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**Task:** STLC

## Overview

An STLC document refers to a Software Testing Life Cycle document. The Software Testing Life Cycle (STLC) is a systematic process for testing software and ensuring that it meets the required standards and works as expected.

It encompasses several phases or stages that guide the testing process, from planning to the final delivery of a quality product.

## 1. Requirement Analysis

- **Purpose:** Understanding and reviewing the requirements and specifications of the software.
- **Activities:**
  - Analyzing the business and technical requirements.
  - Identifying the testable requirements.
  - Involving stakeholders like business analysts and developers to clarify requirements.
- **Output:** Test Strategy, Test Plan, Test Environment Setup, Requirement Traceability Matrix

## 2. Test Planning

- **Purpose:** Creating a detailed test plan based on the requirements.
- **Activities:**
  - Defining the testing scope, objectives, resources, and schedule.
  - Identifying test deliverables (test cases, test scripts, etc.).
  - Assigning responsibilities.
  - Estimating effort and time for testing.
- **Output:** Test Plan document by testing manager.

## 3. Test Design

- **Purpose:** Designing test cases and test scripts.

- **Activities:**
  - Writing test cases based on requirements and user stories.
  - Developing test scripts (for automation testing).
  - Creating data for test execution.
- **Output:** Test Cases, Test Scripts, Test Data.

## 4. Test Environment Setup

- **Purpose:** Setting up the hardware, software, and network configurations needed to conduct testing.
- **Activities:**
  - Preparing the test environment (e.g., servers, databases, network).
  - Installing required software tools and dependencies.
  - Ensuring that the environment mimics production conditions.
- **Output:** Test Environment ready for execution.

## 5. Test Execution

- **Purpose:** Running the designed test cases on the software.
- **Activities:**
  - Executing the test cases manually or through automated scripts.
  - Logging defects or issues found during testing.
  - Verifying the results of tests.
- **Output:** Test Logs, Defect Reports, Test Execution Results.

## 6. Defect Reporting and Tracking

- **Purpose:** Identifying, documenting, and tracking any defects or issues found.
- **Activities:**
  - Reporting defects with detailed information (steps to reproduce, severity, etc.).
  - Tracking the status of reported defects.
  - Re-testing fixed defects.
- **Output:** Defect Logs, Defect Reports.

## 7. Test Closure

- **Purpose:** Closing out the testing phase once all tests are executed and defects are resolved.
- **Activities:**
  - Summarizing the testing activities.
  - Preparing test summary reports.
  - Conducting a review to evaluate the testing process.
- **Output:** Test Summary Report, Metrics Report, Knowledge Transfer to Support.