**Assignment 6 – 08-03-2023**

STLC stands for Software Testing Life Cycle. It is a sequence of activities performed during the testing process to ensure the quality and reliability of software products. The STLC consists of several phases, each with its own set of objectives, tasks, and deliverables. Here's an overview of the typical phases of the Software Testing Life Cycle:

1. **Requirement Analysis**:
   * In this phase, testers analyze the requirements documents to gain an understanding of the software's intended functionality, performance, and behavior.
   * Testers identify testable requirements, define test objectives, and develop a test plan.
2. **Test Planning**:
   * Test planning involves developing a detailed test plan that outlines the approach, scope, resources, and schedule for testing activities.
   * Testers identify test scenarios, prioritize testing efforts, and allocate resources such as test environments, tools, and personnel.
3. **Test Case Development**:
   * Test case development involves creating detailed test cases based on the test scenarios identified during the planning phase.
   * Testers define test inputs, expected outcomes, and execution steps for each test case, ensuring comprehensive coverage of the software's functionality.
4. **Test Environment Setup**:
   * Test environment setup involves configuring the necessary hardware, software, and infrastructure to support testing activities.
   * Testers prepare test environments that replicate the production environment as closely as possible, ensuring accurate testing results.
5. **Test Execution**:
   * Test execution involves running the test cases in the prepared test environments to validate the software against the specified requirements.
   * Testers execute test cases, record test results, and identify defects or discrepancies between actual and expected outcomes.
6. **Defect Reporting and Tracking**:
   * During test execution, testers identify and document defects or issues encountered in the software.
   * Testers report defects using a defect tracking system, providing detailed information such as steps to reproduce, severity, and priority.
   * Defects are tracked throughout the testing process, from identification to resolution, ensuring timely resolution and closure.
7. **Test Reporting**:
   * Test reporting involves summarizing the testing activities, results, and findings in a comprehensive test report.
   * Testers document test execution status, defect metrics, test coverage, and any deviations from the test plan.
   * Test reports provide stakeholders with valuable insights into the quality and readiness of the software for release.
8. **Test Closure**:
   * Test closure marks the end of the testing process and involves evaluating the testing activities, deliverables, and outcomes.
   * Testers review test results, assess test coverage, and verify that all planned testing activities have been completed.
   * Test closure activities include archiving test artifacts, conducting post-mortem meetings, and preparing lessons learned documentation for future projects.