HOMEWORK

EQUIVALENCE PARTITIONING:

Example: In a system designed to work out the tax to be paid: An employee has $1000 of salary tax-free. The next $500 is taxed at 10%. The next $4000 is taxed at 22%. Any further amount is taxed by 40%. Salary cannot be larger than $6000.

#	0% tax	10% tax	22% tax	40% tax	Invalid
Class	1000$	1001-1500$	1501-5500$	5501-6000$	6001$
BVA	1000	1001. 1500	1501. 5500	5501 6000	6001

EP & BVA:

#	Test Items	Test data
1	An employee has 1000$ of salary tax-free	1. Any number from 1 to 999(e.g. 555) 2. 1 3. 999
2	The next 500$ is taxed at 10%	1. Any number from 1001 to 1500(e.g. 1312) 2. 1001 3. 1499
3	The next 4000$ is taxed at 22%	1. Any number from 1501 to 5500(e.g. 3900) 2. 5499
4	Any further amount is taxed by 40%	1. Any number from 5501 to 6000(e.g. 5509) 2. 5999
5	Salary <= 6000$	1.Any number > 6001 2.Alphabetic characters 3. Special characters

DECISION TABLE:

Example: You take a loan in a bank. The bank gives you a loan application, where you can enter the amount of the monthly repayment or the number of years you want to take to pay it back (the term of the loan). You should infill only one of the proposed fields. If you enter both, then you will get an error message.

Causes	R1	R2	R3	R4
Am I can get loan in bank?	Y	Y	N	N
Can we write the amount of the monthly repayment?	Y	N	Y	N
Effects				
Message	+	+	+	

#	Condition	Outcome
1	You write only the amount of the monthly re-payment.	You cat get loan in bank
2	You write only the number of years you want to take to pay it back	You can get loan in bank
3	You write all proposed fields	Error message

STATE TRANSITION TESTING:

Example: The customer chooses Arabica coffee from a coffee machine. He selects a specific sort of coffee (in this case Arabica) and enters money. If not enough money is entered, then the machine will ask to enter more. If the amount of money is ok, then the machine will start doing coffee. If Arabica coffee is available, then the customer will get coffee and his change in a minute. If there is no selected sort of coffee, then the customer will get the proper message and his money back.

```
START --> INSERT MONEY
INSERT MONEY --Depositing money--> SELECT COFFEE
SELECT COFFEE --Sort of Arabica--> VERIFIES AVAILABILITY MONEY
VERIFIES AVAILABILITY MONEY --Not enough money--> VERIFIES AVAILABILITY MONEY
VERIFIES AVAILABILITY MONEY --Enough money--> VERIFIES AVAILABILITY OF COFFEE
VERIFIES AVAILABILITY OF COFFEE --Coffee is available--> MAKING COFFEE
VERIFIES AVAILABILITY OF COFFEE --Coffee is not available--> CASHBACK
MAKING COFFEE --Coffee is ready--> GETTING COFFEE
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START → **INSERT MONEY** → *Depositing money* → **SELECT COFFEE** → *Sort of Arabica* → **VERIFIES AVAILABILITY MONEY** (*Not enough money* loop) → *Enough money* → **VERIFIES AVAILABILITY OF COFFEE** → *Coffee is available* → **MAKING COFFEE** → *Coffee is ready* → **GETTING COFFEE**

VERIFIES AVAILABILITY OF COFFEE → *Coffee is not available* → **CASHBACK**