

Lab # 03
Black Box Testing Techniques
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FA21-BSE-080
Section-A

Exercises for Lab Scenario 1: Select equivalence partitioning based inputs and make test cases after classifying them in valid and invalid compartments.

Mobile Number: (accepts 10 digits)

INVALID (Less than 10 digits)	VALID (Exactly 10 digits)	INVALID (More than 10 digits)	INVALID (Non-numeric characters)
123456789	1234567890	12345678901	1a34567890
12345	0987654321	123456789012	12345six789
6789	5555555555	9876543210987	abcdefghijkl
123	1122334455	123123123123	9999e99999
12	4040404040	0101010101010	1234!67890
6789	5555555555	9876543210987	abcdefghijkl

Scenario 2: Select BVA technique and make test cases after classifying them to valid and invalid categories.

Test Case	Input Value	Category	Expected Result
TC01	999999999	Just below minimum (a)	Fail (Invalid)
TC02	1000000000	Minimum (a)	Pass (Valid)
TC03	1000000001	Just above minimum (a)	Pass (Valid)
TC04	555555555	Nominal value	Pass (Valid)
TC05	9999999998	Just below maximum (b)	Pass (Valid)
TC06	9999999999	Maximum (b)	Pass (Valid)
TC07	10000000000	Just above maximum (b)	Fail (Invalid)

Scenario 3 and 4

Scenario 3:

- ▶ 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

Scenario 4:

- ▶ 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

Explanation:

The correct collection of equivalence classes is:

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

This collection ensures that we cover values less than 1, values between 1 and 15 inclusively, and values greater than 15.

the given amounts into equivalence classes:

1. £4800 falls into the range £4001 to £5500, £14000 falls into £5501 to £33500, £28000 falls into £5501 to £33500.
2. £5200 falls into the range £4001 to £5500, £5500 falls into £4001 to £5500, £28000 falls into £5501 to £33500.
3. £28001 falls into the range £33501 and above, £32000 falls into £5501 to £33500, £35000 falls into £33501 and above.
4. £5800 falls into the range £4001 to £5500, £28000 falls into £5501 to £33500, £32000 falls into £5501 to £33500.

So, the correct group of numbers that fall into the same equivalence class is:

- £5200; £5500; £28000