

3.5 Exercises for Lab

3.5.1. Select equivalence partitioning based inputs and make test cases after classifying them in valid and invalid compartments.

3.5.1.1. UI

Mobile Number: (accepts 10 digits)

EQUIVALENCE PARTITIONING		
INVALID	VALID	INVALID

3.5.1.2. Equivalence Partitioning:

Equivalence Partitioning		
Invalid	Valid	Invalid
Mobile number digits<10	Mobile number digits=10	Mobile number digits>10

3.5.1.3. Test Cases:

Test ID	Test case Description	Input Data	Expected Outcome	Actual Outcome	Status
TC_01	To display invalid for mobile number less than 10 digits	29292981	Invalid mobile number		
TC_02	To display valid for mobile number equal to 10 digits	1234567890	Valid mobile number		
TC_03	To display invalid for mobile number greater than 10 digits	098765432123	Invalid mobile number		

3.5.2. Select BVA technique and make test cases after classifying them to valid and invalid categories.

Same as Equivalence Partitioning

3.5.3. Scenario

- ▶ An integer field shall contain values between and including 1 to 15. By applying EP which of the following is a valid collection of equivalence classes for the given scenario.
 - ▶ Less than 1, 1 through 15, more than 15
 - ▶ Negative numbers, 1 through 15, above 15
 - ▶ Less than 1, 1 through 14, more than 15
 - ▶ Less than 0, 1 through 14, 15 and more 3

Answer

- Less than 1, 1 through 15, more than 15

3.5.4. Scenario

- ▶ In a system designed to work out the tax to be paid:
An employee has £4000 of salary tax free. The next £1500 is taxed at 10% The next £28000 is taxed at 22% Any further amount is taxed at 40% Which of these groups of numbers would fall into the same equivalence class?
 - ▶ £4800; £14000; £28000
 - ▶ £5200; £5500; £28000
 - ▶ £28001; £32000; £35000
 - ▶ £5800; £28000; £32000

Answer

- 4800,14000,28000

3.5.5. Scenario

Purchase discount is 0% for up to 500 US\$, 5% is added for each additional 500 US\$ up to 2000 US\$, and 25% is applied for above 2000 US\$. Which test inputs in US\$ would be selected for valid equivalence partitions?

- (a) 250, 700, 1400, 1800, 4000
- (b) 250, 1400, 3000
- (c) -100, 250, 650, 1300, 1700, 2900
- (d) 200, 720, 1600, 1800, 2100

Answer

- -100, 250, 650, 1300, 1700, 2900

3.5.6. Scenario

A tourist of age greater than ...

Answer

Step 1: Causes

C1: Age is over 21.

C2: Driving record is clean.

C3: If tourist is on business.

Step 2: Effects

E1: Supply a rental car without premium charge.

E2: supply a rent car with premium charge.

E3: Car cannot be supplied.

Step 3: Graph

