

Standard Glossary of Terms used in Software Testing

Version 3.6.1

5th October 2022

Advanced Agile Technical Tester (2019) Terms

International Software Testing Qualifications Board



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acceptance criteria

Ref: ISO 24765

The criteria that a component or system must satisfy in order to be accepted by a user, customer, or other authorized entity.

acceptance test-driven development (ATDD)

A collaborative approach to development in which the team and customers are using the customers own domain language to understand their requirements, which forms the basis for testing a component or system.

Agile Manifesto

A statement on the values that underpin Agile software development. The values are: individuals and interactions over processes and tools, working software over comprehensive documentation, customer collaboration over contract negotiation, responding to change over following a plan.

availability

Ref: After ISO 25010

The degree to which a component or system is operational and accessible when required for use.

behavior-driven development (BDD)

A collaborative approach to development in which the team is focusing on delivering expected behavior of a component or system for the customer, which forms the basis for testing.

boundary value analysis

A black-box test technique in which test cases are designed based on boundary values.

capacity

Ref: After ISO 25010

The degree to which the maximum limits of a component or system parameter meet requirements.

coding standard

Ref: ISO 24765

A standard that describes the characteristics of a design or a design description of data or program components.

complexity

See Also: cyclomatic complexity

The degree to which a component or system has a design and/or internal structure that is difficult to understand, maintain and verify.

compliance

Ref: IREB Glossary

Adherence of a work product to standards, conventions or regulations in laws and similar prescriptions.

configuration management

A discipline applying technical and administrative direction and surveillance to identify and document the functional and physical characteristics of a configuration item, control changes to those characteristics, record and report change processing and implementation status, and verify that it complies with specified requirements.

continuous integration

An automated software development procedure that merges, integrates and tests all changes as soon as they are committed.

continuous testing

An approach that involves a process of testing early, testing often, test everywhere, and automate to obtain feedback on the business risks associated with a software release candidate as rapidly as possible.

coverage

Synonyms: test coverage

The degree to which specified coverage items have been determined or have been exercised by a test suite expressed as a percentage.

data-driven testing

A scripting technique that uses data files to contain the test data and expected results needed to execute the test scripts.

decision

Ref: After ISO 29119-1

A type of statement in which a choice between two or more possible outcomes controls which set of actions will result.

defect

Ref: After ISO 24765

Synonyms: bug, fault

An imperfection or deficiency in a work product where it does not meet its requirements or specifications.

driver

Synonyms: test driver

A temporary component or tool that replaces another component and controls or calls a test item in isolation.

efficiency

Ref: IREB Glossary

The degree to which resources are expended in relation to results achieved.

epic

Ref: Agile Alliance

A large user story that cannot be delivered as defined within a single iteration or is large enough that it can be split into smaller user stories.

equivalence partitioning

Ref: After ISO 29119-1

Synonyms: partition testing

A black-box test technique in which test cases are designed to exercise equivalence partitions by using one representative member of each partition.

error

Ref: ISO 24765

Synonyms: mistake

A human action that produces an incorrect result.

error guessing

Ref: ISO 29119-1

A test technique in which tests are derived on the basis of the tester's knowledge of past failures, or general knowledge of failure modes.

expected result

Ref: After ISO 29119-1

Synonyms: predicted outcome, expected outcome

The observable predicted behavior of a test item under specified conditions based on its test basis.

experience-based testing

Testing based on the tester's experience, knowledge and intuition.

exploratory testing

Ref: After ISO 29119-1

An approach to testing whereby the testers dynamically design and execute tests based on their knowledge, exploration of the test item and the results of previous tests.

failed

The status of a test result in which the actual result does not match the expected result.

failure

Ref: After ISO 24765

An event in which a component or system does not perform a required function within specified limits.

finding

A result of an evaluation that identifies some important issue, problem, or opportunity.

heuristic

A generally recognized rule of thumb that helps to achieve a goal.

impact analysis

Ref: After ISO 24765

The identification of all work products affected by a change, including an estimate of the resources needed to accomplish the change.

keyword-driven testing

Synonyms: action word-driven testing

A scripting technique in which test scripts contain high-level keywords and supporting files that contain low-level scripts that implement those keywords

maintainability

Ref: After ISO 25010

The degree to which a component or system can be modified by the intended maintainers.

maintenance

Ref: After ISO 24765

The process of modifying a component or system after delivery to correct defects, improve quality characteristics, or adapt to a changed environment.

metric

A measurement scale and the method used for measurement.

model-based testing (MBT)

Testing based on or involving models.

non-functional testing

Testing performed to evaluate that a component or system complies with non-functional requirements.

passed

The status of a test result in which the actual result matches the expected result.

path

Synonyms: control flow path

A sequence of consecutive edges in a directed graph.

peer review

Ref: After ISO 20246

A review performed by others with the same abilities to create the work product.

precondition

The required state of a test item and its environment prior to test case execution.

priority

The level of (business) importance assigned to an item, e.g., defect.

quality

Ref: After ISO 25010

The degree to which a component or system satisfies the stated and implied needs of its various stakeholders.

reactive testing

Testing that dynamically responds to the behavior of the test object and to test results being obtained.

reliability

Ref: After ISO 25010

The degree to which a component or system performs specified functions under specified conditions for a specified period of time.

requirement

Ref: ISO 24765

A provision that contains criteria to be fulfilled.

retrospective

Ref: After SAFe

Synonyms: project retrospective, retrospective meeting, post-project meeting

A regular event in which team members discuss results, review their practices, and identify ways to improve.

review

A type of static testing in which a work product or process is evaluated by one or more individuals to detect defects or to provide improvements.

reviewer

Ref: After ISO 20246

Synonyms: checker, inspector

A participant in a review who identifies issues in the work product.

risk

A factor that could result in future negative consequences.

risk analysis

The overall process of risk identification and risk assessment.

risk level

Synonyms: risk exposure

The qualitative or quantitative measure of a risk defined by impact and likelihood.

risk-based testing

Ref: After ISO 29119-1

Testing in which the management, selection, prioritization, and use of testing activities and resources are based on corresponding risk types and risk levels.

scalability

Ref: After Gerrard

The degree to which a component or system can be adjusted for changing capacity.

service virtualization

A technique to enable virtual delivery of services which are deployed, accessed and managed remotely.

smoke test

Synonyms: sanity test, intake test, confidence test

A test suite that covers the main functionality of a component or system to determine whether it works properly before planned testing begins.

specification by example (SBE)

See Also: acceptance test-driven development

A development technique in which the specification is defined by examples.

standard

Ref: After CMMI

Formal, possibly mandatory, set of requirements developed and used to prescribe consistent approaches to the way of working or to provide guidelines (e.g., ISO/IEC standards, IEEE standards, and organizational standards).

state transition testing

Synonyms: finite state testing

A black-box test technique in which test cases are designed to exercise elements of a state transition model.

stub

Ref: After ISO 24765

A skeletal or special-purpose implementation of a software component, used to develop or test a component that calls or is otherwise dependent on it. It replaces a called component.

system testing

A test level that focuses on verifying that a system as a whole meets specified requirements.

system under test (SUT)

A type of test object that is a system.

test

A set of one or more test cases.

test approach

The implementation of the test strategy for a specific project.

test automation

The use of software to perform or support test activities.

test automation strategy

A high-level plan to achieve long-term objectives of test automation under given boundary conditions.

test case

A set of preconditions, inputs, actions (where applicable), expected results and postconditions, developed based on test conditions.

test charter

Synonyms: charter

Documentation of the goal or objective for a test session.

test condition

Ref: After ISO 29119-1

Synonyms: test situation, test requirement

A testable aspect of a component or system identified as a basis for testing.

test data

Synonyms: test dataset

Data needed for test execution.

test design

The activity that derives and specifies test cases from test conditions.

test environment

Ref: ISO 24765

Synonyms: test bed, test rig

An environment containing hardware, instrumentation, simulators, software tools, and other support elements needed to conduct a test.

test execution

The activity that runs a test on a component or system producing actual results.

test execution tool

A test tool that executes tests against a designated test item and evaluates the outcomes against expected results and postconditions.

test implementation

The activity that prepares the testware needed for test execution based on test analysis and design.

test level

Synonyms: test stage

A specific instantiation of a test process.

test log

Ref: ISO 24765

Synonyms: test record, test run log

A chronological record of relevant details about the execution of tests.

test management

Ref: ISO 29119-1

The planning, scheduling, estimating, monitoring, reporting, control and completion of test activities.

test management tool

A tool that supports test management.

test manager

The person responsible for project management of testing activities, resources, and evaluation of a test object.

test object

The work product to be tested.

test objective

The reason or purpose of testing.

test procedure

Ref: ISO 29119-1

A sequence of test cases in execution order, and any associated actions that may be required to set up the initial preconditions and any wrap up activities post execution.

test process

The set of interrelated activities comprising of test planning, test monitoring and control, test analysis, test design, test implementation, test execution, and test completion.

test result

Synonyms: outcome, test outcome, result

The consequence/outcome of the execution of a test.

test strategy

Synonyms: organizational test strategy

Documentation aligned with the test policy that describes the generic requirements for testing and details how to perform testing within an organization

test suite

Synonyms: test set, test case suite

A set of test scripts or test procedures to be executed in a specific test run.

test technique

Synonyms: test design technique

A procedure used to define test conditions, design test cases, and specify test data.

test-driven development (TDD)

A software development technique in which the test cases are developed, and often automated, and then the software is developed incrementally to pass those test cases.

tester

A person who performs testing.

testing

The process consisting of all lifecycle activities, both static and dynamic, concerned with planning, preparation and evaluation of a component or system and related work products to determine that they satisfy specified requirements, to demonstrate that they are fit for purpose and to detect defects.

unit test framework

Ref: Graham

A tool that provides an environment for unit or component testing in which a component can be tested in isolation or with suitable stubs and drivers. It also provides other support for the developer, such as debugging capabilities.

user interface

All components of a system that provide information and controls for the user to accomplish specific tasks with the system.

user story

A user or business requirement consisting of one sentence expressed in the everyday or business language which is capturing the functionality a user needs, the reason behind it, any non-functional criteria, and also including acceptance criteria.

validation

Ref: ISO 9000

Confirmation by examination and through provision of objective evidence that the requirements for a specific intended use or application have been fulfilled.

verification

Ref: ISO 9000

Confirmation by examination and through provision of objective evidence that specified requirements have been fulfilled.
