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Domain: Testing

STLC - stands for **Software Testing Life Cycle**. It refers to the series of steps or phases that define the process of software testing. Each phase in the STLC has specific objectives, activities, and deliverables that contribute to the overall quality of the software being tested.

Importance of STLC:

- **Defect Prevention** – Early detection and prevention of defects during the development cycle.
- **Standardized Process** – Ensure a systematic and consistent approach to testing.
- **Stakeholder Confidence** – Builds confidence in the product's quality among stakeholders.
- **Alignment with SDLC** – Integrates seamlessly with the Software Development Life Cycle.

STLC Phases:

1. Requirement Analysis:

Objective: Understand functional and non-functional requirements.

Output: Requirement Traceability Matrix (RTM)

Team Involved: Quality Assurance Team working based on the Software Requirement Specification (SRS)

2. Test Planning:

Objective: Develop test strategy and determine the testing schedule.

Output: Test Plan Document detailing roles, responsibilities, purpose

of testing, risks, and dependencies.

Team Involved: Testing Manager collaborates with the Quality Assurance team.

3. Test Case Development:

Objective: Design detailed test cases and identify test data.

Output: Test Cases and Test Data.

Team Involved: Test Lead or Manager oversees the creation of test suites and combinations, especially for critical modules like login forms.

4. Test Environment Setup

Objective: Prepare and configure the test environment.

Output: Environment Setup Checklist and readiness confirmation.

Team Involved: Testing team.

5. Test Execution

Objective: Execute test cases and compare actual results with expected results.

Tools Used: JIRA, Bugzilla.

Team Involved: Testers and Test Managers for monitoring and assistance.

6. Test Closure

Objective: Finalize testing activities and prepare a summary report.

Output: Test Summary Report and Lessons Learned Document.

Team Involved: Testing Manager and Quality Assurance team.

Key Deliverables in Each Phase:

Requirement Analysis: RTM.

Test Planning: Test Plan Document.

Test Case Development: Test Cases and Test Data.

Test Environment Setup: Environment Setup Checklist.

Test Execution: Defect Reports, screenshots.

Test Closure: Test Summary Report, Lessons Learned Document.