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Domain: Testing

STLC

STLC stands for **Software Testing Life Cycle**. It refers to the systematic process followed during the testing phase of software development. It outlines the various stages and activities involved in testing to ensure that the software meets its required quality standards.

Importance of STLC:

- Defect Prevention.
- Standardized Process.
- Stakeholder confidence.
- Alignment with SDLC.

STLC Phases:

- ✓ Requirement analysis
- ✓ Test Planning
- ✓ Test Case Development
- ✓ Test Environment setup
- ✓ Test Execution
- ✓ Test closure.

Requirement Analysis:

Understanding and reviewing the testing requirements based on the software specifications.

Testers analyze the project requirements to determine what needs to be tested.

Collaborate with stakeholders to clarify ambiguities.

Deliverables:

Requirement Traceability matrix (RTM).

Who are all involved:

Quality Assurance Team.

Planning:

Defining the test strategy, resources, and schedule. It includes deciding on the test deliverables, timelines, tools, and the types of testing to be performed.

Identify risks and dependencies.

Assign roles and responsibilities.

Deliverables:

Test plan document.

Who are all involved:

Test Manager.

Test Case Development:

Design and document test cases.

Prepare test data.

Creating detailed test cases, test scripts, and test data based on the project's requirements and test plans. This stage also involves defining the testing environment.

Deliverables:

Test cases and Test Data.

Who are all involved:

Test Lead / Test Manager.

Test Environment Setup:

Preparing the test environment, including the hardware and software necessary for testing. This could involve configuring servers, databases, or network settings.

Deliverables:

Environment setup checklist.

Readiness confirmation.

Who are all involved:

Test Engineer

Test Execution and Defect Reporting:

Running the test cases and logging the results. Testers identify defects and report them to the development team.

Tracking and documenting defects found during testing. Testers report defects to the developers, who then fix them.

Deliverables:

Test report.

Who are all involved:

Test Engineer, Test Lead, Developers, Project Manager.

Test Closure:

After testing is complete, the testing process is formally closed. Testers prepare test summary reports, document lessons learned, and ensure that all test activities are completed.

Deliverables:

Test summary Report.

Lessons Learned Document.

Who are all involved:

Test Manager, Test Lead, Test Engineer, Business Analyst, Project Manager.

Advantages:

Improved Efficiency

Higher quality

Transparency

Cost effectiveness