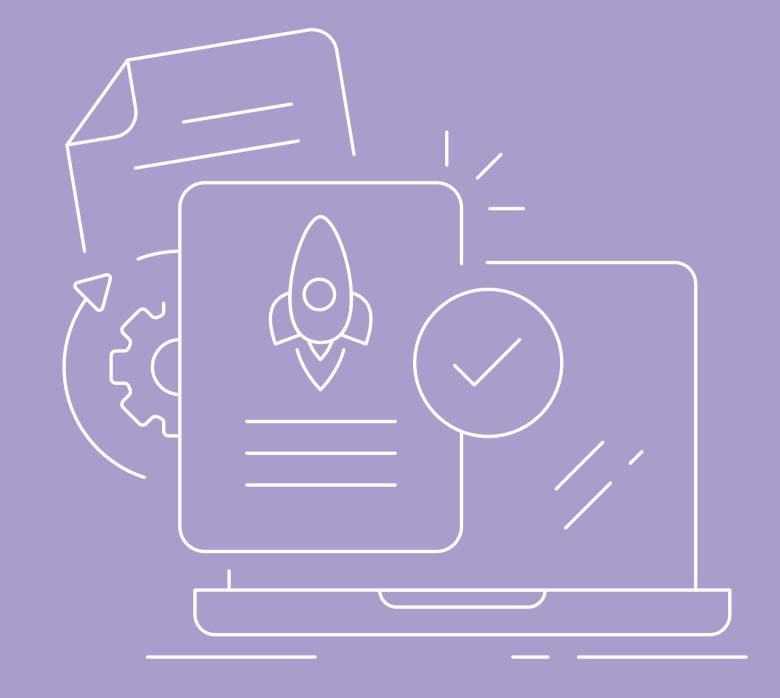# TEST PHASES: A TO Z GUIDE FOR TECH LEADS

Test Phases in Traditional Software Development Life Cycle (SDLC) Models

A traditional model implies linear and sequential development activities. The output of one step is used as the input for the next one. Thus, it's mandatory to complete each phase before beginning a new one. The phases of the testing life cycle must not overlap.

1 REQUIREMENT ANALYSIS
A QA team figures out the testable requirements (the desired way a product would be functioning) and ensures that they work for the project.

2 TEST PLANNING
A QA team defines the release schedule and discusses a general project strategy. A QA manager finalizes the tools and platforms and assigns roles and responsibilities. It all is summarized in a Test Plan.

3 TEST CASE DEVELOPMENT
A QA team prepares and reviews test cases and arranges test data. In particular, the specialists outline different test conditions with input data and expected outcomes.

4 ENVIRONMENT SETUP
Then come the verification and validation of specified requirements in the documentation stage. A client's team can provide an environment, or QA engineers can configure one.

5 TEXT EXECUTION
Software testers run checks and report bugs. If there are serious defects, a build goes back to a development team. After fixing bugs, QA engineers run retests and regression testing.

6 TEST CYCLE CLOSURE
A QA team focuses on measuring results, analyzing the test effort outcomes, evaluating test coverage, quality, costs, and time, and preparing the final report.

QAMadness

Test Phases in Agile SDLC Models

Agile methodologies focus on a team-based approach, promoting software development as a continuous process with changes and updates delivered in portions.

A product team works in sprints that last two to four weeks. During this time, developers are to add a piece of new code, and QA engineers are to test it.

DURING A SPRINT, SOFTWARE TESTERS:

- prepare and run tests for new functionality;

- retest the functionality with recent bug fixes;

- and run regression tests for the business-critical features.

QA Madness

Software Testing Phases in Practice – Collaboration with QA Madness

MANUAL TESTING:

1 **Software analysis & defining the test scope.** We request requirements and/or designs, study them, and ask questions to understand everything about the product. After summarizing this information, we prepare an estimation of the work scope, the time required to complete the testing, and the approximate cost.

2 **Test planning.** QA engineers start working on the strategy, set up a test environment, and prepare test entities.

3 **Testing documentation.** The team writes and finalizes a test plan/strategy, checklists, or test cases, and gets ready to run tests.

4 **Test execution.** Well, this one is the easiest to guess: we run tests.

5 **Reporting and deliverables.** A client receives bug reports or other agreed documentation that wraps up the results of the completed testing activities.

AUTOMATED TESTING:

1 **Preparation stage** – project analysis, selection of an AT strategy and tools, preparation of test artifacts, and approval of communication channels.

2 **Active stage** – test framework creation and scriptwriting, a configuration of test runs, setting up reporting, and test execution.

3 **Support stage** – preparation of "How to" instructions, report review and test result verification, and test maintenance.

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