Objectives

What does SDLC stand for?

A) Software Development Lifecycle

B) Software Deployment Lifecycle

C) System Design and Lifecycle

D) System Development Lifecycle

Answer: A

Which of the following is not a phase of the SDLC?

A) Planning

B) Testing

C) Coding

D) Formatting

Answer: D

Which SDLC phase involves gathering requirements from stakeholders?

A) Planning

B) Analysis

C) Design

D) Implementation

Answer: B

Which SDLC phase involves creating a detailed plan for the software project?

A) Planning

B) Analysis

C) Design

D) Testing

Answer: A

Which SDLC phase involves creating a high-level design of the software solution?

A) Planning

B) Analysis

C) Design

D) Testing

Answer: C

Which SDLC phase involves coding and unit testing?

A) Planning

B) Analysis

C) Implementation

D) Testing

Answer: C

What is the primary goal of the Testing phase in SDLC?

A) Writing code

B) Verifying that the software meets requirements

C) Planning the project

D) Designing the user interface

Answer: B

Which SDLC phase involves fixing defects and making improvements to the software?

A) Planning

B) Analysis

C) Maintenance

D) Deployment

Answer: C

Which SDLC model emphasizes a linear progression of phases from planning to maintenance?

A) Agile

B) Waterfall

C) Scrum

D) Iterative

Answer: B

Which SDLC model allows for flexibility and iterative development?

A) Waterfall

B) Agile

C) Spiral

D) V-Model

Answer: B

Which SDLC model divides the project into small increments with each delivering part of the functionality?

A) Waterfall

B) Agile

C) Spiral

D) RAD (Rapid Application Development)

Answer: B

Which SDLC model involves continuously refining and adjusting the software through successive iterations?

A) Spiral

B) RAD

C) V-Model

D) Waterfall

Answer: A

Which SDLC model is suitable for large projects with complex requirements?

A) RAD

B) Waterfall

C) Agile

D) V-Model

Answer: D

Which SDLC phase involves assessing risks and planning mitigation strategies?

A) Planning

B) Analysis

C) Design

D) Risk Management

Answer: D

Which SDLC phase involves creating prototypes to validate design decisions?

A) Planning

B) Analysis

C) Design

D) Prototyping

Answer: C

Which SDLC phase involves documenting the system requirements?

A) Planning

B) Analysis

C) Design

D) Documentation

Answer: B

Which SDLC phase involves deploying the software to the production environment?

A) Implementation

B) Deployment

C) Testing

D) Maintenance

Answer: B

Which SDLC phase involves evaluating whether the software meets the quality standards and requirements?

A) Implementation

B) Deployment

C) Testing

D) Maintenance

Answer: C

Which SDLC phase involves reviewing and approving the software design before implementation?

A) Planning

B) Analysis

C) Design

D) Validation

Answer: C

Which SDLC phase involves obtaining feedback from users and stakeholders to improve the software?

A) Planning

B) Analysis

C) Design

D) Evaluation

Answer: D

What does STLC stand for?

A) Systematic Testing Life Cycle

B) Software Testing Lifecycle

C) Sequential Testing Life Cycle

D) System Testing Lifecycle

Answer: B

Which phase of STLC involves identifying testable requirements and preparing test cases?

A) Planning

B) Test Design

C) Test Execution

D) Test Closure

Answer: B

Which phase of STLC involves defining test objectives, scope, and strategy?

A) Planning

B) Test Design

C) Test Execution

D) Test Closure

Answer: A

Which phase of STLC involves executing test cases and logging defects?

A) Planning

B) Test Design

C) Test Execution

D) Test Closure

Answer: C

Which phase of STLC involves analyzing test results and deciding whether the product can be released?

A) Planning

B) Test Design

C) Test Execution

D) Test Closure

Answer: C

Which STLC phase focuses on preparing test data and test environments?

A) Planning

B) Test Design

C) Test Execution

D) Test Closure

Answer: A

Which STLC phase involves prioritizing test cases and estimating testing efforts?

A) Planning

B) Test Design

C) Test Execution

D) Test Closure

Answer: A

Which STLC phase involves reviewing and validating test cases for accuracy and completeness?

A) Planning

B) Test Design

C) Test Execution

D) Test Closure

Answer: B

Which STLC phase involves identifying and fixing defects found during testing?

A) Planning

B) Test Design

C) Test Execution

D) Defect Resolution

Answer: D

Which STLC phase involves preparing test reports and documenting lessons learned?

A) Planning

B) Test Design

C) Test Execution

D) Test Closure

Answer: D

Which STLC phase involves ensuring that the software meets specified requirements and works as expected?

A) Planning

B) Test Design

C) Test Execution

D) Validation

Answer: D

Which STLC phase involves creating and maintaining test scripts and automation frameworks?

A) Planning

B) Test Design

C) Test Execution

D) Automation

Answer: D

Which STLC phase involves performing exploratory testing to uncover defects not covered by scripted tests?

A) Planning

B) Test Design

C) Test Execution

D) Exploratory Testing

Answer: D

Which STLC phase involves verifying that the software can be installed and uninstalled without issues?

A) Planning

B) Test Design

C) Installation Testing

D) Test Closure

Answer: C

Which STLC phase involves ensuring that the software works well with other components in the environment?

A) Planning

B) Test Design

C) Compatibility Testing

D) Test Closure

Answer: C

Which STLC phase involves simulating peak loads to evaluate the software's performance under stress?

A) Planning

B) Test Design

C) Performance Testing

D) Test Closure

Answer: C

Which STLC phase involves assessing the software's behavior under varying conditions such as low memory or poor network connectivity?

A) Planning

B) Test Design

C) Stress Testing

D) Test Closure

Answer: C

Which STLC phase involves verifying that the software complies with legal, regulatory, and security standards?

A) Planning

B) Test Design

C) Security Testing

D) Test Closure

Answer: C

Which STLC phase involves measuring how easy it is to use the software and identifying areas for improvement in user experience?

A) Planning

B) Test Design

C) Usability Testing

D) Test Closure

Answer: C

Which STLC phase involves ensuring that the software can be rolled back to a previous version in case of issues with the new release?

A) Planning

B) Test Design

C) Rollback Testing

D) Test Closure

Answer: C

Subjective

* What is the difference between STLC and SDLC?

SDLC(Software Development Life cycle) is a structured process used by development teams to develop applications in a cost-effective & time-efficient manner. It includes software testing phase.

Whereas, STLC (Software Testing Life cycle) is a systematic approach to testing a software application to ensure it meets the customer requirements. STLC is a fundamental part of SDLC, but STLC consists only of the testing phases.

* What are the key phases of STLC and SDLC?

The key phases of SDLC are Requirements gathering & Analysis, Planning, Design & Prototyping, Development, Testing, Deployment, Operations & maintenance.

The key phases of STLC are Requirements analysis, Test planning, Test development, test environment setup, test execution & test closure.

* How do you ensure effective communication between testing and development teams in an SDLC?

Following are some of the ways to ensure effective communication between testing & development teams in an SDLC:

* By scheduling regular meetings among them.
* Using collaboration tools like MS-Teams.
* Cross-Functional teams are beneficial. Example: QA-Dev pair.
* By encouraging sharing of knowledge.
* Resolving conflicts by communication.
* How do you measure the effectiveness of the testing process in an SDLC?

We can measure the effectiveness of the testing process in an SDLC by using various test metrics like

defect detection rate: No of defects found compared to total defects in the system.

test coverage: Lines of code covered by tests per total lines of code.

defect density: No of defects detected per lines of code or module.

test case effectiveness: No of defects detected per test cases run.

Etc.

* How do you handle regression testing in an agile SDLC environment?

Regression testing is the testing process that aims to verify that the existing functionalities still work after any code changes & bug fixes. It can be handled by automating as many regression tests as possible & implementing CI/CD pipelines to run these tests automatically anytime a code change is made.

* What are the different types of testing performed during STLC, and when are they typically conducted?

Different types of testing are:

Unit Testing: Performed by the developers during developmental phase.

Integration Testing: Performed after unit testing, to test interaction between different modules.

System testing: Performed after integration testing, to test the system’s behavior as a whole.

Regression Testing: Performed after System testing.

User Acceptance testing: Performed before the official release.

* How do you prioritize test cases during the test execution phase of STLC?

Test cases can be prioritized based on the following factors:

Risk-based

Business impact

Stakeholders’ requirements

Time & resource constraints

Frequency of use by the end users.