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Domain : Testing

Designation : Trainee

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STLC

- ✓ The Software Testing Life Cycle (STLC) is a systematic approach to testing a software application to ensure that it meets the requirements and is free of defects.
- ✓ It is used to ensure that the software is of high quality, reliable, and meets the needs of the end-users.
- ✓ The main goal of the STLC is to identify and document any defects or issues in the software application as early as possible in the development process.
- ✓ There are six phases in STLC that need to be executed to satisfy the customer requirements.

- Requirement Analysis.
- Test Planning.
- Test Case Development.
- Test Environment Setup.
- Test Execution.
- Test Closure.

Requirement Analysis:

- ✓ Requirement Analysis is the first step of the Software Testing Life Cycle (STLC). In this phase the quality assurance team understands the requirements like what is to be tested.
- ✓ If anything is missing or not understandable then the quality assurance team meets with the stakeholders to better understand the detailed knowledge of requirements.

Activities:

- ✓ Reviewing the Software Requirement Specification (SRS) and other related documents.
- ✓ Clarifying the ambiguities with the stakeholders.
- ✓ By the end of this phase, we retrieve Requirement Traceability Matrix (RTM) document.

Test Planning:

- ✓ In this phase, testing plans are defined.
- ✓ The testing manager and the testing team calculated the estimated effort and cost for the testing work.
- ✓ Identifying the test cases that will be executed and the test data that will be used.

Activities:

- ✓ Identifying the testing objective and scope.
- ✓ Identifying the test environment and the resource needed.
- ✓ Assign roles and responsibilities to the testing team.
- ✓ Identifying the test cases that will be executed.
- ✓ Reviewing and approving the test plan.

Test Case Development:

- ✓ The test case development phase gets started once the test planning phase is completed.
- ✓ The testing team also prepares the required test data for the testing. When the test cases are prepared then they are reviewed by the quality assurance team.

Activities:

- ✓ Creating test data and test scenarios that will be used in the test cases.
- ✓ Updating the requirement traceability matrix (RTM) to map requirements to test cases.
- ✓ Identifying the expected results for each test case.

Test Environment Setup:

- ✓ The test environment decides the conditions on which software is tested.
- ✓ In this process, the testing team and testing manager used to choose the environment where it to be tested.

Test Execution:

- ✓ After the test case development and test environment setup test execution phase gets started.
- ✓ In this phase, the testing team starts executing test cases based on prepared test cases in the earlier step.

Activities:

- ✓ The test cases and scripts created in the test design stage are run against the software application to identify any defects or issues.
- ✓ The results of the test execution are analyzed to determine the software's performance and identify any defects or issues.

Test Closure:

- ✓ Test closure is the final stage of the STLC where all testing-related activities are completed and documented.
- ✓ The main objective of the test closure stage is to ensure that all testing-related activities have been completed and that the software is ready for release.

Activities:

- ✓ All defects that were identified during testing are tracked and managed until they are resolved.
- ✓ A report is created that documents all the testing-related activities that took place, including the testing objectives, scope, schedule, and resources used.