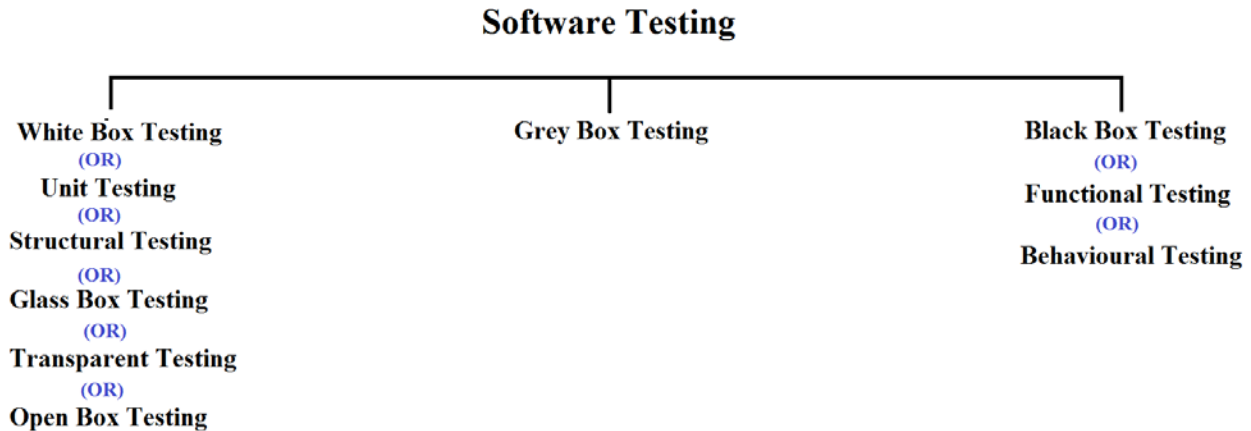# Software Testing

Definition:

- Process of identifying or catching defects is called Software Testing.
- Software testing is verifying the functionality/behaviour of an application against Requirement specification.
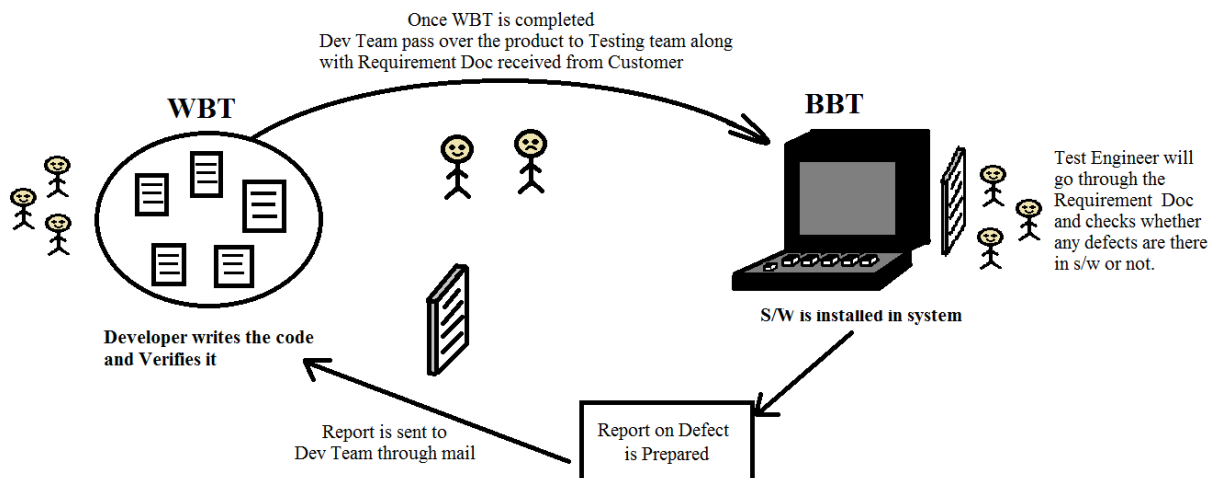- Execution of a program with an intent of catching defects.

Software Testing

White Box Testing
(OR)
Unit Testing
(OR)
Structural Testing
(OR)
Glass Box Testing
(OR)
Transparent Testing
(OR)
Open Box Testing

Grey Box Testing

Black Box Testing
(OR)
Functional Testing
(OR)
Behavioural Testing

Black box testing

1. functional testing – component testing
2. Integration testing – data flow between one feature to other feature
3. system testing – end to end testing

White Box Testing

Testing the Logic, Condition and Looping of the Code is known as White Box Testing.
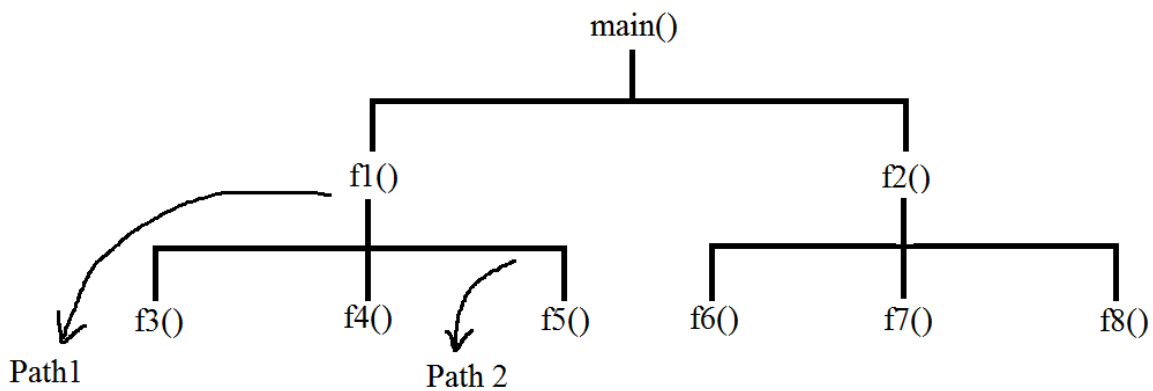

Once WBT is completed
Dev Team pass over the product to Testing team along
with Requirement Doc received from Customer

WBT

BBT

Test Engineer will go through the Requirement Doc and checks whether any defects are there in s/w or not.

S/W is installed in system

Developer writes the code and Verifies it

Report is sent to
Dev Team through mail

Report on Defect
is Prepared

WBT types:
- Path Testing
- Condition Testing
- Loop Testing

Path Testing:

Writes a Flow graph and test all the independent paths

Condition Testing

Test all the logical conditions(say if & else) for both TRUE and FALSE values.

Loop Testing

Test the loop for all the cycles.

NOTE:
- If you catch bugs in WBT, cost of fixing the bugs will be less. If they delay the cost of fixing bugs will be exponentially increases.
- WBT must be done automatically but not manually because cost increases.
- WBT is also done to test the performance of the application.

Difference b/w WBT and BBT

White Box Testing	Black Box Testing
Done by Developers	Done by Test Enggrs
Developers look into Source Code and test the Logic of the Program	Test Enggrs Verify the functionality/Behaviour of the application against Requirement Specification
Should have the knowledge of the internal design of the program	No need to have the knowledge of the internal design of the program
Path, Condition, Loop testing	Functional, Integration, System, Regression, Adhoc, Compatibility, Usability testing-