1. **What is STLC?**

* STLC (Software Testing Life Cycle) is a series of systematic activities carried out during the testing process to ensure the quality of a software product. It focuses entirely on the testing phase of the SDLC (Software Development Life Cycle) and involves planning, execution, and closure of testing activities. Here are the key phases of STLC:
* **Requirement Analysis:**
  + Understanding and analysing the testing requirements.
  + Identifying testable aspects of the application.
  + **Deliverables**: Requirement Traceability Matrix (RTM)  
     Automation feasibility report (if applicable).
* **Test Planning:**
  + Defining the scope of testing and the objectives.
  + Estimating resources, timelines, and costs.
  + Creating a test plan that outlines the testing strategy, tools, and deliverables.
  + Identifying risks and preparing mitigation strategies.
  + **Deliverables**: Effort Estimation Document.  
     Test Plan
* **Test Case Design:**
  + Designing detailed test cases, including inputs, steps, and expected results.
  + Creating test scripts if automation is involved.
  + Reviewing and finalizing test cases.
  + **Deliverables**: Test Cases  
     Test Scripts  
     Test Data
* **Test Environment Setup:**
  + Preparing the environment for testing, including hardware, software, and network configurations.
  + Installing and configuring testing tools, if required.
  + Ensuring all dependencies (e.g., databases, APIs) are in place.
  + **Deliverables**: Test Environment Setup Checklist  
     Smoke Test Results
* **Test Execution:**
  + Running test cases as planned.
  + Logging defects when actual results deviate from expected results.
  + Retesting and performing regression testing after fixes.
  + **Deliverables**: Test Execution Report  
     Defect Logs   
     Test Results
* **Test Closure:**
  + Summarizing testing efforts, results, and overall product quality.
  + Preparing test closure reports and sharing lessons learned.
  + Archiving test cases, scripts, and results for future reference.
  + **Deliverables**: Test Closure Report  
     Release Notes

1. **What is the difference between SDLC and STLC?**

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| Aspects | SDLC | STLC |
| End Goal | To develop a fully functional software product. | To ensure the software is of high quality and defect-free. |
| Goal | The process of developing software applications from planning to deployment. | The process of testing the software to ensure it meets requirements and is defect-free. |
| Involvement | Developers, Business Analysts, Project Managers, Testers. | Testers, QA Engineers, Test Managers. |