

The logo features the words "Test Leaf" in a black serif font. The letter "L" in "Leaf" is replaced by a stylized green leaf with a yellow tip. A thin horizontal line is positioned below the text.

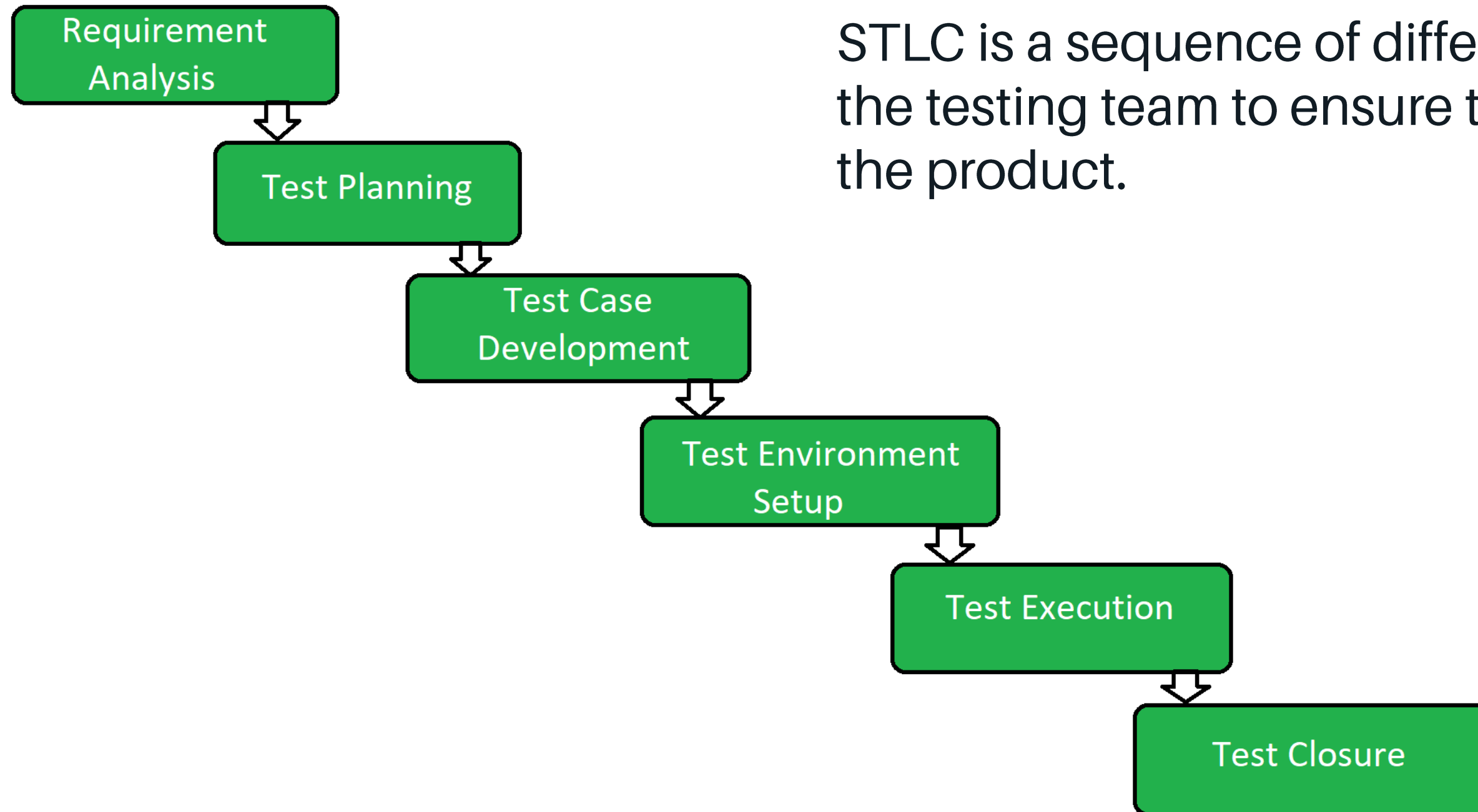
Test Leaf

Always Ahead

STLC - Software Testing Life Cycle

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STLC is a sequence of different activities performed by the testing team to ensure the quality of the software or the product.



Requirements Analysis

- In this phase testing team goes through the Requirement document with both Functional and non-functional details in order to identify the testable requirements.
- In case of any confusion the QA team may setup a meeting with the clients and the stakeholders (Technical Leads, Business Analyst, System Architects and Client etc.) in order to clarify their doubts.
- Once the QA team is clear with the requirements they will document the acceptance Criteria and get it approved by the Customers.

Activities to be done in Requirement analysis phase are given below:

- Analyzing the System Requirement specifications from the testing point of view
- Preparation of RTM that is Requirement Traceability Matrix
- Identifying the testing techniques and testing types
- Prioritizing the feature which need focused testing
- Analyzing the Automation feasibility
- Identifying the details about the testing environment where actual testing will be done

Deliverables (Outcome) of Requirement analysis phase are:

- Requirement Traceability Matrix (RTM)
- Automation feasibility report

Test planning

- This phase starts soon after the completion of the Requirement Analysis phase. In this phase the QA manager or QA Lead will prepare the Test plan and Test strategy documents. As per these documents they will also come up with the testing effort estimations.

Activities to be done in Test Planning phase are given below:

- Estimation of testing effort
- Selection of Testing Approach
- Preparation of Test Plan, Test strategy documents
- Resource planning and assigning roles and responsibility to them
- Selection of Testing tool

Deliverables (Outcome) of Test Planning phase are:

- Test Plan document
- Test Strategy document
- Best suited Testing Approach
- Number of Resources, skill required and their roles and responsibilities
- Testing tool to be used

Test case development

- In this phase the QA team write test cases. They also write scripts for automation if required. Verification of both the test cases and test scripts are done by peers. Creation of Test Data is done in this phase.

Activities to be done in Test Case Development phase are given below:

- Creation of test cases
- Creation of test scripts if required
- Verification of test cases and automation scripts
- Creation of Test Data in testing environment

Deliverables (Outcome) of Test Case Development phase are:

- Test cases
- Test scripts (for automation if required)
- Test Data

Environment setup

- This phase includes the setup or installation process of software and hardware which is required for testing the application. In this phase the integration of the third party application is also carried out if required in the project.
- After setting up the required software and hardware the installation of build is tested. Once the installation of build is successful and complete then the Test Data is generated.
- After the creation of Test data the Smoke testing is executed on the build in order to check whether the basic functionalities are working fine or not. This phase can be done in parallel with the Test Case Development phase.

Activities to be done in Test Environment Setup phase are given below:

- As per the Requirement and Architecture document the list of required software and hardware is prepared
- Setting up of test environment
- Creation of test data
- Installation of build and execution of Smoke testing on it

Deliverables (Outcome) of Test Environment Setup phase are:

- Test Environment setup is ready
- Test Data is created
- Results of Smoke testing

Test Execution

- Before starting the Test Execution phase the Test Environment setup should be ready. In Test Execution phase the test cases are executed in the testing environment.
- While execution of the test cases the QA team may find bugs which will be reported against that test case. This bug is fixed by the developer and is retested by the QA.

Activities to be done in Test Execution phase are given below:

- Execution of Test Cases
- Reporting test results
- Logging defects for the failed test cases
- Verification and retesting of the defect
- Closure of defects

Deliverables (Outcome) of Test Execution phase are:

- Test execution Report
- Updated test cases with results
- Bug Report

Test Cycle Closure

- In order to start the Test Cycle Closure activity the Test Execution phase should be completed. In Test Cycle phase the QA team will meet and discuss about the testing artifacts.
- The whole intent of this discussion is to learn lessons from the bad practices. This will help in future projects.

Activities to be done in Test Cycle Closure phase are given below:

- To evaluate the test completion on the basis of Test Coverage and Software Quality
- Documentation of the learning from the project
- Analyzing the test results to find out the distribution of severe defects
- Test Closure Report preparation

Deliverables (Outcome) of Test Cycle Closure phase are:

- Report of Test Closure

Thank
you!