

## PROJECT REPORT

Submission By:

Manan Sagar

Fall 2022 Software Testing and Analysis (CS-589-01)

CWID: A20496941

[msagar@hawk.iit.edu](mailto:msagar@hawk.iit.edu)

---

### 1. Model-based testing of the GasPump class

2-transition sequences:

State	Incoming	Outgoing
S0	T1, T3, T5, T13, T14, T19	T2, T6, T20
S1	T17, T18	T16, T17
S2	T2	T3, T4
S3	T4, T6	T5, T7, T8, T15
S4	T7, T8, T15	T9, T18, T19
S5	T9, T10	T10, T11, T12
S6	T11, T12, T16	T13, T14

TRANSITION PAIRS:

State	Pairs	Test case
S0	(T1, T2) (T1, T6) (T1, T20) (T3, T2) (T3, T6)	Test #2 Test #1 Test #7 Test #5 Test #5

	(T3, T20) (T5, T2) (T5, T6) (T5, T20) (T13, T2) (T13, T6) (T13, T20) (T14, T2) (T14, T6) (T14, T20) (T19, T2) (T19, T6) (T19, T20)	Test #4 Test #5 Test #1 Test #9 Test #8 Test #10 Test #2 Test #4 Test #1 Test #3 Test #8 Test #8 Test #1
S1	(T17, T16) (T17, T17) (T18, T16) (T18, T17)	Test #2 Test #2 Test #5 Test #2
S2	(T2, T3) (T2, T4)	Test #4 Test #2
S3	(T4, T5) (T4, T7) (T4, T8) (T4, T15) (T6, T5) (T6, T7) (T6, T8) (T6, T15)	Test #9 Test #2 Test #6 Test #5 Test #1 Test #1 Test #1 Test #11
S4	(T7, T9) (T7, T18) (T7, T19) (T8, T9) (T8, T18) (T8, T19) (T15, T9) (T15, T18) (T15, T19)	Test #3 Test #2 Test #1 Test #1 Test #6 Test #8 Test #10 Test #5 Test #8
S5	(T9, T10) (T9, T11) (T9, T12) (T10, T10) (T10, T11) (T10, T12)	Test #3 Test #1 Test #8 Test #11 Test #6 Test #3
S6	(T11, T13) (T11, T14)	Test #10 Test #4

	(T12, T13) (T12, T14) (T16, T13) (T16, T14)	Test #8 Test #3 Test #2 Test #5
--	--	--

## 2. Default/Ghost Transition Testing

### Starting State

Default Transitions:	Test case
Active(a, b, c) [a<=0  b<=0  d<=0] PayCredit() Reject() Approved() Cancel() PayCash(c) Regular() Super() Diesel() StartPump() PumpLiter() StopPump() NoReceipt() Receipt() TurnOff()	Test #12

### State S0

Default Transitions:

Default Transitions:	Test case
Active(a, b, c) Reject() Approved() Cancel() PayCash(c)[c<=0]	Test #13

Regular() Super() Diesel() StartPump() PumpLiter() StopPump() NoReceipt() Receipt()	
---	--

### State S1

Default Transitions:

Default Transitions:	Test case
Active(a, b, c) PayCredit() Reject() Approved() Cancel() PayCash(c) Regular() Super() Diesel() StartPump() NoReceipt() Receipt() TurnOff()	Test #14

### State S2

Default Transitions:

Default Transitions:	Test case
Active(a, b, c) PayCredit() PayCash(c) Cancel() Regular() Super() Diesel() StartPump() PumpLiter() StopPump() NoReceipt() Receipt()	Test #15

TurnOff()	
-----------	--

### State S3

Default Transitions:

Default Transitions:	Test case
Active(a, b, c) PayCredit() Reject() Approved() PayCash(c) StartPump() PumpLiter() StopPump() NoReceipt() Receipt() TurnOff()	Test #16

### State S4

Default Transitions:

Default Transitions:	Test case
Active(a, b, c) PayCredit() Reject() Approved() PayCash(c) Regular() Super() Diesel() PumpLiter() StopPump() NoReceipt() Receipt() TurnOff()	Test #17

### State S5

Default Transitions:

Default Transitions:	Test case
Active(a, b, c) PayCredit() Reject() Approved() Cancel() PayCash(c) Regular() Super() Diesel() StartPump() NoReceipt() Receipt() TurnOff()	Test #18

### State S6

Default Transitions:

Default Transitions:	Test case
Active(a, b, c) PayCredit() Reject() Approved() Cancel() PayCash(c) Regular() Super() Diesel() StartPump() PumpLiter() StopPump() TurnOff()	Test #19

### Ending State

Default Transitions:

Default Transitions:	Test case
Active(a, b, c) PayCredit() Reject() Approved()	Test #20

Cancel() PayCash(c) Regular() Super() Diesel() StartPump() PumpLiter() StopPump() NoReceipt() Receipt() TurnOff()	
---	--

### 3: Multiple-Condition Testing

Activate ()

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

k == -1	a > 0	b > 0	d > 0	Test Case
T	T	T	T	Test#21
T	T	T	F	Test#21
T	T	F	T	Test#21
T	T	F	F	Test#21
T	F	T	T	Test#21
T	F	T	F	Test#21
T	F	F	T	Test#21
T	F	F	F	Test#21
F	T	T	T	Test#21
F	T	T	F	Test#21
F	T	F	T	Test#21
F	T	F	F	Test#21
F	F	T	T	Test#21

F	F	T	F	Test#21
F	F	F	T	Test#21
F	F	F	F	Test#21

PayCredit()

if (k == 0)

k == 0	TEST CASE
T	Test#25
F	Test#26

Reject()

if (k == 2)

k == 2	TEST CASE
T	Test#21
F	Test#26

Cancel()

if ((k == 3) || (k == 4))

k == 3	k==4	TEST CASE
T	T	Non-Executable Case #1
T	F	Test#25
F	T	Test#23



F	F	Test#23
---	---	---------

if (w == 0)

w == 0	TEST CASE
T	Test#23
F	Test#25

Approved()

if (k == 2)

k == 2	TEST CASE
T	Test#25
F	Test#26

PayCash(float c)

if (k == 0)

k == 0	TEST CASE
T	Test#25
F	Test#26

Regular()

if (k == 3)

k == 3	TEST CASE
T	Test#25

F	Test#23
---	---------

Super()

if (k == 3)

k == 3	TEST CASE
T	Test#22
F	Test#26

Midgrade()

if (k == 3)

k == 3	TEST CASE
T	Test#24
F	Test#26

StartPump()

if (k == 4)

k == 4	TEST CASE
T	Test#22
F	Test#26

Pump()

if (k == 5)

k == 5	TEST CASE
T	Test#22
F	Test#26

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

w == 1	cash > price * (L + 1)	w == 0	TEST CASE
T	T	T	Non-Executable Case #2
T	T	F	Non-Executable Case #3
T	F	T	Non-Executable Case #4
T	F	F	Test#24
F	T	T	Test#22
F	T	F	Non-Executable Case #5
F	F	T	Test#22
F	F	F	Non-Executable Case #6

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

w == 0	cash < price * (L + 1))	TEST CASE
T	T	Test#22
T	F	Non-Executable Case #7
F	T	Non-Executable Case #8
F	F	Non-Executable Case #9

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

w == 0	total < cash	TEST CASE
T	T	Test#22
T	F	Test#27
F	T	Non-Executable Case #10
F	F	Non-Executable Case #11

StopPump()

if (k == 5)

k == 5	TEST CASE
T	Test#24
F	Test#26

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

w == 0	total < cash	TEST CASE
T	T	Test#29
T	F	Test#28
F	T	Non-Executable Case #12
F	F	Test#24

NoReceipt()

if (k == 6)

k == 6	TEST CASE
T	Test#22
F	Test#23

Receipt()

if (k == 6)

k == 6	TEST CASE
T	Test#25
F	Test#26

TurnOff()

if (k == 0)

k == 0	TEST CASE
T	Test#21
F	Test#26

## 4: Non-Executable Branches

### Non-Executable Case #1

K cannot be 3 and 4 simultaneously

### Non-Executable Case #2

W cannot be 0 and 1 simultaneously

### Non-Executable Case #3

Here w=1. So payment is done by credit card. At the same time we are comparing  $\text{cash} \geq \text{price} * (L+1)$ . Meaning comparison of cash payment is being done which credit card is taken. Hence this is not possible

### Non-Executable Case #4

W cannot be 0 and 1 simultaneously

### Non-Executable Case #5

Initially  $w$  has been defined as 0 already. So it cannot be neither 0 nor 1

#### **Non-Executable Case #6**

Initially  $w$  has been defined as 0 already. So it cannot be neither 0 nor 1

#### **Non-Executable Case #7**

$w = 0$ ,  $\text{cash} < \text{price}(L+1)$  is false, it means  $\text{cash} \geq \text{price}(L+1)$  is true.  
When this is the case the execution never reaches this line

#### **Non-Executable Case #8**

$w=0$  is false, meaning payment by card  $w=1$  so it will never go into the other condition.

#### **Non-Executable Case #9**

$w=0$  is false, meaning payment by card  $w=1$  so it will never go into the other condition.

#### **Non-Executable Case #10**

$w=0$  is false, meaning payment by card  $w=1$  so it will never go into the other condition.

#### **Non-Executable Case #11**

$w=0$  is false, meaning payment by card  $w=1$  so it will never go into the other condition.

#### **Non-Executable Case #12**

$w=0$  is false, meaning payment by card  $w=1$  so it will never go into the other condition.

## 5. Test Cases

Test case number	Test Case	Transitions
<b>Model-based testing</b>		
Test #1	Activate 2 3 4 PayCash 20 Cancel PayCash 10 Super StartPump StopPump NoReceipt PayCash 10 Regular Cancel TurnOff	T1 ,T6 ,T5 ,T6 ,T8 ,T9 ,T11, T14 T6 ,T7 ,T19 ,T20
Test #2	Activate 3 4 6 PayCredit Approved Regular StartPump Pump Pump StopPump Receipt TurnOff	T1, T2, T4, T7, T18, T17, T17, T16, T13, T20
Test #3	Activate 2 3 4 PayCash 3 Regular StartPump Pump Pump NoReceipt TurnOff	T1 ,T6, T7, T9 ,T10 ,T12 ,T14 , T20
Test #4	Activate 2 3 4 PayCash 20 Regular StartPump StopPump NoReceipt PayCredit Reject TurnOff	T1, T6, T7, T9, T11, T14, T2 ,T3 ,T20
Test #5	Activate 3 4 6 PayCredit Reject PayCash 26 Cancel PayCredit Reject PayCredit Approved Midgrade StartPump StopPump NoReceipt PayCredit Reject TurnOff	T1, T2, T3, T6, T5, T2, T3, T2, T4, T15, T18, T16, T14, T2, T3, T20
Test #6	Activate 3 4 6 PayCash 26 Super StartPump StopPump NoReceipt PayCash 26 Super StartPump Pump StopPump NoReceipt TurnOff	T1, T2, T4, T8, T18, T16, T14, T6, T8, T9, T10, T11, T14, T20
Test #7	Activate 2 3 4 TurnOff	T1,T20
Test #8	Activate 2 3 4 PayCash 20 Cancel PayCredit Approved Super Cancel PayCredit	T1 T6 T5 T2 T4 T8 T19 T2 T4 T15 T19 T6 T7 T9 T12 T13 T2 T3 T20

	Approved Midgrade Cancel PayCash 1 Regular StartPump Pump Receipt PayCredit Reject TurnOff	
Test #9	Activate 2 3 4 PayCredit Reject PayCredit Approved Cancel TurnOff	T1, T2 ,T3, T2 ,T4, T5,T20
Test #10	Activate 3 4 6 Activate 3 4 6 Reject Approved Cancel PayCash -26 Regular Super StartPump Pump StopPump Pump Receipt NoReceipt Midgrade StopPump Pump StartPump Cancel	T1, T6, T15, T9, T11, T13, T2, T3, T6, T7, T9, T12, T13, T6, T5, T20
Test #11	Activate 2 3 4 PayCash 20 Midgrade StartPump Pump Pump StopPump NoReceipt TurnOff	T1 T6 T15 T9 T10 T10 T11 T14 T20

## Default/Ghost Transition Testing

Test #12	Activate -2 3 4 PayCredit Reject Approved Cancel PayCash 20 Regular Super Midgrade StartPump Pump StopPump NoReceipt Receipt TurnOff	
Test #13	Activate 2 3 4 Activate 2 3 4 Reject Approved Cancel Regular Super Midgrade StartPump Pump StopPump NoReceipt Receipt	
Test #14	Activate 2 3 4 PayCredit Approved Regular StartPump Activate 2 3 4 PayCredit Reject Approved Cancel PayCash 20 Regular Super Midgrade StartPump NoReceipt Receipt TurnOff	
Test #15	Activate 2 3 4 PayCredit Activate 2 3 4 PayCredit Cancel PayCash 20 Regular Super Midgrade StartPump Pump StopPump NoReceipt Receipt TurnOff	



Test #16	Activate 2 3 4 PayCredit Approved Activate 2 3 4 PayCredit Reject Approved PayCash 20 StartPump Pump StopPump NoReceipt Receipt TurnOff	
Test #17	Activate 2 3 4 PayCredit Approved Regular Activate 2 3 4 PayCredit Reject Approved PayCash 20 Regular Super Midgrade Pump StopPump NoReceipt Receipt TurnOff	
Test #18	Activate 2 3 4 PayCash 20 Regular StartPump Activate 2 3 4 PayCredit Reject Approved Cancel PayCash 20 Regular Super Midgrade StartPump NoReceipt Receipt TurnOff	
Test #19	Activate 2 3 4 PayCash 20 Regular StartPump StopPump Activate 2 3 4 PayCredit Reject Approved Cancel PayCash 20 Regular Super Midgrade StartPump Pump StopPump TurnOff	
Test #20	Activate 2 3 4 TurnOff Activate 2 3 4 PayCredit Reject Approved Cancel PayCash 20 Regular Super Midgrade StartPump Pump StopPump NoReceipt Receipt TurnOff	
Multiple-Condition Testing		
Test #21	Activate -3 -4 -5 Activate -3 -4 5 Activate -3 4 -5 Activate -3 4 5 Activate 3 -4 -5 Activate 3 -4 5 Activate 3 4 -5 Activate 3 4 5 Activate -3 -4 -5 Activate -3 -4 5 Activate -3 4 -5 Activate -3 4 5 Activate 3 -4 -5 Activate 3 -4 5 Activate 3 4 -5 Activate 3 4 5 PayCredit Reject Approved TurnOff	

Test #22	Activate 2 3 4 PayCash 5 Super StartPump Pump Pump NoReceipt TurnOff	
Test #23	Activate 4 5 6 PayCredit Cancel Regular Approved Super Cancel PayCash 5 Cancel NoReceipt TurnOff	
Test #24	Activate 8 9 10 PayCredit Approved Midgrade StartPump Pump TurnOff StopPump NoReceipt TurnOff	
Test #25	Activate 4 5 6 PayCredit Approved Cancel PayCash 5 Regular Super Midgrade StartPump Pump StopPump Receipt TurnOff	
Test #26	PayCredit Reject Approved Cancel PayCash 20 PayCash -20 Regular Super Midgrade StartPump Pump StopPump NoReceipt Receipt TurnOff	
Test #27	Activate 1 2 3 PayCash 9 Midgrade StartPump Pump Pump Pump Pump Receipt TurnOff	
Test #28	Activate 1 2 3 PayCash 9 Midgrade StartPump Pump Pump Pump StopPump Receipt TurnOff	
Test #29	Activate 3 5 6 PayCash 5 Regular StartPump StopPump NoReceipt TurnOff	

## Results of the Test Suite

Test#1:

Activate 2 3 4

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = 0

PayCash 20

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 20.0

k = 3

Cancel

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 20.0

k = 0

PayCash 10

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 10.0

k = 3

Super

Regular Price = 2.0

Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 10.0  
k = 4

StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 10.0  
k = 5

StopPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 10.0  
k = 6

NoReceipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 10.0  
k = 0

PayCash 10  
Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0

cash = 10.0  
k = 3

Regular

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 10.0  
k = 4

Cancel

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 10.0  
k = 0

TurnOff

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 10.0  
k = -2

Expected Output = Actual Output  
TestResult = Pass

Test#2:  
Activate 3 4 6

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

#### PayCredit

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

#### Approved

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

#### Regular

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 1  
price = 3.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

#### StartPump

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 1  
price = 3.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

#### Pump

Regular Price = 3.0  
Super Price = 4.0

Midgrade Price = 6.0

w = 1  
price = 3.0  
L = 1  
total = 3.0  
cash = 0.0  
k = 5

Pump

Regular Price = 3.0

Super Price = 4.0

Midgrade Price = 6.0

w = 1  
price = 3.0  
L = 2  
total = 6.0  
cash = 0.0  
k = 5

StopPump

Regular Price = 3.0

Super Price = 4.0

Midgrade Price = 6.0

w = 1  
price = 3.0  
L = 2  
total = 6.0  
cash = 0.0  
k = 6

Receipt

Regular Price = 3.0

Super Price = 4.0

Midgrade Price = 6.0

w = 1  
price = 3.0  
L = 2  
total = 6.0  
cash = 0.0  
k = 0

TurnOff

Regular Price = 3.0

Super Price = 4.0

Midgrade Price = 6.0

w = 1  
price = 3.0  
L = 2  
total = 6.0  
cash = 0.0

k = -2

Expected Output = Actual Output

TestResult = Pass

Test#3:

Activate 2 3 4

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = 0

PayCash 3

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 3.0

k = 3

Regular

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 2.0

L = 0

total = 0.0

cash = 3.0

k = 4

StartPump

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 2.0

L = 0

total = 0.0



cash = 3.0  
k = 5

#### Pump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 1  
total = 2.0  
cash = 3.0  
k = 5

#### Pump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 1  
total = 2.0  
cash = 3.0  
k = 6

#### NoReceipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 1  
total = 2.0  
cash = 3.0  
k = 0

#### TurnOff

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 1  
total = 2.0  
cash = 3.0  
k = -2

Expected Output = Actual Output  
TestResult = Pass

Test#4:

Activate 2 3 4

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = 0

PayCash 20

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 20.0

k = 3

Regular

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 2.0

L = 0

total = 0.0

cash = 20.0

k = 4

StartPump

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 2.0

L = 0

total = 0.0

cash = 20.0

k = 5

StopPump

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 2.0

L = 0

total = 0.0

cash = 20.0  
k = 6

#### NoReceipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 0

#### PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 2

#### Reject

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 0

#### TurnOff

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = -2

Expected Output = Actual Output  
TestResult = Pass

Test#5:  
Activate 3 4 6

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCredit

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Reject

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCash 26

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 3

Cancel

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 0

PayCredit

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 2

Reject

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 0

PayCredit

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 2

Approved

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 3

Midgrade

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 1  
price = 6.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 4

StartPump

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 1  
price = 6.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 5

StopPump

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 1  
price = 6.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 6

NoReceipt

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 1  
price = 6.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 0

PayCredit

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 1  
price = 6.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 2

Reject

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 1  
price = 6.0  
L = 0  
total = 0.0

cash = 26.0  
k = 0

TurnOff

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 1  
price = 6.0  
L = 0  
total = 0.0  
cash = 26.0  
k = -2

Expected Output = Actual Output  
TestResult = Pass

Test#6:  
Activate 3 4 6

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCash 26

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 3

Super

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 4

StartPump

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 5

#### StopPump

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 6

#### NoReceipt

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 0

PayCash 26  
Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 3

#### Super

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 4

#### StartPump



Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 0  
total = 0.0  
cash = 26.0  
k = 5

Pump  
Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 1  
total = 4.0  
cash = 26.0  
k = 5

#### StopPump

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 1  
total = 4.0  
cash = 26.0  
k = 6

#### NoReceipt

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 1  
total = 4.0  
cash = 26.0  
k = 0

#### TurnOff

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 1  
total = 4.0  
cash = 26.0  
k = -2

Expected Output = Actual Output  
TestResult = Pass

Test#7:

Activate 2 3 4

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = 0

TurnOff

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = -2

Expected Output = Actual Output  
TestResult = Pass

Test#8:

Activate 2 3 4

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = 0

PayCash 20

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 20.0

k = 3

Cancel

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 0

PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 2

Approved

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 3

Super

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 3.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 4

Cancel

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 3.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 0

PayCredit

Regular Price = 2.0

Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 3.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 2

#### Approved

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 3.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 3

#### Midgrade

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 4.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 4

#### Cancel

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 4.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 0

#### PayCash 1

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 4.0  
L = 0  
total = 0.0  
cash = 1.0  
k = 3

## Regular

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 1.0  
k = 4

## StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 1.0  
k = 5

## Pump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 1.0  
k = 6

## Receipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 1.0  
k = 0

## PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 1.0  
k = 2

Reject

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 1.0  
k = 0

TurnOff

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 1.0  
k = -2

Expected Output = Actual Output  
TestResult = Pass

Test#9:  
Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Reject

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0

w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Approved

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

Cancel

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

TurnOff

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

Expected Output = Actual Output  
TestResult = Pass

Test#10:

Activate 3 4 6

Regular Price = 3.0

Super Price = 4.0

Midgrade Price = 6.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = 0

Activate 3 4 6

Regular Price = 3.0

Super Price = 4.0

Midgrade Price = 6.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = 0

Reject

Regular Price = 3.0

Super Price = 4.0

Midgrade Price = 6.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = 0

Approved

Regular Price = 3.0

Super Price = 4.0

Midgrade Price = 6.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = 0

Cancel

Regular Price = 3.0

Super Price = 4.0

Midgrade Price = 6.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0



k = 0

PayCash -26

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = -26.0  
k = 3

Regular

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = -26.0  
k = 4

Super

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = -26.0  
k = 4

StartPump

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = -26.0  
k = 5

Pump

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0

cash = -26.0  
k = 6

#### StopPump

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = -26.0  
k = 6

#### Pump

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = -26.0  
k = 6

#### Receipt

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = -26.0  
k = 0

#### NoReceipt

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = -26.0  
k = 0

#### Midgrade

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0

cash = -26.0  
k = 0

#### StopPump

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = -26.0  
k = 0

#### Pump

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = -26.0  
k = 0

#### StartPump

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = -26.0  
k = 0

#### Cancel

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = -26.0  
k = 0

Expected Output = Actual Output  
TestResult = Pass

Test#11:  
Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCash 20

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 3

Midgrade

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 4.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 4

StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 4.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

Pump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 4.0  
L = 1  
total = 4.0  
cash = 20.0  
k = 5

Pump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 4.0  
L = 2  
total = 8.0  
cash = 20.0  
k = 5

StopPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 4.0  
L = 2  
total = 8.0  
cash = 20.0  
k = 6

NoReceipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 4.0  
L = 2  
total = 8.0  
cash = 20.0  
k = 0

TurnOff

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 4.0  
L = 2  
total = 8.0  
cash = 20.0  
k = -2

Expected Output = Actual Output  
TestResult = Pass

Test#12:  
Activate -2 3 4

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0

w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

#### PayCredit

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

#### Reject

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

#### Approved

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

#### Cancel

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

#### PayCash 20

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

#### Regular

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

#### Super

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

#### Midgrade

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

#### StartPump

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Pump

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

StopPump

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

NoReceipt

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Receipt

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

TurnOff

Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0



cash = 0.0  
k = -1

Expected Output = Actual Output  
TestResult = Pass

Test#13:  
Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Reject

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Approved

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Cancel

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

#### Regular

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

#### Super

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

#### Midgrade

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

#### StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Pump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

StopPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

NoReceipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Receipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Expected Output = Actual Output  
TestResult = Pass

Test#14:  
Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0

w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

#### PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

#### Approved

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

#### Regular

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

#### StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

#### Activate 2 3 4

Regular Price = 2.0

Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

#### PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

#### Reject

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

#### Approved

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

#### Cancel

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

#### PayCash 20

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

#### Regular

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

#### Super

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

#### Midgrade

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

#### StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

NoReceipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

Receipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

TurnOff

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

Expected Output = Actual Output  
TestResult = Pass

Test#15:  
Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCredit

Regular Price = 2.0

Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Cancel

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

PayCash 20

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Regular



Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

#### Super

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

#### Midgrade

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

#### StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

#### Pump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

StopPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

NoReceipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Receipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

TurnOff

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Expected Output = Actual Output  
TestResult = Pass

Test#16:  
Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0

Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Approved

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

Reject

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

#### Approved

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

#### PayCash 20

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

#### StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

#### Pump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

StopPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

NoReceipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

Receipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

TurnOff

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

Expected Output = Actual Output  
TestResult = Pass

Test#17:  
Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0

price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Approved

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

Regular

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

Reject

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

Approved

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

PayCash 20

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

Regular

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

Super

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

Midgrade

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

Pump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

StopPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

NoReceipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0



cash = 0.0  
k = 4

#### Receipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

#### TurnOff

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 1  
price = 2.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

Expected Output = Actual Output  
TestResult = Pass

Test#18:  
Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

#### PayCash 20

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 3

#### Regular

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 4

#### StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

#### Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

#### PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

#### Reject

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

Approved

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

Cancel

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

PayCash 20

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

Regular

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

Super

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0

cash = 20.0  
k = 5

#### Midgrade

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

#### StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

#### NoReceipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

#### Receipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

#### TurnOff

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0

price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

Expected Output = Actual Output  
TestResult = Pass

Test#19:  
Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCash 20

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 3

Regular

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 4

StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 5

StopPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 6

Activate 2 3 4

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 6

PayCredit

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 6

Reject

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 6

Approved

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0

k = 6

Cancel

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 6

PayCash 20

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 6

Regular

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 6

Super

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 6

Midgrade

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0

L = 0  
total = 0.0  
cash = 20.0  
k = 6

#### StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 6

#### Pump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 6

#### StopPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 6

#### TurnOff

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 2.0  
L = 0  
total = 0.0  
cash = 20.0  
k = 6

Expected Output = Actual Output  
TestResult = Pass



Test#20:

Activate 2 3 4

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = 0

TurnOff

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = -2

Activate 2 3 4

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = -2

PayCredit

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = -2

Reject

Regular Price = 2.0

Super Price = 3.0

Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

Approved  
Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

Cancel

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

PayCash 20

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

Regular

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

Super

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

Midgrade

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

Pump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

StopPump

Regular Price = 2.0

Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

NoReceipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

#### Receipt

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

#### TurnOff

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

Expected Output = Actual Output  
TestResult = Pass

#### Test#21:

Activate -3 -4 -5  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Activate -3 -4 5  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Activate -3 4 -5  
  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Activate -3 4 5  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Activate 3 -4 -5  
  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Activate 3 -4 5  
Regular Price = 0.0

Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Activate 3 4 -5  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Activate 3 4 5  
Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 5.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Activate -3 -4 -5  
  
Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 5.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Activate -3 -4 5  
  
Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 5.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0

k = 0

Activate -3 4 -5

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 5.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Activate -3 4 5

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 5.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Activate 3 -4 -5

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 5.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Activate 3 -4 5

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 5.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Activate 3 4 -5

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 5.0



w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Activate 3 4 5

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 5.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCredit

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 5.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Reject  
Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 5.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

Approved  
Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 5.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

TurnOff

Regular Price = 3.0  
Super Price = 4.0  
Midgrade Price = 5.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -2

Expected Output = Actual Output  
TestResult = Pass

Test#22:

Activate 2 3 4  
Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCash 5  
Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 5.0  
k = 3

Super  
Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 5.0  
k = 4

StartPump

Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 5.0  
k = 5

Pump  
Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 3.0  
L = 1  
total = 3.0  
cash = 5.0  
k = 5

Pump  
Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 3.0  
L = 1  
total = 3.0  
cash = 5.0  
k = 6

NoReceipt  
Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 3.0  
L = 1  
total = 3.0  
cash = 5.0  
k = 0

TurnOff  
Regular Price = 2.0  
Super Price = 3.0  
Midgrade Price = 4.0  
w = 0  
price = 3.0  
L = 1  
total = 3.0  
cash = 5.0

k = -2

Expected Output = Actual Output  
TestResult = Pass

Test#23:

Activate 4 5 6

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCredit  
Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Cancel

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Regular

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0

total = 0.0  
cash = 0.0  
k = 2

Approved  
Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

Super

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 1  
price = 5.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

Cancel

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 1  
price = 5.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCash 5

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 5.0  
L = 0  
total = 0.0  
cash = 5.0

k = 3

Cancel

Regular Price = 4.0

Super Price = 5.0

Midgrade Price = 6.0

w = 0

price = 5.0

L = 0

total = 0.0

cash = 5.0

k = 0

NoReceipt

Regular Price = 4.0

Super Price = 5.0

Midgrade Price = 6.0

w = 0

price = 5.0

L = 0

total = 0.0

cash = 5.0

k = 0

TurnOff

Regular Price = 4.0

Super Price = 5.0

Midgrade Price = 6.0

w = 0

price = 5.0

L = 0

total = 0.0

cash = 5.0

k = -2

Expected Output = Actual Output

TestResult = Pass

Test#24:

Activate 8 9 10

Regular Price = 8.0

Super Price = 9.0

Midgrade Price = 10.0

w = 0

price = 0.0

L = 0

total = 0.0

cash = 0.0

k = 0

## PayCredit

Regular Price = 8.0  
Super Price = 9.0  
Midgrade Price = 10.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

## Approved

Regular Price = 8.0  
Super Price = 9.0  
Midgrade Price = 10.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

## Midgrade

Regular Price = 8.0  
Super Price = 9.0  
Midgrade Price = 10.0  
w = 1  
price = 10.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 4

## StartPump

Regular Price = 8.0  
Super Price = 9.0  
Midgrade Price = 10.0  
w = 1  
price = 10.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 5

## Pump

Regular Price = 8.0  
Super Price = 9.0  
Midgrade Price = 10.0

w = 1  
price = 10.0  
L = 1  
total = 10.0  
cash = 0.0  
k = 5

TurnOff  
Regular Price = 8.0  
Super Price = 9.0  
Midgrade Price = 10.0  
w = 1  
price = 10.0  
L = 1  
total = 10.0  
cash = 0.0  
k = 5

#### StopPump

Regular Price = 8.0  
Super Price = 9.0  
Midgrade Price = 10.0  
w = 1  
price = 10.0  
L = 1  
total = 10.0  
cash = 0.0  
k = 6

NoReceipt  
Regular Price = 8.0  
Super Price = 9.0  
Midgrade Price = 10.0  
w = 1  
price = 10.0  
L = 1  
total = 10.0  
cash = 0.0  
k = 0

TurnOff  
Regular Price = 8.0  
Super Price = 9.0  
Midgrade Price = 10.0  
w = 1  
price = 10.0  
L = 1  
total = 10.0  
cash = 0.0  
k = -2



Expected Output = Actual Output  
TestResult = Pass

Test#25:  
Activate 4 5 6

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCredit  
Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 2

Approved  
Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 3

Cancel

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 1  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCash 5

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 5.0  
k = 3

Regular

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 0  
total = 0.0  
cash = 5.0  
k = 4

Super

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 0  
total = 0.0  
cash = 5.0  
k = 4

Midgrade

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 0  
total = 0.0  
cash = 5.0  
k = 4

StartPump

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0

price = 4.0  
L = 0  
total = 0.0  
cash = 5.0  
k = 5

Pump  
Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 1  
total = 4.0  
cash = 5.0  
k = 5

StopPump

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 1  
total = 4.0  
cash = 5.0  
k = 6

Receipt

Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 1  
total = 4.0  
cash = 5.0  
k = 0

TurnOff  
Regular Price = 4.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 4.0  
L = 1  
total = 4.0

cash = 5.0  
k = -2

Expected Output = Actual Output  
TestResult = Pass

Test#26:  
PayCredit  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Reject  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Approved  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Cancel  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

PayCash 20  
Regular Price = 0.0  
Super Price = 0.0

Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

PayCash -20  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Regular  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Super  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Midgrade  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

StartPump  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0

total = 0.0  
cash = 0.0  
k = -1  
Pump  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

StopPump  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

NoReceipt  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

Receipt  
Regular Price = 0.0  
Super Price = 0.0  
Midgrade Price = 0.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = -1

TurnOff

Expected Output = Actual Output  
TestResult = Pass

Test#27:  
Activate 1 2 3

Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 0.0

L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCash 9  
Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 9.0  
k = 3

Midgrade  
Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 9.0  
k = 4

StartPump  
Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 9.0  
k = 5

Pump

Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 1  
total = 3.0  
cash = 9.0  
k = 5

Pump

Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 2  
total = 6.0  
cash = 9.0  
k = 5

#### Pump

Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 2  
total = 6.0  
cash = 9.0  
k = 5

#### Pump

Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 2  
total = 6.0  
cash = 9.0  
k = 5

#### Receipt

Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 2  
total = 6.0  
cash = 9.0  
k = 5

#### TurnOff

Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 2  
total = 6.0  
cash = 9.0  
k = 5



Expected Output = Actual Output  
TestResult = Pass

Test#28:

Activate 1 2 3  
Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCash 9

Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 9.0  
k = 3

Midgrade  
Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 9.0  
k = 4

StartPump

Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 9.0  
k = 5

Pump  
Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 1  
total = 3.0  
cash = 9.0  
k = 5

Pump  
Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 2  
total = 6.0  
cash = 9.0  
k = 5

Pump  
Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 2  
total = 6.0  
cash = 9.0  
k = 5

#### StopPump

Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 2  
total = 6.0  
cash = 9.0  
k = 6

#### Receipt

Regular Price = 1.0  
Super Price = 2.0

Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 2  
total = 6.0  
cash = 9.0  
k = 0

TurnOff  
Regular Price = 1.0  
Super Price = 2.0  
Midgrade Price = 3.0  
w = 0  
price = 3.0  
L = 2  
total = 6.0  
cash = 9.0  
k = -2

Expected Output = Actual Output  
TestResult = Pass

Test#29:

Activate 3 5 6

Regular Price = 3.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 0.0  
k = 0

PayCash 5

Regular Price = 3.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 0.0  
L = 0  
total = 0.0  
cash = 5.0  
k = 3

Regular

Regular Price = 3.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 5.0  
k = 4

StartPump  
Regular Price = 3.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 5.0  
k = 5

StopPump

Regular Price = 3.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 5.0  
k = 6

NoReceipt  
Regular Price = 3.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0  
price = 3.0  
L = 0  
total = 0.0  
cash = 5.0  
k = 0

TurnOff

Regular Price = 3.0  
Super Price = 5.0  
Midgrade Price = 6.0  
w = 0

price     = 3.0  
L         = 0  
total     = 0.0  
cash      = 5.0  
k         = -2

Expected Output = Actual Output  
TestResult = Pass

## **Conclusion**

A basic test driver has been designed in the form of a java file in this project to test out the GasPump class. The menu has all the operations to execute the states and we can see the value of each variable and state after an operation.

Our role was to test out the code namely the GasPump class and report them using various test cases. The three different types of testing - model based, default transition and multiple condition testing has been performed.

### **Steps for the test driver**

1. Open the command window and navigate to the folder with the java files
2. Re-compile the java files and run  
    commands:
  - A. javac Test.java
  - B. java Test
3. A menu will appear where all the operation are present. After an operation is executed, we check the return value. 1 means it is executed and 0 mean it is not.