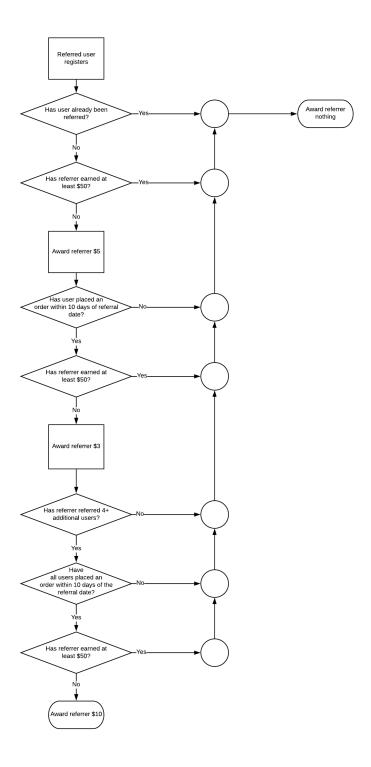
Functional Testing - Decision Tables

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1 Workflow Diagram



2 Decision Table (Before Column Reduction)

Condition	Explanation
$\overline{C_1}$	User is already referred
$\overline{C_2}$	Referrer has earned more than \$50
$\overline{C_3}$	Referred user places an order within 10 days
$\overline{C_4}$	Referrer has referred 4+ additional users and all place an order within 10 days

Effect	Explanation
$\overline{E_1}$	Award referrer nothing
$\overline{E_2}$	Award referrer \$5
$\overline{E_3}$	Award referrer \$3
$\overline{E_4}$	Award referrer \$10

			Rules or Combinations														
Conditions	Values	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
$\overline{C_1}$	Y, N	Y	Y	Y	Y	Y	Y	Y	Y	N	N	N	N	N	N	N	N
C_2	Y, N	Y	Y	Y	Y	N	N	Ν	N	Y	Y	Y	Y	N	N	N	N
C_3	Y, N	Y	Y	Ν	Ν	Y	Y	Ν	N	Y	Y	N	N	Y	Y	N	N
C_4	Y, N	Y	N	Y	Ν	Y	Ν	Y	N	Y	N	Y	N	Y	N	Y	N
Effects																	
E_1		1	1	1	1	1	1	1	1	1	1	1	1				
E_2														1	1	1	1
E_3														2	2		
E_4														3			

3 Decision Table (After Column Reduction)

Condition	Explanation
$\overline{C_1}$	User is already referred
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$\overline{E_4}$	Award referrer \$10

		Rules or Combinations						
Conditions	Values	1	2	3	4	5		
$\overline{C_1}$	Y, N	Y	N	N	N	N		
C_2	Y, N	_	Y	Ν	Ν	N		
C_3	Y, N	_	_	Y	Y	N		
C_4	Y, N	_	_	Y	N			
Effects								
E_1		1	1					
E_2				1	1	1		
E_3				2	2			
E_4				3				
Checksum	16	8	4	1	1	2		

4 Scenarios

4.1 Scenario 1

Suppose:

- User is already referred
- Referrer has not earned at least \$50
- Referred user places an order within 10 days
- Referrer has not referred 4+ additional users

Using the decision table, this scenario falls under rule 1. C_1 is true, and the remaining conditions do not have an impact on the final effect: E_1 .

4.2 Scenario 2

Suppose:

- User is not already referred
- Referrer has earned at least \$50
- Referred user places an order within 10 days
- Referrer has not referred 4+ additional users

Using the decision table, this scenario falls under rule 2. C_1 is false, C_2 is true, and the remaining conditions do not have an impact on the final effect: E_1 .

4.3 Scenario 3

Suppose:

- User is not already referred
- Referrer has not earned at least \$50
- Referred user does not place an order within 10 days
- Referrer has not referred 4+ additional users

Using the decision table, this scenario falls under rule 5. C_1 , C_2 , and C_3 are false, and the remaining condition does not have an impact on the final effect: E_2 .