BLACK BOX TESTING

- In Black Box Testing, the tester tests an application without the knowledge of the internal workings of the application being tested.
- Data is entered into the application & the outcome is compared with the expected results; what the Program does with the Input data or how the Program arrives at the output data is not a concern for the Tester performing Black Box Testing
- BBT is also known as Functional testing which tests the functionality of a Program.
- Since BBT is not concerned with underlying code, then the Techniques can be derived from the requirement documents or design specification.

Advantages of BBT

1. The test is unbiased becoz the designer & tester are independent of each other
2. The tester does not need knowledge of any specific Programing language
3. Test cases can be designed as soon as the specifications are complete

Disadvantages of BBT

1. Test cases are difficult to design
2. Testing every Possible I/P stream is unrealistic.
3. Test can be redundant if the S/W designer has already run a test case

TESTING TECHNIQUE

1. EQUIVALENCE PARTITIONING TEST TECHNIQUE.

- Equivalence Partitioning is a common black box test technique that aims to reduce the number of redundant test cases by eliminating those that generate the same o/p & do not necessarily reveal defects in a Program functionality.

Example :-

- An application accepting integer values ie whole numbers values between -10,000 to +10,000 can be expected to be able to handle negative integers, zero & positive integers.

Therefore, the set of I/P values can be divided into three partitions

From -10,000 to -1, 0 & From 1 to 10,000

- Moreover, it is expected that the system to behave the same for values inside each partition ie the way the system handles -6391 will be the same as -9. Likewise, Positive integers 5 & 3567 will be treated the same by the system.

Example - Technique does not apply to numbers only. Technique can apply to any set of data.

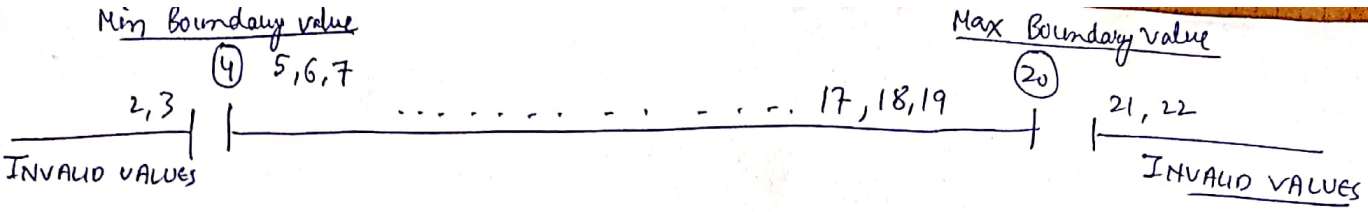
Example - an application that reads in images of only 3 types .jpg, .gif & .Png, then 3 sets of valid equivalent classes can be identified.

- An image with a .jpg extension.
- An image with a .gif extension. (Graphics Interchange Format)
- An image with a .Png extension.

(2) BOUNDARY VALUE ANALYSIS - is a S/w Testing Technique in which tests are designed to include representatives of boundary values in a range. To test an I/P field

Example - Suppose a system accepts nos from 18 to 56

INVALID	valid				Invalid
Min -1	Min	+Min	-Max	Max	Max +1
17	18	19	57	56	57



	PARTITIONS	I/P VALUE	EXPECTED RESULT
-ve TEST	BELOW Min Boundary value	3	FAIL
	Min Boundary value	4	PASS
	ABOVE Min ———	5	PASS
	BELOW Max Bound value	19	PASS
	Max Boundary value	20	PASS
-ve TEST	ABOVE MAX BOUDARY VALUE	21	FAIL