1. 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

	Invalid	Valid	Valid	Invalid	
Class	acc	ghthfhdtjf	Lghi	bjhgfdsadrdhc	
EP	abc	soft	sErve	academyyyyy	

	Condition	Expected result
1.	Put value `abc` into input field	Error message appears "You have entered an incorrect login name. It must be between 4 and 10 characters and contains letter only".
2.	Put value `soft` into input field	User has ability to buy products on web store – or User buy products on web store???
3.	Put value `sErve` into input field	User has ability to buy products on web store
4.	Put value ` academyyyyy` into input field	Error message appears "You have entered an incorrect login name. It must be between 4 and 10 characters and contains letter only".
5.	Put value `-+=#$%^` into input field	Error message appears "You have entered an incorrect login name. It must be between 4 and 10 characters and contains letter only".

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

New customer – 15%

hold a loyalty card-10%

have a coupon-20%

a coupon can't be used with the 'new customer' discount

Causes (inputs)	R1	R2	R3	R4	R5	R6
New customer	Y	Y	N	N	N	N
hold a loyalty card	N	N	Y	Y	N	N
have a coupon	Y	N	Y	N	Y	N
Effects (outputs)						
Discount	20	15	30	10	20	0
Message	+					

Causes (inputs)	R1 R5	R2	R3	R4	R6
New customer	Y/N	Y	N	N	N
hold a loyalty card	N	N	Y	Y	N
have a coupon	Y	N	Y	N	N
Effects (outputs)					
Discount	20	15	30	10	0
Message	+				

	Condition	Outcome
1.	A person who is a new customer buys products and has a coupon	20% discount will be given
2.	A person who is a new customer buys products	15% discount will be given

3.	A person who has a loyalty card buys products and has a coupon	30% discount will be given
4.	A person who has a loyalty card buys products	10% discount will be given
5.	A person who is not a new customer and has not a loyalty card buys products	No discount (0%)

3. 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