Variant 2

Equivalence partitioning and Boundary value analysis

To have ability to buy products on web store user should register his login name on web registration page. The field for entering login name should:

contain letters only

to be no shorter than 4 characters

to be no longer than 10 characters.

Login names which do not meet requirements will not be allowed.

Build equivalence classes (partitions) based on given information

Stand Out boundary values

Equivalent partitioning analysis

	Invalid	Valid	Invalid
Class	0 - 3 characters	4 – 10 characters	>= 11 characters
EP	2 characters (ab)	7 characters (abcdefg)	50 characters (abcdfgghjkg….)

Invalid Class (special symbols !@#$%^&*()<>?, numbers, numbers and letters)

#	Condition	Expected result
1	Put value 2 characters (ab) into input field	Error message appears “You have entered an invalid value for the field of login name”
2	Put value 7 characters (abcdefg) into input field	A green check mark appears. Login name entered correctly.
3	Put value 50 characters into input field	Error message appears “You have entered an invalid value for the field of login name”
4	Put value special symbols (!@#$%^&*, numbers)	Error message appears “You have entered an invalid value for the field of login name”

Boundary value analysis

	Invalid	Valid	Invalid
Class	0 - 3 characters	4 – 10 characters	>= 11 characters
BVA	0 and 3 characters	4 and 10 characters	11 characters

#	Condition	Expected result
1	Put value 0 characters (-) into input field	Error message appears “You have entered an invalid value for the field of login name”
2	Put value 3 characters (abc) into input field	Error message appears “You have entered an invalid value for the field of login name”
3	Put value 4 characters (abcd) into input field	A green check mark appears. Login name entered correctly.

4	Put value 10 characters (abcdefghyu) into input field	A green check mark appears. Login name entered correctly.
5	Put value 11 characters into input field	Error message appears “You have entered an invalid value for the field of login name”
6	Put value special symbols (!@#$%^&*, numbers)	Error message appears “You have entered an invalid value for the field of login name”

Decision tables

If you are a new customer opening a credit card account, you will get a 15% discount on all your purchases today. If you are an existing customer and you hold a loyalty card, you get a 10% discount. If you have a coupon, you can get 20% off today (but it can't be used with the 'new customer' discount).

Build decision table based on given information

Cover requirements above by tests (write test cases’ names and objectives) based on decision table analysis

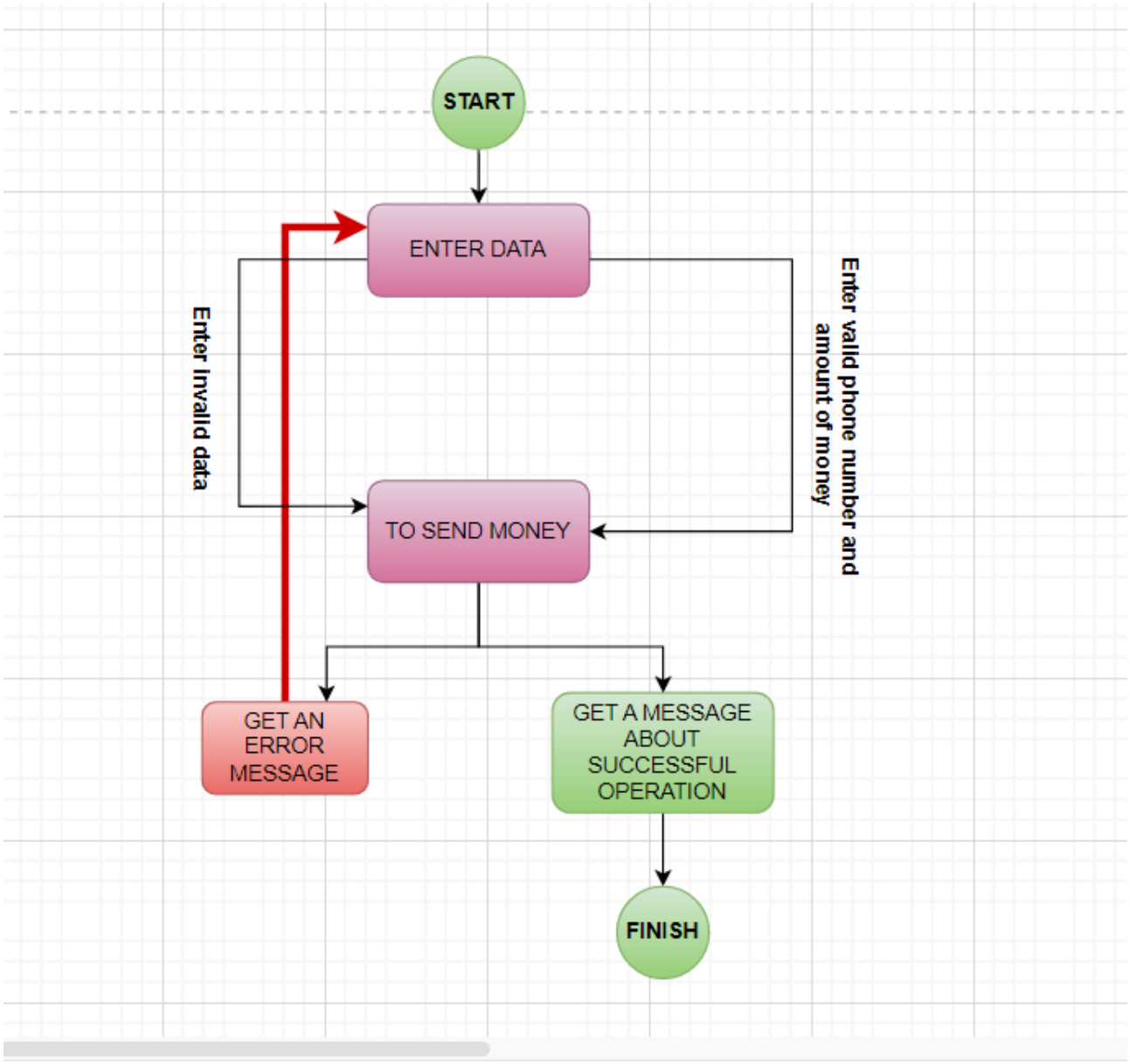
Decision table

Causes (inputs)	R1	R2	R3	R4	R5	R6	R7	R8
New customer?	Y	Y	Y	Y	N	N	N	N
Loyalty card	Y	Y	N	N	Y	Y	N	N
Coupon?	Y	N	Y	N	Y	N	Y	N
	Effects	(outputs)						
Discount (%)	15	15	15	15	30	10	20	0
Error message	+	+	+					

State transition

User tops his friend’s mobile account using sending money option. He enters amount of money he likes to send, types mobile number and click ‘Send’. If entered amount of money is allowed and phone number format is correct, then money will be sent and user will get appropriate message. If sum of replenishment is too low or too high, then user should re-enter it. If phone number format is incorrect, then user should enter correct phone number.

Build state transition diagram based on given information


START
ENTER DATA
Enter Invalid data
Enter valid phone number and amount of money
TO SEND MONEY
GET AN ERROR MESSAGE
GET A MESSAGE ABOUT SUCCESSFUL OPERATION
FINISH