STLC

Software Testing Types:

1. Functional Testing

a. Unit Testing

1. White Box Testing - Testing internal structures or workings of an application.
2. Gorilla Testing - Repetitive testing of a module or functionality to ensure stability.

b. Integration Testing

1. Gray Box Testing - Testing with partial knowledge of the internal workings.

c. System Testing

1. End to End Testing - Testing the complete flow of an application from start to finish.
2. Black box Testing - Testing the software without knowledge of the internal workings.
3. Smoke Testing - Preliminary testing to check the basic functionality.
4. Sanity Testing - Testing specific functionalities after minor changes.
5. Happy Path Testing - Testing the software using valid data to ensure it works as expected.
6. Monkey Testing - Random testing without predefined test cases to find unexpected errors.

d. Acceptation Testing

1. Alpha Testing - Internal testing performed by the development team before releasing to external users.

Beta Testing - External testing performed by a select group of end users.

1. OAT (Operational Acceptance Testing) - Ensures the software can be operated in its intended environment, covering operational aspects like backup, restore, and disaster recovery.

2. Non-Functional Testing - evaluates aspects not related to specific behaviors or functions of the software.

1. Security Testing
2. Penetration Testing - Simulating attacks to identify vulnerabilities.
3. Performance Testing
4. Load Testing - Checking the software's ability to handle expected user load.
5. Stress Testing - Evaluating the software's performance under extreme conditions.
6. Soak Testing - Running the software for an extended period to check stability.
7. Volume Testing - Testing with a large volume of data to ensure the software can handle it.
8. Endurance Testing - Similar to soak testing but focuses on the impact of prolonged usage.
9. Scalability Testing - Assessing the software's ability to scale up or down in terms of performance.

c. Usability Testing

1. Exploratory Testing - Simultaneously learning, test design, and execution by testers.
2. Cross Browser Testing - Ensuring the software works across different web browsers.
3. Accessibility Testing - Ensuring the software is usable by people with disabilities.

Compatibility Testing - Ensures the software works across different devices, operating systems, and network environments.