

Agenda

- 1. Introduction to BDD
- 2. Key Concepts of BDD
- 3. Introduction to Cucumber
- 4. Gherkin Syntax
- 5. Example of Gherkin Syntax
- 6. Benefits of BDD with Cucumber
- 7. Setting Up Cucumber

Introduction to BDD

Definition:

BDD is a software development approach that emphasizes collaboration between developers, QA, and non-technical or business participants in a software project.

Purpose:

To improve communication, create shared understanding, and ensure the software meets business requirements.

Key Concepts of BDD

User Stories:

Descriptions of features from an end-user perspective.

Scenarios:

Detailed examples of user stories, outlining specific use cases.

Gherkin Syntax:

A business-readable domain-specific language for describing software behavior.

Introduction to Cucumber

Definition:

Cucumber is a tool for running automated tests written in plain language.

Language:

Uses Gherkin syntax to define test cases.

Integration:

Can be integrated with various programming languages like Java, Ruby, and JavaScript.

Gherkin Syntax

Feature: Describes the feature under test.

Scenario: Describes a specific use case.

Steps: Given, When, Then, And, But.

- Background: Common steps for all scenarios.
- Scenario Outline: Parameterized scenarios.
- Examples: Data tables for Scenario Outline.
- Given: Sets up the initial state.
- When: TDescribes an action.
- Then: Describes an expected outcome.
- And, But: Additional steps.

Example of Gherkin Syntax

```
Feature: Login Functionality

Scenario: Valid Login

Given User is on the login page

When User enters valid username

And User enters valid password

Then User should be logged in successfully
```

Benefits of BDD with Cucumber

Improved Communication: Common language understood by all stakeholders.

Clear Requirements: Detailed and executable specifications.

Early Bug Detection: Automated tests catch issues early.

Living Documentation: Tests serve as up-to-date documentation.

Setting Up Cucumber

- **Install Cucumber:** Follow installation steps for your programming language.
- Write Feature Files: Use Gherkin syntax to create feature files.
- Implement Step Definitions: Code to automate the steps defined in feature files.
- Run Tests: Use Cucumber to execute the tests and validate behavior.



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