

Continuous Testing FoundationSM

BLUEPRINT

Testing, an essential portion of DevOps, is responsible for continuous assessment of incremental changes and is part of establishing a culture and environment where building, testing, and releasing software can happen rapidly, frequently, reliably and safely.

CT Concepts

All types of tests, that are mostly automated executed in production-equivalent test environments, assess the results of each stage in the end-to-end pipeline to determine if the artifacts are acceptable or need remediation before promotion.

Test Frameworks and Tools

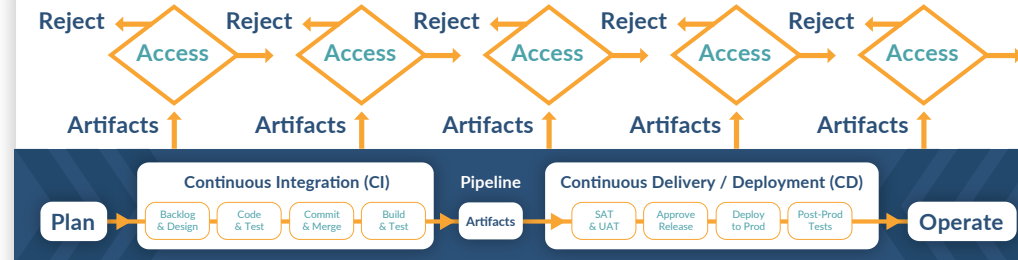
A test framework acts as a “backbone” for integrating and automating tasks including test plans, all types of test tools, test artifact version management, test resources, test data, tests, test schedules, test environment orchestration, test execution, test results, test reports, and test results analysis.

Test Planning

Test Strategies describe test requirements, management policies, resources, topologies, automation goals and coverage methodology and assumptions for a product or service. Test Plans define test cases and priorities for each product module to meet test strategy requirements.

Test Engineering Culture

Quality is everyone’s responsibility. Leaders sponsor, inspire, fund, and motivate cross-functional teams to collaborate, learn, implement, and improve continuous testing practices.



CT Tenets: Shift-Left, Fail Early, Fail Often, Test Fast, Relevance

Test Automation

Automated tests are created per requirements described in test strategies and plans, using a test automation creation strategy such as TDD. Test and test tools are automated, orchestrated, operated and results analyzed through an API by test cases scheduled by a framework.

Test Strategies

Automate and trigger tests at each pipeline stage, orchestrate production-equivalent test environments, shift-left and accelerate testing as early as possible to find customer-relevant verdicts fast and early. Use A/B, Blue-Green and Canary strategies to validate user alternatives.

Benefits

Reduced time to market, improved quality, reduced cost, improved innovation, team satisfaction.

Test Management and Analysis

Manage resources (\$, labor, schedules and flexible scaling) to meet specific CT quality, delivery and response time goals that are determined by key stakeholders.