# Glossary for Non-Technical Audience – UST AccelerateUS Event

This glossary provides simple definitions and helpful resources for key terms used in software testing, AI, and IT. It’s designed to support attendees with non-technical backgrounds.

## Artificial Intelligence (AI)

AI refers to technology that enables machines to simulate human intelligence, such as problem-solving and learning.

Learn more: https://www.ibm.com/cloud/learn/what-is-artificial-intelligence

## Machine Learning (ML)

ML is a subset of AI that uses data to train models and make predictions or decisions.

Learn more: https://www.ibm.com/cloud/learn/machine-learning

## Deep Learning (DL)

DL is a more complex form of ML using neural networks to analyze data in layers and recognize patterns.

Learn more: https://www.geeksforgeeks.org/introduction-to-deep-learning/

## Natural Language Processing (NLP)

NLP helps computers understand, interpret, and generate human language.

Learn more: https://www.techtarget.com/searchenterpriseai/definition/natural-language-processing-NLP

## Large Language Model (LLM)

LLMs are advanced NLP models trained on large datasets to generate and understand human-like text.

Learn more: https://www.techtarget.com/searchenterpriseai/definition/large-language-model-LLM

## Selenium

Selenium is a tool used for automating web browsers, primarily for testing web applications.

Learn more: https://www.selenium.dev/

## Test Automation

Test automation uses software to perform tests on applications automatically, saving time and increasing reliability.

Learn more: https://www.guru99.com/automation-testing.html

## Self-Healing Tests

These are tests that automatically adapt to small changes in an application, reducing the need for manual updates.

Learn more: https://testim.io/blog/self-healing-tests/

## Test Case

A test case is a specific scenario used to check whether a part of an application works as expected.

Learn more: https://www.guru99.com/test-case.html

## Regression Testing

Regression testing ensures that recent code changes haven't negatively impacted existing functionality.

Learn more: https://www.browserstack.com/guide/regression-testing

## Exploratory Testing

Exploratory testing is unscripted testing where testers use their knowledge to discover issues.

Learn more: https://www.guru99.com/exploratory-testing.html

## Continuous Integration / Continuous Deployment (CI/CD)

CI/CD is a development practice where code changes are automatically tested and deployed quickly and frequently.

Learn more: https://www.redhat.com/en/topics/devops/what-is-ci-cd

## Defect Reporting

Defect reporting is the process of documenting errors found during testing.

Learn more: https://www.guru99.com/defect-management-process.html

## Synthetic Data

Synthetic data is artificially created data used for testing when real data is unavailable or sensitive.

Learn more: https://www.ibm.com/topics/synthetic-data

## Scripted Automation

This involves writing code for automated tests using programming languages.

Learn more: https://www.softwaretestinghelp.com/scripted-testing/

## Low-Code / No-Code

Platforms that allow users to create applications or automation with minimal coding skills.

Learn more: https://www.salesforce.com/products/platform/best-practices/low-code-vs-no-code/

## Visual Testing

A method of checking that an app looks correct across different devices or browsers using image comparison.

Learn more: https://applitools.com/visual-testing/

## Generative AI

A type of AI that generates new content, like test scripts or user data, from examples and patterns.

Learn more: https://www.zdnet.com/article/what-is-generative-ai-everything-you-need-to-know/

## Prompt Engineering

The process of crafting input prompts to guide AI tools effectively and produce useful results.

Learn more: https://builtin.com/artificial-intelligence/prompt-engineering

## Test Strategy

A high-level plan that defines the approach, resources, and schedule for software testing.

Learn more: https://www.guru99.com/software-testing-strategy.html

## Automation Feasibility Analysis

The process of evaluating whether it makes sense to automate specific test cases based on cost, complexity, and ROI.

Learn more: https://www.guru99.com/automation-testing.html

## Test Scripting

Writing code that directs automated tools to test specific functions or features of an application.

Learn more: https://www.geeksforgeeks.org/software-testing-scripting/

## Autonomous Testing

Testing that is automatically planned, generated, and executed by AI with little to no human intervention.

Learn more: https://www.browserstack.com/guide/autonomous-testing

## Real-time Defect Detection

The ability of AI tools to identify defects during test execution without waiting for a full report cycle.

Learn more: https://www.testim.io/blog/ai-defect-detection/

## Predictive Analytics

AI-based analysis of past test results to predict future test failures or problem areas.

Learn more: https://www.ibm.com/topics/predictive-analytics

## Risk-Based Testing

Testing approach that focuses more effort on areas of highest business or technical risk.

Learn more: https://www.guru99.com/risk-based-testing.html

## Test Data Provisioning

Creating and supplying relevant data sets to be used during testing, sometimes via AI-generated synthetic data.

Learn more: https://www.katalon.com/resources-center/blog/test-data-management

## Defect Analytics

Analyzing test defects to find patterns and root causes, often with the help of AI.

Learn more: https://www.guru99.com/defect-management-process.html

## Model-Based Testing

Creating tests based on models of the system's expected behavior, often reducing the need for scripting.

Learn more: https://www.softwaretestinghelp.com/model-based-testing/

## Scriptless Automation

Automation where users can create tests through UI or natural language without writing traditional code.

Learn more: https://testim.io/blog/scriptless-test-automation/

## Domain Expertise

Subject matter knowledge that testers use to ensure test cases reflect real user needs and business logic.

Learn more: https://www.softwaretestinghelp.com/domain-knowledge-in-testing/

## Test Coverage

A measure of how much of the system is tested by a set of tests—higher coverage usually means fewer missed bugs.

Learn more: https://www.browserstack.com/guide/test-coverage-in-software-testing

## API Testing

Testing the communication between different software systems, especially through APIs.

Learn more: https://www.guru99.com/api-testing.html

## BDD (Behavior-Driven Development)

A development approach where tests are written in plain language and tied to business requirements.

Learn more: https://cucumber.io/docs/bdd/

## Delta Test Scenarios

Test scenarios created by comparing current requirements or defect logs to prior ones to catch recent changes.

Learn more: https://www.microfocus.com/documentation/silk-performer/205/en/silkperformer-205-help-en/GUID-2AB1C8CB-3C95-4E57-BFFC-83F27277F70C.html

## Data Privacy

Ensuring sensitive user or business data is handled appropriately and not exposed during testing.

Learn more: https://www.csoonline.com/article/2110123/what-is-data-privacy.html

## CI Tools (e.g., Jenkins, GitLab CI)

Tools that manage continuous integration pipelines, enabling automated testing with every code change.

Learn more: https://www.redhat.com/en/topics/devops/what-is-ci-cd

## Visual Assertions

Visual checks performed by AI to ensure UI elements are displayed as intended across different devices.

Learn more: https://applitools.com/blog/visual-testing-ai/

## Self-Healing Plugins

Software components that automatically fix broken test scripts when app interfaces change.

Learn more: https://testim.io/blog/self-healing-tests/

## Test Reporting Genie

A tool that simplifies and automates the creation of test reports, often with AI-enhanced insights.

Learn more: https://www.testingxperts.com/blog/how-to-generate-effective-software-test-reports

## Prompt Tuning

The process of refining prompts to AI tools to improve the quality of their responses.

Learn more: https://www.promptingguide.ai/introduction/prompt-tuning

## Human in the Loop

Involving humans to review, adjust, and guide AI-generated outputs to ensure correctness and relevance.

Learn more: https://www.techtarget.com/searchenterpriseai/definition/human-in-the-loop-HITL