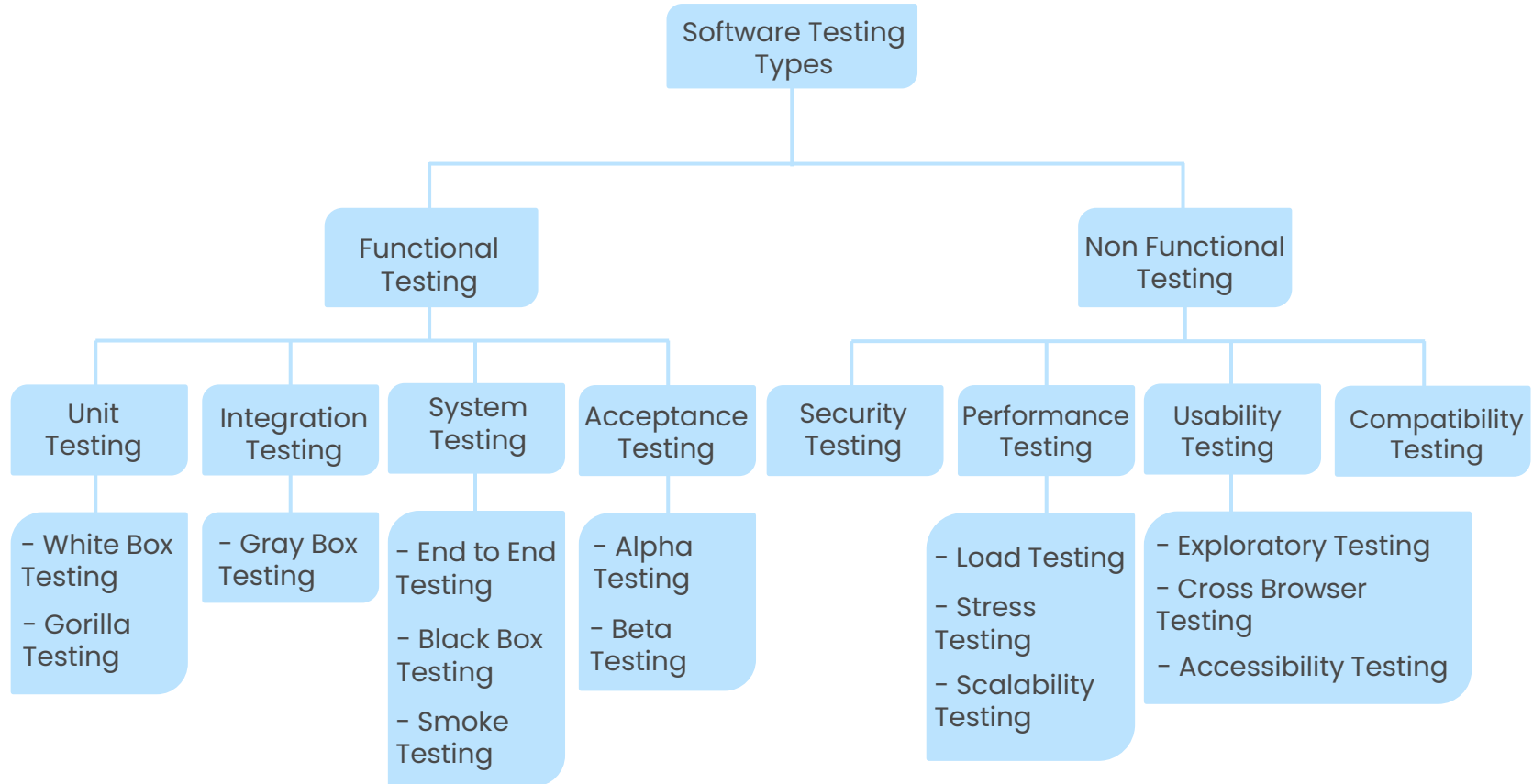
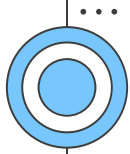


Professional Software Testing & Quality Assurance

Instructor
Parvez Hossain





Unit Testing

Unit testing is a type of software testing which is done on an individual unit or component to test its corrections.

- ❖ Unit testing is done by the **developer** at the application **development phase**.
- ❖ Each unit in unit testing can be viewed as **Method, Function, Procedure**.
- ❖ Unit testing is important because we can **find more defects at unit test level**.

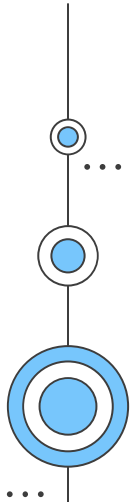
White Box Testing:

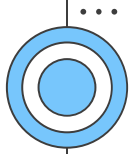
White box testing is a test technique in which the **internal structure or code** of an application is **visible and accessible** to the tester.

Gorilla Testing:

Gorilla testing is test technique in which tester/developer test the module of application **thoroughly in all aspects**.

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Integration Testing

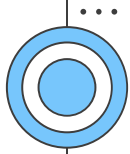
In integration testing, **two or more modules** of an application are **logically grouped** together and **tested as a whole**.

- ❖ Main focus of integration testing is to find the defect on **interface communication** and **data flow among modules**.

Gray Box Testing:

Gray box testing is a **combination of white-box testing and black-box testing**. Testers have **partial knowledge of the internal structure or code** of an application.

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System Testing

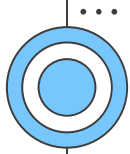
In system testing, tester evaluates the whole system against the specified requirements.

- ❖ performed on a **complete integrated system**

System Testing Process: System Testing is performed in the following steps:

- **Test Environment Setup:** Create testing environment for the better quality testing
- **Create Test Case:** Generate test case for the testing process
- **Create Test Data:** Generate the data that is to be tested
- **Execute Test Case:** After the generation of test case and the test data, test cases are executed
- **Defect Reporting:** Defects in the system are detected
- **Regression Testing:** It is carried out to test the side effects of the testing process
- **Log Defects:** Defects are fixed in this step
- **Retest:** If the test is not successful then again test is performed





System Testing

End-to-End Testing:

End-to-End testing is a software testing technique to test an application flow from start to end. The purpose of this testing is to simulate the real user scenario and validate the system.

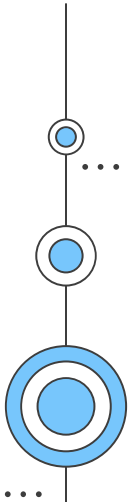
- ❖ It is performed from start to finish under real world scenario like **communication of the application with hardware, network, database, and other applications**.
- ❖ This testing is to **determine various dependencies** of an application as well as ensure that **accurate information is communicated between various system components**.

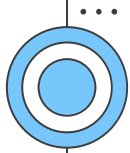
Black Box Testing:

Black box testing is software test technique in which testing is performed without knowing the internal structure, design, or code of a system.

- ❖ Tester should **focus only on the input and output** of test objects.

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System Testing

Smoke Testing:

Smoke testing is performed to verify that basic and critical functionality of the system is working fine.

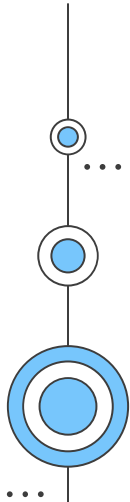
- ❖ It determines whether the **build is stable or not**.
- ❖ Smoke testing is also known as '**Build Verification Testing**' or '**Build Acceptance Testing**'.

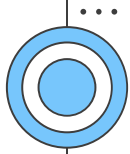
Whenever a new build is provided by the development team, then the software testing team validates the build and **ensure that no major issue exists. Detailed level of testing will be carried out further.**

Sanity Testing:

Sanity testing is performed on a system to verify that **newly added functionality or bug fixes are working fine**. Sanity testing is done on stable build. Sanity testing is subset of regression testing.

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Acceptance Testing

Acceptance testing is a type of testing where client/customer test the software with real time business scenarios.

- ❖ The client accepts the software only when all features and functionalities work as expected.
- ❖ This is the last phase of software testing, after which the software goes into production.
- ❖ This is also called User Acceptance Testing (UAT)

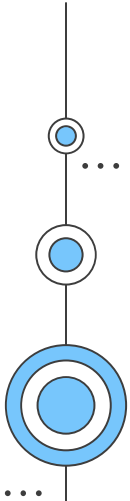
Alpha Testing:

Alpha testing is a type of acceptance testing performed by the team in an organization to find as many defects as possible **before releasing software to customer**.

Beta Testing:

Beta testing is carried out by the clients\customers. It is performed in the Real Environment **before releasing the product to market for actual end user**.

- ❖ Beta testing is typically done by the end users. Usually the beta version of the software **released to a certain number of users in a specific area**.



Thanks!

Do you have any questions?

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