regular(),StartPump(), PumpLiter(),StopPump(),Reciept(), TurnOff()
Test #20	Activate(4.0,6.0,3.0),Reject(),PayCredit(),Approved(),Diesel(),Cancel(),TurnOff()
Test #21	Activate(4.0,6.0,3.0),Approved(),PayCredit(),Cancel(),Approved(),Super(),Super(), Regular(),Diesel(),Cancel(),TurnOff()
Test #22	Activate(4.0,6.0,3.0),PayCredit(),PayCash(-5), PayCash(5), Approved(), Diesel(), PumpLiter(),StartPump(),PumpLiter(),StartPump() ,StopPump(),TurnOff(), NoReciept(), TurnOff()
Test #23	Activate(4.0,6.0,3.0), PayCash(1.0), Regular(), StartPump(), Pumpliter(), Reciept(), TurnOff()
Test #24	Activate(4.0,6.0,3.0), Receipt(), NoReceipt(), PayCash(7.0), Super(),StartPump(), Pumpliter(), Pumpliter(), NoReciept(), TurnOff()
Test #25	Activate(4.0,6.0,3.0), PayCash(30.0), Regular(), StartPump(), Pumpliter(), StopPump(), Reciept(), TurnOff()
Test #26	Activate(4.0,6.0,3.0), PayCash(4.0), Regular(), StartPump(), Pumpliter(), StopPump(), Reciept(), TurnOff()

Testing Default (Ghost) Transitions:

When the default/ghost transitions are executed there is no change in the state and no action is performed.

STATE	Normal	Ghost Transition	TEST #
S0	TurnOff() PayCredit() PayCash(c)[c>0]	Activate(a,b,d),Reject(), Approved(), Cancel(), Paycash(-c), Regular(), Super(), Diesel(), StartPump(), PumpLiter(), StopPump(), NoReceipt(), Receipt(),	Test #27
S1	PumpLiter() StopPump()	StartPump(), Activate(a,b,d), PayCredit(), Reject(), Cancel(), Approved(), TurnOff(), Regular(), Super(), Diesel(), PayCash(c), Receipt(), NoReceipt(),	Test #29
S2	Reject() Approved()	PayCredit(), Activate(a,b,d), Super(), Diesel(), StartPump(), Cancel(), Paycash(c), Regular(),PumpLiter(), StopPump(), NoReceipt(), Receipt(),TurnOff(),	Test #27
S3	Diesel() Super() Regular() Cancel()	Activate(a,b,d), PayCredit(), PayCash(c), StartPump(), PumpLiter(), StopPump(), Receipt(), NoReceipt(), TurnOff(), Reject(), Approved()	Test #28
S4	StartPump() Cancel()	Activate(a,b,d), Approved(),PayCredit(), PayCash(c), PumpLiter(),StopPump(), StartPump(w!=1&&w!=0)Receipt(), NoReceipt(),TurnOff(), Regular(), Super(), Diesel(), Reject(),	Test #28
S5	PumpLiter() StopPump()	Activate(a,b,d), PayCash(c), Regular(), Super(), Diesel(), PayCredit(), Reject(), Cancel(), Approved(), Receipt(), NoReceipt(), TurnOff(), Startpump(), PumpLiter(1- [{cash>=price*(L+1)} or {cash<price*(L+1)}])	Test #30
S6	NoReceipt() Receipt()	Activate(a,b,d), PayCredit(), Reject(), Cancel(), Approved(),TurnOff(), Startpump(), PumpLiter(), StopPump(),PayCash(c), Regular(),Super(),Diesel(),	Test #29
Start	Activate(a,b,d)	PayCredit(), Reject(), Cancel(), Approved(), PayCash(c), PumpLiter(), StopPump(),NoReceipt() ,Receipt(), TurnOff(),Regular(),Super(),Diesel(), Startpump(),	Test #31

Test Cases for Ghost Transitions Testing

Test #27	**State S0, S2**	Activate(4.0,6.0,3.0), Activate(4.0,6.0,3.0),Reject(), Approved(), Cancel(), Paycash(-5), Regular(), Super(), Diesel(), StartPump(), PumpLiter(), StopPump(), NoReceipt(), Receipt(), PayCredit(),PayCredit(),Activate(4.0,6.0,3.0), Cancel(), Paycash(5), Regular(), Super(), Diesel(), StartPump(), PumpLiter(), StopPump(), NoReceipt(), Receipt(),TurnOff(), Reject(), TurnOff()
Test #28	**State S3, S4**	Activate(4.0,6.0,3.0), PayCredit(), Approved(), Activate(4.0,6.0,3.0),Reject(), PayCredit(), Approved(), Paycash(5), StartPump(), PumpLiter(), StopPump(), NoReceipt(), Receipt(),TurnOff(), Regular(),Activate(4.0,6.0,3.0), PayCredit(),Reject(), Approved(), Paycash(5), Regular(), Super(), Diesel(),PumpLiter(), StopPump(), NoReceipt(), Receipt(),TurnOff(),Cancel(), TurnOff()
Test #29	**State S1, S6**	Activate(4.0, 6.0, 3.0) , PayCredit(), Approved(), Super(), StartPump(),Activate(4.0,6.0,3.0), PayCredit(),Reject(), Cancel(), Approved(), Paycash(5), Regular(), Super(), Diesel(), StartPump(),NoReceipt(), Receipt(),TurnOff(), StopPump(),Activate(4.0,6.0,3.0), PayCredit(),Reject(), Cancel(), Approved(), Paycash(5), Regular(), Super(), Diesel(), StartPump(),PumpLiter(), StopPump(),TurnOff(),Receipt(), TurnOff()
Test #30	**State S5**	Activate(4.0,6.0,3.0),PayCash(4),Regular(),StartPump(),StartPump(), Regular(),Super(), Diesel(), PayCredit(), PayCash(4), Approved(), Reject(), Cancel(), NoReceipt(), Receipt(),TurnOff(), Activate(2,3,4) StopPump(), NoReceipt(),TurnOff()
Test #31	**Start**	PayCredit(), Reject(), Cancel(), Approved(), PayCash(5), Regular(),Super(),Diesel(), Startpump(), PumpLiter(), StopPump(),NoReceipt() ,Receipt(), TurnOff(), Activate(4.0,6.0,3.0), PayCredit(), Reject(), TurnOff()

Test Suit

The created test suite has passed the test suite checker and TS.txt file is given for further evaluation and reference. Test cases are refered with same numbers in the whole document.

Test#1: Activate 4.0 5.2 6.0 PayCredit Reject TurnOff
Test#2: Activate 4.0 5.9 6.0 PayCredit Approved Cancel TurnOff
Test#3: Activate 4.2 5.2 6.2 PayCredit Approved Diesel Cancel TurnOff
Test#4: Activate 4.0 5.0 6.0 PayCash 3.0 Cancel PayCredit Approved Regular Cancel TurnOff
Test#5: Activate 4.2 5.2 6.2 PayCredit Approved Super Cancel TurnOff

Test#6: Activate 4.0 5.0 6.0 PayCash 12.0 Diesel StartPump PumpLiter PumpLiter StopPump Receipt TurnOff
Test#7: Activate 4 5 6 PayCash 2 Super StartPump PumpLiter NoReceipt TurnOff
Test#8: Activate 4 5 6 TurnOff
Test#9: Activate 4 5 6 PayCredit Reject PayCash 10 Regular StartPump PumpLiter StopPump NoReceipt TurnOff
Test#10: Activate 4 5 6 PayCredit Reject PayCredit Approved Regular StartPump PumpLiter PumpLiter StopPump NoReceipt PayCredit Reject TurnOff
Test#11: Activate 4 5 6 PayCredit Approved Super StartPump StopPump Receipt PayCash 10 Cancel TurnOff
Test#12: Activate 4 5 6 PayCredit Approved Diesel StartPump StopPump NoReceipt PayCash 10 Cancel TurnOff
Test#13: Activate 4 5 6 PayCash 11 Diesel StartPump PumpLiter PumpLiter Receipt PayCredit Reject TurnOff
Test#14: Activate 4 5 6 PayCash 12 Cancel PayCash 5 Super Cancel PayCredit Reject TurnOff
Test#15: Activate 4 5 6 PayCash 12 Diesel StartPump StopPump NoReceipt TurnOff
Test#16: Activate 4 5 6 PayCash 12 Regular Cancel PayCash 12 Cancel TurnOff
Test#17: Activate 4.0 6.0 -3.0 Activate 4.0 -6.0 3.0 Activate 4.0 -6.0 -3.0 Activate -4.0 6.0 3.0 Activate -4.0 6.0 -3.0 Activate -4.0 -6.0 3.0 Activate -4.0 -6.0 -3.0 Activate 4.0 6.0 3.0 PayCredit Reject TurnOff
Test#18: Activate 4 5 6 PayCash 12 Cancel Activate 4 5 6 Activate 4.0 6.0 -3.0 Activate 4.0 -6.0 3.0 Activate 4.0 -6.0 -3.0 Activate -4.0 6.0 3.0 Activate -4.0 6.0 -3.0 Activate -4.0 -6.0 3.0 Activate -4.0 -6.0 -3.0 TurnOff
Test#19: Activate 4 6 3 PayCash -10 PayCash 4.5 PayCredit Regular StartPump PumpLiter StopPump Receipt TurnOff
Test#20: Activate 4 6 3 Reject PayCredit Approved Diesel Cancel TurnOff
Test#21: Activate 4 6 3 Approved PayCredit Cancel Approved Super Super Regular Diesel Cancel TurnOff
Test#22: Activate 4 6 3 PayCredit PayCash -5 PayCash 5 Approved Diesel PumpLiter StartPump PumpLiter StartPump StopPump TurnOff NoReceipt TurnOff
Test#23: Activate 4 6 3 PayCash 1 Regular StartPump PumpLiter Receipt TurnOff
Test#24: Activate 4 6 3 Receipt NoReceipt PayCash 7 Super StartPump PumpLiter PumpLiter NoReceipt TurnOff
Test#25: Activate 4 6 3 PayCash 30 Regular StartPump PumpLiter StopPump Receipt TurnOff
Test#26: Activate 4 6 3 PayCash 4 Regular StartPump PumpLiter StopPump Receipt TurnOff
Test#27: Activate 4 6 3 Activate 4 6 3 Reject Approved Cancel PayCash -5 Regular Super Diesel StartPump PumpLiter StopPump NoReceipt Receipt PayCredit PayCredit Activate 4.0 6.0 3.0 Cancel PayCash 8 Regular Super Diesel StartPump PumpLiter StopPump NoReceipt Receipt TurnOff Reject TurnOff
Test#28: Activate 4.0 6.0 3.0 PayCredit Approved Activate 4.0 6.0 3.0 Reject PayCredit Approved PayCash 5 StartPump PumpLiter StopPump NoReceipt Receipt TurnOff Regular Activate 4.0 6.0 3.0 PayCredit Reject Approved PayCash 5 Regular Super Diesel PumpLiter StopPump NoReceipt Receipt TurnOff Cancel TurnOff

Test#29: Activate 4.0 6.0 3.0 PayCredit Approved Super StartPump Activate 4.0 6.0 3.0 PayCredit Reject Cancel Approved PayCash 5 Regular Super Diesel StartPump NoReceipt Receipt TurnOff StopPump Activate 4 5 6 PayCredit Reject Cancel Approved PayCash 5 Regular Super Diesel StartPump PumpLiter StopPump TurnOff Receipt TurnOff
Test#30: Activate 4.0 6.0 3.0 PayCash 4 Regular StartPump StartPump Regular Super Diesel PayCredit PayCash 4 Approved Reject Cancel NoReceipt Receipt TurnOff Activate 2 3 4 StopPump NoReceipt TurnOff
Test#31: PayCredit Reject Cancel Approved PayCash 5 Regular Super Diesel Startpump PumpLiter StopPump NoReceipt Receipt TurnOff Activate 4.0 6.0 3.0 PayCredit Reject TurnOff $$
All the test cases documented in the TS.txt file covers Transition pair testing, Ghost transition testing and Multiple condition testing for the class GasPump. All the test cases passed successfully with no error.

Execution of the test suite

Transition Pair Testing:

For transition pair testing the most important variable is State s because it shows whether the transition has executed or not. After every method we will call GetState so that we can verify the state.

Test#1: Activate(4.0,5.2,6.0) PayCredit() Reject() TurnOff

Action	Expected Output	Actual Output	Result
Activate(4.0,5.2,6.0)	You selected Activate Enter regular price 4.0 Enter super price 5.2 Enter diesel price 6.0 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Values of Variables Rprice: 4.0 Sprice: 5.2 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	You selected Activate Enter regular price 4.0 Enter super price 5.2 Enter diesel price 6.0 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Values of Variables Rprice: 4.0 Sprice: 5.2 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	Passed

	Total Gasoline pumped: 0.0	Total Gasoline pumped: 0.0	
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.2 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0Sprice: 5.2Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Reject()	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.2 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.2 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.2 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.2 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test#2: Activate(4.0,5.9,6.0) , PayCredit(), Approved(),Cancel(),TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,5.9,6.0)	You selected Activate Enter regular price 4.0 Enter super price 5.9 Enter diesel price 6.0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.9 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4.0 Enter super price 5.9 Enter diesel price 6.0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.9 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is :S2 Values of Variables Rprice: 4.0 Sprice: 5.9 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.9 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Approved()	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.9 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.9 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Cancel()	You selected cancel TRANSACTION IS CANCELLED. Return Value is1	You selected cancel TRANSACTION IS CANCELLED. Return Value is1	Passed

	State is : S0 *w: 1* *Selected Price: 0.0* *Cash: 0.0* *Total Cost: 0.0* *Total Gasoline pumped: 0.0* Values of Variables Rprice: 4.0 Sprice: 5.9 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S0 *w: 1* *Selected Price: 0.0* *Cash: 0.0* *Total Cost: 0.0* *Total Gasoline pumped: 0.0* Values of Variables Rprice: 4.0 Sprice: 5.9 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
TurnOff	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.9 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.9 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test#3: Activate(4.2,5.2,6.2) , PayCredit(), Approved(),Diesel(),Cancel(),TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.2,5.2,6.2)	You selected Activate Enter regular price	You selected Activate Enter regular price	Passed

	4.2 Enter super price 5.2 Enter diesel price 6.2 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	4.2 Enter super price 5.2 Enter diesel price 6.2 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Approved()	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER	Passed

	c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Diesel()	You selected Diesel type DIESEL IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 6.2 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Diesel type DIESEL IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 6.2 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Cancel()	You selected cancel TRANSACTION IS CANCELLED. Return Value is1 State is : S0 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 6.2 Cash: 0.0	You selected cancel TRANSACTION IS CANCELLED. Return Value is1 State is : S0 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 6.2 Cash: 0.0	Passed

	Total Cost: 0.0 Total Gasoline pumped: 0.0	Total Cost: 0.0 Total Gasoline pumped: 0.0	
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 6.2 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is :Exit Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 6.2 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test #4 - Activate(4.0,5.0,6.0), PayCash(3.0),Cancel(),PayCredit(), Approved(), Regular(), Cancel(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,5.0,6.0)	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0	Passed

	Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCash(3.0)	You selected to pay by cash Enter Cash 3 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected to pay by cash Enter Cash 3 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Cancel()	You selected cancel TRANSACTION IS CANCELLED. $3.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 3.0 Total Cost: 0.0	You selected cancel TRANSACTION IS CANCELLED. $3.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 3.0 Total Cost: 0.0	Passed

	Total Gasoline pumped: 0.0	Total Gasoline pumped: 0.0	
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Approved()	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Regular()	You selected Regular type	You selected Regular type	Passed

	REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Cancel()	You selected cancel TRANSACTION IS CANCELLED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected cancel TRANSACTION IS CANCELLED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 3.0 Total Cost: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 3.0 Total Cost: 0.0	Passed

	Total Gasoline pumped: 0.0	Total Gasoline pumped: 0.0	

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test # 5 - Activate(4.2,5.2,6.2) , PayCredit(), Approved(),Super(),Cancel(),Turnoff()

Actions	Expected Output	Actual Output	Result
Activate(4.2,5.2,6.2)	You selected Activate Enter regular price 4.2 Enter super price 5.2 Enter diesel price 6.2 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4.2 Enter super price 5.2 Enter diesel price 6.2 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 0	Passed

	Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Approved()	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Super ()	You selected Super type SUPER IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 5.2 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Super type SUPER IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 5.2 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Cancel()	You selected cancel	You selected cancel	Passed

	TRANSACTION IS CANCELLED. Return Value is1 State is : S0 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 5.2 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	TRANSACTION IS CANCELLED. Return Value is1 State is : S0 Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 5.2 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 5.2 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.2 Sprice: 5.2 Dprice: 6.2 w: 1 Selected Price: 5.2 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test # 6 -Activate(4.0,5.0,6.0), PayCash(12.0),Diesel(),StartPump(),PumpLiter(), PumpLiter(), StopPump(), Reciept(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,5.0,6.0)	You selected Activate Enter regular price 4 Enter super price 5	You selected Activate Enter regular price 4 Enter super price 5	Passed

	Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCash(12)	You selected to pay by cash Enter Cash 12 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected to pay by cash Enter Cash 12 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Diesel()	You selected Diesel type DIESEL IS SELECTED. Return Value is1 State is : S4 Values of Variables	You selected Diesel type DIESEL IS SELECTED. Return Value is1 State is : S4 Values of Variables	Passed

	Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PumpLiter()	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $6.0 CONTINUE PUMPING Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $6.0 CONTINUE PUMPING Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0	Passed

	Cash: 12.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	Cash: 12.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	
PumpLiter()	You selected pump liter # OF LITERS PUMPED: 2 TOTAL CHARGE: $12.0 CONTINUE PUMPING Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 12.0 Total Gasoline pumped: 2.0	You selected pump liter # OF LITERS PUMPED: 2 TOTAL CHARGE: $12.0 CONTINUE PUMPING Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 12.0 Total Gasoline pumped: 2.0	Passed
StopPump()	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 2 TOTAL CHARGE: $12.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 12.0 Total Gasoline pumped: 2.0	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 2 TOTAL CHARGE: $12.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 12.0 Total Gasoline pumped: 2.0	Passed

Reciept()	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 2 TOTAL CHARGE: $12.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 12.0 Total Gasoline pumped: 2.0	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 2 TOTAL CHARGE: $12.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 12.0 Total Gasoline pumped: 2.0	Passed
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 12.0 Total Gasoline pumped: 2.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 12.0 Total Gasoline pumped: 2.0	Passed

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test #7 - Activate(4.0,5.0,6.0), PayCash(2.0),Super(),StartPump(),PumpLiter(),NoReciept(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,5.0,6.0)	You selected Activate	You selected Activate	Passed

	Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : s0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCash(2)	You selected to pay by cash Enter Cash 2 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 2.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected to pay by cash Enter Cash 2 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : s3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 2.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Super ()	You selected Super type SUPER IS SELECTED. Return Value is1	You selected Super type SUPER IS SELECTED. Return Value is1	Passed

	State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 2.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 2.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 2.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 2.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PumpLiter()	You selected pump liter PUMP STOPPED. NOT SUFFICIENT FUNDS. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 $2.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables	You selected pump liter PUMP STOPPED. NOT SUFFICIENT FUNDS. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 $2.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables	Passed

	Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 2.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 2.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
NoReciept()	You selected No reciept NO RECEIPT IS PRINTED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 2.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected No reciept NO RECEIPT IS PRINTED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 2.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 2.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 2.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test #8Activate(4.0,5.0,6.0), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,5.0,6.0)	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test #9Activate(4.0,5.0,6.0), PayCredit(), Reject(), PayCash(10.0), Regular(), StartPump(), PumpLiter(), StopPump(), NoReceipt(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,5.0,6.0)	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline	Passed

	pumped: 0.0	pumped: 0.0	
Reject()	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCash(10.0)	You selected to pay by cash Enter Cash 10 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected to pay by cash Enter Cash 10 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Regular()	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PumpLiter()	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 CONTINUE PUMPING Return Value is1	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 CONTINUE PUMPING Return Value is1	Passed

	State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 10.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 10.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	
StopPump()	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 $6.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 10.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 $6.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 10.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	Passed
NoReceipt()	You selected No reciept NO RECEIPT IS PRINTED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0	You selected No reciept NO RECEIPT IS PRINTED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0	Passed

	Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 10.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 10.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is 1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 10.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 10.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	Passed

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test #10 - Activate(4.0,5.0,6.0), PayCredit(), Reject(),PayCredit(), Approved(), Regular(), StartPump(), PumpLiter(),PumpLiter(), StopPump(), NoReceipt(),PayCredit(), Reject(),TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,5.0,6.0)	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1	Passed

	State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Reject()	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	Passed

	Total Gasoline pumped: 0.0	Total Gasoline pumped: 0.0	
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Approved()	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Regular()	You selected Regular type REGULAR IS SELECTED.	You selected Regular type REGULAR IS SELECTED.	Passed

	Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S1 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S1 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PumpLiter()	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 CONTINUE PUMPING Return Value is1 State is : S1 Values of Variables Rprice: 4.0	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 CONTINUE PUMPING Return Value is1 State is : S1 Values of Variables Rprice: 4.0	Passed

	Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	
PumpLiter()	You selected pump liter # OF LITERS PUMPED: 2 TOTAL CHARGE: $8.0 CONTINUE PUMPING Return Value is1 State is : S1 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 8.0 Total Gasoline pumped: 2.0	You selected pump liter # OF LITERS PUMPED: 2 TOTAL CHARGE: $8.0 CONTINUE PUMPING Return Value is1 State is : S1 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 8.0 Total Gasoline pumped: 2.0	Passed
StopPump()	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 2 TOTAL CHARGE: $8.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 2 TOTAL CHARGE: $8.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1	Passed

	Selected Price: 4.0 Cash: 0.0 Total Cost: 8.0 Total Gasoline pumped: 2.0	Selected Price: 4.0 Cash: 0.0 Total Cost: 8.0 Total Gasoline pumped: 2.0	
NoReceipt()	You selected No reciept NO RECEIPT IS PRINTED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 8.0 Total Gasoline pumped: 2.0	You selected No reciept NO RECEIPT IS PRINTED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 8.0 Total Gasoline pumped: 2.0	Passed
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 8.0 Total Gasoline pumped: 2.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 8.0 Total Gasoline pumped: 2.0	Passed
Reject()	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1	Passed

	State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 8.0 Total Gasoline pumped: 2.0	State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 8.0 Total Gasoline pumped: 2.0	
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is 1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 8.0 Total Gasoline pumped: 2.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is 1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 8.0 Total Gasoline pumped: 2.0	Passed

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test #11 - Activate(4.0,5.0,6.0), PayCredit(), Approved(),Super(), StartPump(), StopPump(), Reciept(),PayCash(3.0),Cancel(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,5.0,6.0)	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6	Passed

	GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Approved()	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0	Passed

	Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Super()	You selected Super type SUPER IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 5.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Super type SUPER IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 5.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S1 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 5.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S1 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 5.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

StopPump()	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 5.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 5.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Receipt()	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 5.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 5.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCash(3)	You selected to pay by cash Enter Cash 3	You selected to pay by cash Enter Cash 3	Passed

	SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Cancel()	You selected cancel TRANSACTION IS CANCELLED. $3.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected cancel TRANSACTION IS CANCELLED. $3.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is 1 State is : Exit Values of Variables	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is 1 State is : Exit Values of Variables	Passed

	Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test #12- Activate(4.0,5.0,6.0), PayCredit(), Approved(), Diesel() , StartPump(), StopPump(), NoReciept(),PayCash(3.0),Cancel(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,5.0,6.0)	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1	Passed

	State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Approved()	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Diesel()	You selected Diesel type DIESEL IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0	You selected Diesel type DIESEL IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0	Passed

	w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S1 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S1 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
StopPump()	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 6.0 Cash: 0.0	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 6.0 Cash: 0.0	Passed

	Total Cost: 0.0 Total Gasoline pumped: 0.0	Total Cost: 0.0 Total Gasoline pumped: 0.0	
NoReceipt()	You selected No reciept NO RECEIPT IS PRINTED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected No reciept NO RECEIPT IS PRINTED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCash(3.0)	You selected to pay by cash Enter Cash 3 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected to pay by cash Enter Cash 3 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Cancel()	You selected cancel TRANSACTION IS	You selected cancel TRANSACTION IS	Passed

	CANCELLED. $3.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	CANCELLED. $3.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is 1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is 1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 3.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test #13- Activate(4.0,5.0,6.0), PayCash(11.0),Diesel(),StartPump(),PumpLiter(), PumpLiter(), Reciept(),PayCredit(), Reject(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,5.0,6.0)	You selected Activate Enter regular price 4	You selected Activate Enter regular price 4	Passed

	Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCash(11)	You selected to pay by cash Enter Cash 11 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 11.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected to pay by cash Enter Cash 12 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 11.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Deisel()	You selected Diesel type DIESEL IS SELECTED.	You selected Diesel type DIESEL IS SELECTED.	Passed

	Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PumpLiter()	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $6.0 CONTINUE PUMPING Return Value is1 State is : S5 Values of Variables	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $6.0 CONTINUE PUMPING Return Value is1 State is : S5 Values of Variables	Passed

	Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	
PumpLiter()	You selected pump liter PUMP STOPPED. NOT SUFFICIENT FUNDS. # OF LITERS PUMPED: 1 TOTAL CHARGE: $6.0 $5.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	You selected pump liter PUMP STOPPED. NOT SUFFICIENT FUNDS. # OF LITERS PUMPED: 1 TOTAL CHARGE: $6.0 $5.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	Passed
Receipt()	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 1 TOTAL CHARGE: $6.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 1 TOTAL CHARGE: $6.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0	Passed

	Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	Passed
Reject()	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	Passed
TurnOff()	You selected Turn Off GAS PUMP IS TURNED	You selected Turn Off GAS PUMP IS TURNED	Passed

	OFF Return Value is 1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	OFF Return Value is 1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 11.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test #14- Activate(4.0,5.0,6.0), PayCash(12.0),Cancel(), PayCash(5.0), Super(), Cancel(), PayCredit(), Reject(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,5.0,6.0)	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

PayCash(12.0)	You selected to pay by cash Enter Cash 12 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected to pay by cash Enter Cash 12 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Cancel()	You selected cancel TRANSACTION IS CANCELLED. $12.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected cancel TRANSACTION IS CANCELLED. $12.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCash(5.0)	You selected to pay by cash Enter Cash 5	You selected to pay by cash Enter Cash 5	Passed

	SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Super()	You selected Super type SUPER IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 5.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Super type SUPER IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 5.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Cancel()	You selected cancel TRANSACTION IS CANCELLED. $5.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0	You selected cancel TRANSACTION IS CANCELLED. $5.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0	Passed

	Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 5.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 5.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 5.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 5.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Reject()	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 5.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 5.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	You selected Turn Off	You selected Turn Off	Passed

	GAS PUMP IS TURNED OFF Return Value is 1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 5.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	GAS PUMP IS TURNED OFF Return Value is 1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 5.0 Cash: 5.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test #15- Activate(4.0,5.0,6.0), PayCash(12.0),Diesel(),StartPump(), StopPump(), NoReceipt(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,5.0,6.0)	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCash(12)	You selected to pay	You selected to pay	Passed

	by cash Enter Cash 12 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	by cash Enter Cash 12 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Deisel()	You selected Diesel type DIESEL IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Diesel type DIESEL IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0	Passed

	Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
StopPump()	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 $12.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 $12.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
NoReceipt()	You selected No reciept NO RECEIPT IS PRINTED Return Value is1 State is : S0 Values of Variables	You selected No reciept NO RECEIPT IS PRINTED Return Value is1 State is : S0 Values of Variables	Passed

	Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is 1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is 1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 6.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Test #16- Activate(4.0,5.0,6.0), PayCash(12.0),Regular(), Cancel(), PayCash(18.0), Cancel(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,5.0,6.0)	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1	You selected Activate Enter regular price 4 Enter super price 5 Enter diesel price 6 GAS PUMP IS ON Return Value is1	Passed

	State is : 0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : 0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCash(12)	You selected to pay by cash Enter Cash 12 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected to pay by cash Enter Cash 12 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 0.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Regular()	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0	Passed

	Selected Price: 4.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Selected Price: 4.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Cancel()	You selected cancel TRANSACTION IS CANCELLED. $12.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected cancel TRANSACTION IS CANCELLED. $12.0 OF CASH IS RETURNED Return Value is1 State is :S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 12.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCash(18)	You selected to pay by cash Enter Cash 18 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 18.0 Total Cost: 0.0	You selected to pay by cash Enter Cash 18 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 18.0 Total Cost: 0.0	Passed

	Total Gasoline pumped: 0.0	Total Gasoline pumped: 0.0	
Cancel()	You selected cancel TRANSACTION IS CANCELLED. $18.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 18.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected cancel TRANSACTION IS CANCELLED. $18.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 18.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is 1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 18.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is 1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 5.0 Dprice: 6.0 w: 0 Selected Price: 4.0 Cash: 18.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Results produced by this test case are as expected.The test case is designed to test the coverage of Transition pairs and they are successfully covered.

Multiple Condition Testing:

Since multiple condition testing involves many predicates each condition requires different intermediate variables. And these variables values are checked after every operation and compared with expected values

Test #17 - Activate(4.0,6.0,-3.0), Activate(4.0,-6.0,3.0), Activate(4.0,-6.0,-3.0), Activate(-4.0,6.0,3.0), Activate(-4.0,6.0,-3.0), Activate(-4.0,-6.0,3.0), Activate(-4.0,-6.0,-3.0), Activate(4.0,6.0,3.0),PayCredit(),Reject(),TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,6.0,-3.0)	You selected Activate Enter regular price 4.0 Enter super price 6.0 Enter diesel price -3.0 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4.0 Enter super price 6.0 Enter diesel price -3.0 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Activate(4.0,-6.0,3.0)	You selected Activate Enter regular price 4 Enter super price -6 Enter diesel price 3 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0	You selected Activate Enter regular price 4 Enter super price -6 Enter diesel price 3 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0	Passed

	Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Activate(4.0,-6.0,-3.0)	You selected Activate Enter regular price 4 Enter super price -6 Enter diesel price -3 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price -6 Enter diesel price -3 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Activate(-4.0,6.0,3.0)	You selected Activate Enter regular price -4 Enter super price 6 Enter diesel price 3 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0	You selected Activate Enter regular price -4 Enter super price 6 Enter diesel price 3 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0	Passed

	Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Activate(-4.0,6.0,-3.0)	You selected Activate Enter regular price -4 Enter super price 6 Enter diesel price -3 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price -4 Enter super price 6 Enter diesel price -3 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Activate(-4.0,-6.0,3.0)	You selected Activate Enter regular price -4 Enter super price -6 Enter diesel price 3 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0	You selected Activate Enter regular price -4 Enter super price -6 Enter diesel price 3 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0	Passed

	Total Cost: 0.0 Total Gasoline pumped: 0.0	Total Cost: 0.0 Total Gasoline pumped: 0.0	
Activate(-4.0,-6.0,-3.0)	You selected Activate Enter regular price -4 Enter super price -6 Enter diesel price -3 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price -4 Enter super price -6 Enter diesel price -3 Return Value is0 State is : Entry Values of Variables Rprice: 0.0 Sprice: 0.0 Dprice: 0.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	Passed

	Total Gasoline pumped: 0.0	Total Gasoline pumped: 0.0	
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Reject()	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables	Passed

	Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	

Multiple condition testing is used to cover all possible combinations of complex predicates.

Test #18 - Activate(4.0,6.0,3.0),PayCash(10.0),cancel(),Activate(4.0,6.0,3.0), Activate(4.0,6.0,-3.0), Activate(4.0,-6.0,3.0), Activate(4.0,-6.0,-3.0), Activate(-4.0,6.0,3.0), Activate(-4.0,6.0,-3.0), Activate(-4.0,-6.0,3.0), Activate(-4.0,-6.0,-3.0),TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCash(10.0)	You selected to pay by cash Enter Cash 10 SELECT TYPE OF	You selected to pay by cash Enter Cash 10 SELECT TYPE OF	Passed

	GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Cancel()	You selected cancel TRANSACTION IS CANCELLED. $10.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected cancel TRANSACTION IS CANCELLED. $10.0 OF CASH IS RETURNED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3	Passed

	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Activate(4.0,6.0,-3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price -3 Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price -3 Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Activate(4.0,-6.0,3.0)	You selected Activate Enter regular price 4 Enter super price -6 Enter diesel price 3 Return Value is0	You selected Activate Enter regular price 4 Enter super price -6 Enter diesel price 3 Return Value is0	Passed

	State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Activate(4.0,-6.0,-3.0)	You selected Activate Enter regular price 4 Enter super price -6 Enter diesel price -3 Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price -6 Enter diesel price -3 Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Activate(-4.0,6.0,3.0)	You selected Activate Enter regular price -4 Enter super price 6 Enter diesel price 3 Return Value is0 State is : S0 Values of Variables	You selected Activate Enter regular price -4 Enter super price 6 Enter diesel price 3 Return Value is0 State is : S0 Values of Variables	Passed

	Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Activate(-4.0,6.0,-3.0)	You selected Activate Enter regular price -4 Enter super price 6 Enter diesel price -3 Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price -4 Enter super price 6 Enter diesel price -3 Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Activate(-4.0,-6.0,3.0)	You selected Activate Enter regular price -4 Enter super price -6 Enter diesel price 3 Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0	You selected Activate Enter regular price -4 Enter super price -6 Enter diesel price 3 Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0	Passed

	Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Activate(-4.0,-6.0,-3.0)	You selected Activate Enter regular price -4 Enter super price -6 Enter diesel price -3 Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price -4 Enter super price -6 Enter diesel price -3 Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 10.0 Total Cost: 0.0	Passed

	Total Gasoline pumped: 0.0	Total Gasoline pumped: 0.0	

Multiple condition testing is used to cover all possible combinations of complex predicates.

Test #19 - Activate(4.0,6.0,3.0),PayCash(-10),PayCash(4.5),PayCredit(),Regular(),StartPump(), PumpLiter(),StopPump(),Reciept(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCash(-10)	You selected to pay by cash Enter Cash -10 Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	You selected to pay by cash Enter Cash -10 Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0	Passed

	Total Gasoline pumped: 0.0	Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCash(4.5)	You selected to pay by cash Enter Cash 4.5 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 4.5 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected to pay by cash Enter Cash 4.5 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 4.5 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCredit()	You have selected to pay by credit Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 4.5 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 4.5 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Regular()	You selected Regular type REGULAR IS SELECTED.	You selected Regular type REGULAR IS SELECTED.	Passed

	Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.5 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.5 Total Cost: 0.0 Total Gasoline pumped: 0.0	
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.5 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.5 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PumpLiter()	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 CONTINUE PUMPING Return Value is1 State is : S5 Values of Variables Rprice: 4.0	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 CONTINUE PUMPING Return Value is1 State is : S5 Values of Variables Rprice: 4.0	Passed

	Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.5 Total Cost: 4.0 Total Gasoline pumped: 1.0	Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.5 Total Cost: 4.0 Total Gasoline pumped: 1.0	
StopPump()	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 $0.5 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.5 Total Cost: 4.0 Total Gasoline pumped: 1.0	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 $0.5 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.5 Total Cost: 4.0 Total Gasoline pumped: 1.0	Passed
Reciept()	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0	Passed

	w: 0 Selected Price: 4.0 Cash: 4.5 Total Cost: 4.0 Total Gasoline pumped: 1.0	w: 0 Selected Price: 4.0 Cash: 4.5 Total Cost: 4.0 Total Gasoline pumped: 1.0	
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.5 Total Cost: 4.0 Total Gasoline pumped: 1.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.5 Total Cost: 4.0 Total Gasoline pumped: 1.0	Passed

Multiple condition testing is used to cover all possible combinations of complex predicates.

Test #20 - Activate(4.0,6.0,3.0),Reject(),PayCredit(),Approved(),Diesel(),Cancel(),TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0	

	w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Reject()	Your card has been rejected Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Your card has been rejected Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Approved()	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF	Passed

	GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Diesel()	You selected Diesel type DIESEL IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Diesel type DIESEL IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Cancel()	You selected cancel TRANSACTION IS CANCELLED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1	You selected cancel TRANSACTION IS CANCELLED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1	Passed

	Selected Price: 3.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Selected Price: 3.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Multiple condition testing is used to cover all possible combinations of complex predicates.

Test #21-Activate(4.0,6.0,3.0),Approved(),PayCredit(),Cancel(),Approved(),Super(),Super(), Regular(),Diesel(),Cancel(),TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0	Passed

	Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Approved()	Your card is approved Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Your card is approved Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Cancel()	You selected cancel Return Value is0 State is : S2 Values of Variables	You selected cancel Return Value is0 State is : S2 Values of Variables	Passed

	Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Approved()	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Super()	You selected Super type SUPER IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 6.0 Cash: 0.0	You selected Super type SUPER IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 6.0 Cash: 0.0	Passed

	Total Cost: 0.0 Total Gasoline pumped: 0.0	Total Cost: 0.0 Total Gasoline pumped: 0.0	
Super()	You selected Super type Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Super type Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Regular()	You selected Regular type Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Regular type Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Diesel()	You selected Diesel type Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 6.0	You selected Diesel type Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 6.0	Passed

	Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Cancel()	You selected cancel TRANSACTION IS CANCELLED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected cancel TRANSACTION IS CANCELLED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 6.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Multiple condition testing is used to cover all possible combinations of complex predicates.

Test #22 - Activate(4.0,6.0,3.0),PayCredit(),PayCash(-5), PayCash(5), Approved(), Diesel(), PumpLiter(),StartPump(),PumpLiter(),StartPump() ,StopPump(),TurnOff(), NoReciept(), TurnOff()

Actions	Expected Output	Actual Output	Result

Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCash(-5)	You selected to pay by cash Enter Cash -5 Return Value is0	You selected to pay by cash Enter Cash -5 Return Value is0	Passed

	State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCash(5)	You selected to pay by cash Enter Cash 5 Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected to pay by cash Enter Cash 5 Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Approved()	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0	Passed

	Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Diesel()	You selected Diesel type DIESEL IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Diesel type DIESEL IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PumpLiter()	You selected pump liter Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected pump liter Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0	Passed

	TOTAL CHARGE: $0.0 Return Value is1 State is : S1 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	TOTAL CHARGE: $0.0 Return Value is1 State is : S1 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PumpLiter()	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $3.0 CONTINUE PUMPING Return Value is1 State is : S1 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 3.0 Total Gasoline pumped: 1.0	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $3.0 CONTINUE PUMPING Return Value is1 State is : S1 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 3.0 Total Gasoline pumped: 1.0	Passed
StartPump()	You have selected to start pump Return Value is0 State is : S1 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0	You have selected to start pump Return Value is0 State is : S1 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0	Passed

	Cash: 0.0 Total Cost: 3.0 Total Gasoline pumped: 1.0	Cash: 0.0 Total Cost: 3.0 Total Gasoline pumped: 1.0	
StopPump()	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 1 TOTAL CHARGE: $3.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 3.0 Total Gasoline pumped: 1.0	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 1 TOTAL CHARGE: $3.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 3.0 Total Gasoline pumped: 1.0	Passed
TurnOff()	You selected Turn Off Return Value is0 State is : S6 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 3.0 Total Gasoline pumped: 1.0	You selected Turn Off Return Value is0 State is : S6 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 3.0 Total Gasoline pumped: 1.0	Passed
NoReciept()	You selected No reciept NO RECEIPT IS PRINTED	You selected No reciept NO RECEIPT IS PRINTED	Passed

	Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 3.0 Total Gasoline pumped: 1.0	Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 3.0 Total Gasoline pumped: 1.0	
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 3.0 Total Gasoline pumped: 1.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 3.0 Cash: 0.0 Total Cost: 3.0 Total Gasoline pumped: 1.0	Passed

Multiple condition testing is used to cover all possible combinations of complex predicates.

Test #23 - Activate(4.0,6.0,3.0), PayCash(1.0), Regular(), StartPump(), Pumpliter(), Reciept(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3	Passed

	GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCash(1.0)	You selected to pay by cash Enter Cash 1 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 1.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected to pay by cash Enter Cash 1 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 1.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Regular()	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0	Passed

	Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 1.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 1.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 1.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 1.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Pumpliter()	You selected pump liter PUMP STOPPED. NOT SUFFICIENT FUNDS. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 $1.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0	You selected pump liter PUMP STOPPED. NOT SUFFICIENT FUNDS. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 $1.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0	Passed

	Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 1.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 1.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Reciept()	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 1.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 1.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 1.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 1.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Multiple condition testing is used to cover all possible combinations of complex predicates.

Test #24 - Activate(4.0,6.0,3.0), Receipt(), NoReceipt(), PayCash(7.0), Super(),StartPump(), Pumpliter(), Pumpliter(), NoReciept(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Receipt()	You selected reciept Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected reciept Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
NoReceipt()	You selected No reciept Return Value is0	You selected No reciept Return Value is0	Passed

	State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCash(7.0)	You selected to pay by cash Enter Cash 7 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 7.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected to pay by cash Enter Cash 7 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 7.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Super()	You selected Super type SUPER IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0	You selected Super type SUPER IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0	Passed

	Selected Price: 6.0 Cash: 7.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Selected Price: 6.0 Cash: 7.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 6.0 Cash: 7.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 6.0 Cash: 7.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Pumpliter()	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $6.0 CONTINUE PUMPING Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 6.0 Cash: 7.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $6.0 CONTINUE PUMPING Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 6.0 Cash: 7.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	Passed

Pumpliter()	You selected pump liter PUMP STOPPED. NOT SUFFICIENT FUNDS. # OF LITERS PUMPED: 1 TOTAL CHARGE: $6.0 $1.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 6.0 Cash: 7.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	You selected pump liter PUMP STOPPED. NOT SUFFICIENT FUNDS. # OF LITERS PUMPED: 1 TOTAL CHARGE: $6.0 $1.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 6.0 Cash: 7.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	Passed
NoReciept()	You selected No reciept NO RECEIPT IS PRINTED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 6.0 Cash: 7.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	You selected No reciept NO RECEIPT IS PRINTED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 6.0 Cash: 7.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	Passed

TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 6.0 Cash: 7.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 6.0 Cash: 7.0 Total Cost: 6.0 Total Gasoline pumped: 1.0	Passed

Multiple condition testing is used to cover all possible combinations of complex predicates.

Test #25 - Activate(4.0,6.0,3.0), PayCash(30.0), Regular(), StartPump(), Pumpliter(), StopPump(), Reciept(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,6.0,3.0)	Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCash(30.0)	You selected to pay	You selected to pay	Passed

	by cash Enter Cash 30 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 30.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	by cash Enter Cash 30 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 30.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Regular()	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 30.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 30.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

StartPump()	Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 30.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 30.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PumpLiter()	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 CONTINUE PUMPING Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 30.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 CONTINUE PUMPING Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 30.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	Passed
StopPump()	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 $26.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 $26.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0	Passed

	Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 30.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 30.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	
Reciept()	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 30.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 30.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	Passed
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 30.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 30.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	Passed

Multiple condition testing is used to cover all possible combinations of complex predicates.

Test #26 - Activate(4.0,6.0,3.0), PayCash(4.0), Regular(), StartPump(), Pumpliter(), StopPump(), Reciept(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCash(4.0)	Enter Cash 4 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 4.0 Total Cost: 0.0	Enter Cash 4 SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 4.0 Total Cost: 0.0	Passed

	Total Gasoline pumped: 0.0	Total Gasoline pumped: 0.0	
Regular()	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PumpLiter()	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 CONTINUE PUMPING Return Value is1 State is : S5	You selected pump liter # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 CONTINUE PUMPING Return Value is1 State is : S5	Passed

	Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	
StopPump()	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	Passed
Receipt()	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 1 TOTAL CHARGE: $4.0 Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0	Passed

	Cash: 4.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	Cash: 4.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 4.0 Total Gasoline pumped: 1.0	Passed

Multiple condition testing is used to cover all possible combinations of complex predicates.

Ghost Transtion Testing

Test #27 - Activate(4.0,6.0,3.0), Activate(4.0,6.0,3.0),Reject(), Approved(), Cancel(), Paycash(-5), Regular(), Super(), Diesel(), StartPump(), PumpLiter(), StopPump(), NoReceipt(), Receipt(), PayCredit(),PayCredit(),Activate(4.0,6.0,3.0), Cancel(), Paycash(5), Regular(), Super(), Diesel(), StartPump(), PumpLiter(), StopPump(), NoReceipt(), Receipt(),TurnOff(), Reject(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0	Passed

	Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Activate(4.0,6.0,3.0)	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Reject()	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Approved()	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	Passed

	Total Gasoline pumped: 0.0	Total Gasoline pumped: 0.0	
Cancel()	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Paycash(-5)	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Regular()	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Super()	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0	Passed

	Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Diesel()	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
StartPump()	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PumpLiter()	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

StopPump()	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
NoReceipt()	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Receipt()	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0	Passed

	Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCredit()	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Activate(4.0,6.0,3.0)	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Cancel()	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

	Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Paycash(5)	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Regular()	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Super()	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	Passed

	Total Gasoline pumped: 0.0	Total Gasoline pumped: 0.0	
Diesel()	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
StartPump()	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PumpLiter()	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
StopPump()	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0	Passed

	Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
NoReceipt()	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Receipt()	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Reject()	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Your card has been rejected CREDIT CARD IS REJECTED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

This test case is to cover all ghost transitions for state 0 and state 2. The methods returning the value 0 are default/ghost transitions and methods returning value 1 are used for change of state.

Test #28 - Activate(4.0,6.0,3.0), PayCredit(), Approved(), Activate(4.0,6.0,3.0),Reject(), PayCredit(), Approved(), Paycash(5), StartPump(), PumpLiter(), StopPump(), NoReceipt(), Receipt(),TurnOff(), Regular(),Activate(4.0,6.0,3.0), PayCredit(),Reject(), Approved(), Paycash(5), Regular(), Super(), Diesel(),PumpLiter(), StopPump(), NoReceipt(), Receipt(),TurnOff(),Cancel(), TurnOff()

Actions	Expected Output	Actual Output	Result

Activate(4 , 6 , 3)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Approved()	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF	Passed

	GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Reject()	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0	Passed

	Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
PayCredit()	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Approved()	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Paycash(5)	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	Passed

	Total Gasoline pumped: 0.0	Total Gasoline pumped: 0.0	
StartPump()	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PumpLiter()	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
StopPump()	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
NoReceipt()	Return Value is0	Return Value is0	Passed

	State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Receipt()	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff(),	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Regular()	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4	Passed

	Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCredit()	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Reject()	Return Value is0	Return Value is0	Passed

	State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Approved()	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Paycash(5)	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Regular()	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0	Passed

	Total Cost: 0.0 Total Gasoline pumped: 0.0	Total Cost: 0.0 Total Gasoline pumped: 0.0	
Super()	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Diesel()	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PumpLiter()	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
StopPump()	Return Value is0 State is : S4 Values of Variables Rprice: 4.0	Return Value is0 State is : S4 Values of Variables Rprice: 4.0	Passed

	Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
NoReceipt()	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Receipt()	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Return Value is0 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Cancel()	You selected cancel TRANSACTION IS CANCELLED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected cancel TRANSACTION IS CANCELLED. Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit V alues of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit V alues of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 1 Selected Price: 4.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

This test case is to cover all ghost transitions for state 3 and state 4. The methods returning the value 0 are default/ghost transitions and methods returning value 1 are used for change of state.

Test #29 - Activate(4.0, 6.0, 3.0) , PayCredit(), Approved(), Super(), StartPump(),Activate(4.0,6.0,3.0), PayCredit(),Reject(), Cancel(), Approved(), Paycash(5), Regular(), Super(), Diesel(), StartPump(),NoReceipt(), Receipt(),TurnOff(), StopPump(),Activate(4.0,6.0,3.0), PayCredit(),Reject(), Cancel(), Approved(), Paycash(5), Regular(), Super(), Diesel(), StartPump(),PumpLiter(), StopPump(),TurnOff(),Receipt(), TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0, 6.0, 3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCredit()	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2	You have selected to pay by credit CHECKING CREDIT CARD. Return Value is1 State is : S2	Passed
Approved()	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3	Your card is approved CREDIT CARD APPROVED. SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3	Passed
Super()	You selected Super type SUPER IS SELECTED.	You selected Super type SUPER IS SELECTED.	Passed

	Return Value is1 State is : S4	Return Value is1 State is : S4	
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S1	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 Return Value is1 State is : S1	Passed
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 Return Value is0 State is : S1	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 Return Value is0 State is : S1	Passed
PayCredit()	Return Value is0 State is : S1	Return Value is0 State is : S1	Passed
Reject()	Return Value is0 State is : S1	Return Value is0 State is : S1	Passed
Cancel()	Return Value is0 State is : S1	Return Value is0 State is : S1	Passed
Approved()	Return Value is0 State is : S1	Return Value is0 State is : S1	Passed
Paycash(5)	Return Value is0 State is : S1	Return Value is0 State is : S1	Passed
Regular()	Return Value is0 State is : S1	Return Value is0 State is : S1	Passed
Super()	Return Value is0 State is : S1	Return Value is0 State is : S1	Passed
Diesel()	Return Value is0 State is : S1	Return Value is0 State is : S1	Passed
StartPump()	Return Value is0 State is : S1	Return Value is0 State is : S1	Passed
NoReceipt()	Return Value is0 State is : S1	Return Value is0 State is : S1	Passed
Receipt()	Return Value is0 State is : S1	Return Value is0 State is : S1	Passed

TurnOff()	Return Value is0 State is : S1	Return Value is0 State is : S1	Passed
StopPump()	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 DO YOU WANT A RECEIPT? Return Value is1 State is : S6	Passed
Activate(4.0,6.0,3.0)	Return Value is0 State is : S6	Return Value is0 State is : S6	Passed
PayCredit()	Return Value is0 State is : S6	Return Value is0 State is : S6	Passed
Reject()	Return Value is0 State is : S6	Return Value is0 State is : S6	Passed
Cancel()	Return Value is0 State is : S6	Return Value is0 State is : S6	Passed
Approved()	Return Value is0 State is : S6	Return Value is0 State is : S6	Passed
Paycash(5)	Return Value is0 State is : S6	Return Value is0 State is : S6	Passed
Regular()	Return Value is0 State is : S6	Return Value is0 State is : S6	Passed
Super()	Return Value is0 State is : S6	Return Value is0 State is : S6	Passed
Diesel()	Return Value is0 State is : S6	Return Value is0 State is : S6	Passed
StartPump()	Return Value is0 State is : S6	Return Value is0 State is : S6	Passed
PumpLiter()	Return Value is0 State is : S6	Return Value is0 State is : S6	Passed
StopPump()	Return Value is0 State is : S6	Return Value is0 State is : S6	Passed
TurnOff()	Return Value is0 State is : S6	Return Value is0 State is : S6	Passed
Receipt()	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 0	You selected reciept RECEIPT IS PRINTED: # OF LITERS PUMPED: 0	Passed

	TOTAL CHARGE: $0.0 Return Value is1 State is : S0	TOTAL CHARGE: $0.0 Return Value is1 State is : S0	
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit	Passed

This test case is to cover all ghost transitions for state 1 and state 6. The methods returning the value 0 are default/ghost transitions and methods returning value 1 are used for change of state.

Test#30 - Activate(4.0,6.0,3.0),PayCash(4),Regular(),StartPump(),StartPump(), Regular(),Super(), Diesel(), PayCredit(), PayCash(4), Approved(), Reject(), Cancel(), NoReceipt(), Receipt(),TurnOff(), Activate(2,3,4) StopPump(), NoReceipt(),TurnOff()

Actions	Expected Output	Actual Output	Result
Activate(4.0,6.0,3.0)	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	You selected Activate Enter regular price 4 Enter super price 6 Enter diesel price 3 GAS PUMP IS ON Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 0.0 Total Cost: 0.0	Passed

	Total Gasoline pumped: 0.0	Total Gasoline pumped: 0.0	
PayCash(4)	SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	SELECT TYPE OF GASOLINE: a. REGULAR b. SUPER c. DIESEL Return Value is1 State is : S3 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 0.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Regular()	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Regular type REGULAR IS SELECTED. Return Value is1 State is : S4 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
StartPump()	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED:	You have selected to start pump PUMP IS READY TO DISPOSE # OF LITERS PUMPED:	Passed

	0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	0 TOTAL CHARGE: $0.0 Return Value is1 State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
StartPump()	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Regular()	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

Super()	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Diesel()	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCredit()	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
PayCash(4)	State is : S5	State is : S5	Passed

	Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Approved()	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Reject()	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Cancel()	State is : S5 Values of Variables	State is : S5 Values of Variables	Passed

	Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
NoReceipt()	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
Receipt()	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
TurnOff()	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0	Passed

	Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
Activate(2,3,4)	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	State is : S5 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
StopPump()	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 $4.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected stop pump PUMP STOPPED. # OF LITERS PUMPED: 0 TOTAL CHARGE: $0.0 $4.0 OF CASH IS RETURNED DO YOU WANT A RECEIPT? Return Value is1 State is : S6 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed
NoReceipt()	You selected No reciept NO RECEIPT IS	You selected No reciept NO RECEIPT IS	Passed

	PRINTED Return Value is1 State is : S0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	PRINTED Return Value is1 State is : 0 Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	
TurnOff()	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : eXIT Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	You selected Turn Off GAS PUMP IS TURNED OFF Return Value is1 State is : Exit Values of Variables Rprice: 4.0 Sprice: 6.0 Dprice: 3.0 w: 0 Selected Price: 4.0 Cash: 4.0 Total Cost: 0.0 Total Gasoline pumped: 0.0	Passed

This test case is to cover all ghost transitions for state 5. The methods returning the value 0 are default/ghost transitions and methods returning value 1 are used for change of state

Source code of the *GasPump* class with testing oriented methods

Testing related methods

getPrice()
This would get the price of the type of gasoline which user selects

getTotal()
This would provide us with the total amout spent on buying gas till now

getRegularPrice()
The would get us the gasoline price of Regular Category

getSuperPrice()
The would get us the gasoline price of Super Category

getDeiselPrice()
The would get us the gasoline price of Deisel Category

getNumberOfGallons()
This would tell us the number of gallons which has been pumped

getCash()
This will tell the amount of cash inserted when paid via cash.

getW()
This will tell us weather we paid by cash or credit

GasPump class source code

```
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 float getNumberOfGallons(){
        return L;
}

public float getCash(){
        return cash;
}

public int getW(){
        return w;

}



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

```
            s = 1;

      }
      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;
            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) {
            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");
                    }
                    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;
		}
	}

	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;
		}
	}
}
```

TestDriver for gasPump class

```
import java.io.*;
import java.util.*;
public class TestDriver extends GasPump {

	public static void main(String[] args)throws IOException {
		GasPump g=new GasPump();
		float a,b,d,cash;
		int x;
		//display of my information
		System.out.println("Mallika Kejriwal");
		System.out.println("A20365044");
		System.out.println("CS 525 - Main Project");
		System.out.println("Driver for the GasPump Class");
		Scanner input=new Scanner(System.in);
		int i = 0;
		System.out.println("\n"+"Press enter to continue");
	  System.in.read();
		while(i==0)
		{
		//options for user to select
		System.out.println();
		System.out.println("Select option from below");
		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.NoRecipt");
		System.out.println("14.Reciept");
		System.out.println("15.TurnOff");
		System.out.println("");
		System.out.println("");
		System.out.println("Testing Related Methods");
		System.out.println("16.Show_Price");
		System.out.println("17.Show_Selected_Price");
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        System.out.println("18.Show_State");
        System.out.println("19.Show No of Gallons Pumped");
        System.out.println("20.Get Total");
        System.out.println("21.Payment Method");
        System.out.println("");
        System.out.println("");
        System.out.println("22.Quit Gas Pump Driver");

        x=input.nextInt();
        //switch cases for each input user gives

        switch(x)
        {
        case 1: System.out.println("You selected Activate");
        System.out.println("Enter regular price ");
        a = input.nextFloat();
        System.out.println("Enter super price ");
        b = input.nextFloat();
        System.out.println("Enter diesel price ");
        d = input.nextFloat();
        System.out.println("Return Value is"+g.Activate(a,b,d));
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
        break;

        case 2:System.out.println("You have selected to pay by credit");
        System.out.println("Return Value is"+g.PayCredit());
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
        break;

        case 3:System.out.println("Your card has been rejected");
        System.out.println("Return Value is"+g.Reject());
        break;

        case 4: System.out.println("Your card is approved");
        System.out.println("Return Value is"+g.Approved());
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
        break;

        case 5: System.out.println("You selected to pay by cash");
        System.out.println("Enter Cash");
        cash = input.nextFloat();
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        System.out.println("Return Value is"+g.PayCash(cash));
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
        break;

        case 6: System.out.println("You selected cancel");
        System.out.println("Return Value is"+g.Cancel());
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
        break;

        case 7: System.out.println("You selected Regular type");
        System.out.println("Return Value is"+g.Regular());
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
        break;

        case 8: System.out.println("You selected Super type");
        System.out.println("Return Value is"+g.Super());
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
        break;

        case 9: System.out.println("You selected Diesel type");
        System.out.println("Return Value is"+g.Diesel());
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
        break;

        case 10: System.out.println ("You have selected to start pump");
        System.out.println("Return Value is"+g.StartPump());
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
        break;

        case 11:System.out.println("You selected pump liter");
        System.out.println("Return Value is"+g.PumpLiter());
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
        break;

        case 12:System.out.println("You selected stop pump ");
        System.out.println("Return Value is"+g.StopPump());
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                System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
        System.in.read();
                break;

                case 13: System.out.println("You selected No reciept");
                System.out.println("Return Value is"+g.NoReceipt());
                System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
        System.in.read();
                break;

                case 14: System.out.println("You selected reciept");
                System.out.println("Return Value is"+g.Receipt());
                System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
        System.in.read();
                break;

                case 15: System.out.println("You selected Turn Off");
                System.out.println("Return Value is"+g.TurnOff());
                System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
        System.in.read();
                break;

                //testing oriented method getregularprice , getDieselPrice , getSuperPrice  is
called
                case 16: System.out.println("Following are the prices of Gasoline");
                System.out.println("nRegular Price: "+g.getRegularPrice()+"\nSuper Price:
"+g.getSuperPrice()+"\nDeisel Price: "+g.getDieselPrice());
                System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
        System.in.read();
                break;

                //testing oriented method getPrice is called
                case 17: System.out.println("This is the selected gasoline price");
                System.out.println("The price of selected gasoline is "+g.getPrice());
                System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
        System.in.read();
                break;

                //testing oriented method State is called
                case 18: System.out.println("Get State is called ");
                int dt=g.State();
                if (dt == -2)
                {
                        System.out.println("State is : Exit");
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        }
        else if (dt == -1)
        {
                System.out.println("State is : Entry");
        }
        else
        {
                System.out.println("State is : " +g.State());
        }
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
        break;

        //testing oriented method getNumberOfGallons is called
        case 19: System.out.println("No of gallons pumped is called");
        System.out.println("Number of Gallons pumped: "+g.getNumberOfGallons());
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
        break;

        //testing oriented method getTotal is called
        case 20: System.out.println("Total is called");
        System.out.println("Total is"+g.getTotal());
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
        break;

        //testing oriented method getW is called
        case 21: System.out.println("Pay by cash/credit is called");
        int method = g.getW();
        if (method == 0)
        {
                System.out.println("Payment mode is  : CASH");
        }
        else
        {
                System.out.println("Payment mode is  : CREDIT CARD");
        }
        System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
System.in.read();
break;


        case 22: System.out.println("Your program is now shutting down");
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                i = 1;
                break;


                default: System.out.println("Please enter the valid option");
                System.out.println("\n"+"PRESS ANY KEY TO CONTINUE...");
            System.in.read();
                break;


                }
                 System.out.println("----------------------------------------------------------------");
                }

 }
}
```

Conclusion

I personally feel after the end of this project that the job of tester requires a lot of patience. A little mistake can let a wrong software be out in market and can cause huge loss.
I have successfully presented all the 2 transition sequences and test cases which are presented in test suite have been passed. We generally don't show ghost transitions in our efsm but that doesn't mean they are not suppose to be tested. This project successfully demonstrates all the ghost transitions and tests. All the multiple conditions /branches are successfully identified with justification of why some conditions can never be executed. I have also included a test suit with all the tests being executed step by step and results of variables being displayed.