Five types of Testing------->

1. Black Box Testing

Focus: Tests functionality without knowledge of internal code.

How: Inputs and outputs are validated against requirements.

Example: Testing a login form (entering valid/invalid credentials).

Tools: Selenium, Postman.

1. White Box Testing

Focus: Tests internal code structure, logic, and paths.

How: Examines code coverage, loops, and conditional branches.

Example: Verifying all code branches in a payment calculation function.

Tools: JUnit, NUnit.

1. Integration Testing

Focus: Tests interactions between integrated modules/services.

How: Checks data flow, APIs, and component dependencies.

Example: Testing how a "shopping cart" interacts with a "payment gateway."

Tools: TestNG, Postman (API testing).

1. Unit Testing

Focus: Tests individual code units (e.g., functions, classes).

How: Isolates components using mocks/stubs.

Example: Testing a CalculateDiscount() function with various inputs.

Tools: xUnit frameworks (e.g., MSTest, pytest).

1. System Testing

Focus: Tests the entire system against end-to-end requirements.

How: Validates functionality, performance, security, and usability.

Example: Simulating a user’s full journey (registration ---> purchase ---> logout).

Tools: Cypress, JMeter (performance).