

What is Cucumber BDD?

1. BDD (Behavior-Driven Development) – Concept

BDD (Behavior-Driven Development) is a software development approach where:

- Developers
- Testers
- Product Owners / Business stakeholders

work together to write scenarios that describe how a feature should behave **in plain English**.

This ensures:

- Clear understanding of requirements
- Less ambiguity
- Faster feedback
- Higher collaboration

The requirements are written in a structured format called **Gherkin**.

2. What is Cucumber?

Cucumber is a **testing framework** that supports **BDD**.

It:

- Reads test scenarios written in **Gherkin language**
- Connects those steps to actual automation code (called **step definitions**)

- Executes those tests across browsers, APIs, and applications

Cucumber is used with:

- Java
 - JavaScript
 - TypeScript
 - Ruby
 - Python
 - etc.
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3. Gherkin – The Language of Cucumber

Gherkin uses simple keywords:

- **Feature**
- **Scenario**
- **Given** (pre-condition)
- **When** (action)
- **Then** (expected outcome)
- **And / But**

Example:

Feature: Login functionality

Scenario: Successful login

Given user is on the login page

When user enters valid username and password

Then user should be navigated to the dashboard

These sentences will be mapped to code by automation engineers.

4. How Cucumber Works

1. **Business team writes scenarios** in English
 2. **Automation testers create step definition functions** for each line
 3. **Cucumber binds Gherkin → Code**
 4. **Tests run**, and Cucumber generates readable reports
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5. Benefits of Cucumber BDD

- ✓ Improves communication between business & technical teams
 - ✓ Reduces misunderstanding of requirements
 - ✓ Scenarios become living documentation
 - ✓ Easy test readability
 - ✓ Works with Selenium, Cypress, Playwright, API tests, etc.
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