TDD & BDD

Lesson 03 : Gherkin Language Basics

Capgemini

Lesson Objectives

To understand the following topics:

- Introduction to Gherkin Language

- Gherkin Syntax

- Gherkin Keywords

- Example

- Rules for using Gherkin

- Gherkin Feature file

- Feature

- Background

Introduction to Gherkin Language

- Gherkin is a language, that is used to write Features, Background, Scenarios, and Steps.

- Gherkin helps us to write concrete requirements.

- Gherkin files are plain text Files and have the extension .feature.

- Gherkin syntax is simple and readable

- Each line that is not blank has to start with a Gherkin keyword, followed by any text you like.

- Gherkin is based on TreeTop Grammar which exists in 37+ languages thus you can write your gherkin in 37+ spoken languages.

Gherkin Syntax

- Gherkin is a line-oriented language like Python and YAML

- Each line called step and starts with keyword and end of the line terminates the step.

- Tab or space (preferred) are used for indentation.

- Comments can be added anywhere but start with a # sign.

Gherkin Keywords

The keywords are -

- Feature

- Scenario

- Given, When, Then, And, But (Steps)

- Background

- Scenario outline

- Examples

Feature: Login Functionality

Scenario: Login Functionality successful
Given user navigates to *www.myshopingsite.com*
When user logs in using Username as "USER" and Password "PASSWORD"
Then login should be successful

Scenario: Login Functionality unsuccessful
Given user navigates to *www.myshopingsite.com*
When user logs in using Username as "USER1" and Password "PASSWORD1"
Then It should display error message

Rules for using Gherkin

- Single Gherkin source file should have a description of the single feature.

- the source file should have the .feature extension.

Gherkin Feature file


```gherkin
Feature: UserRegistration
    Check for the Home page
    See of the registration is working
    Also verify if the registered user is displayed


Background:
    Given Clear the already created users before starting scenario


Scenario: Register a User with minimal password combinations
    Given I have opened the Development Site
    And I see the home page loaded
    When I click the register link
    Then I should see the register page
    And I fill the form with details
    | UserName | Password | CPassword |
    | karthik  | kkk      | kkk       |
```

Feature

The **Feature** keyword is used to describe a software feature, and to group the related scenarios

Feature acts as a heading for a Scenario

Feature has a list of steps to be performed in particular scenario as a whole

A Feature has three basic elements

- The keyword – Feature.

- The name of the feature, provided on the same line as the Feature keyword.

- An optional description that can span multiple lines

Feature files are the base files to hold all the scenarios

E.g : Feature: UserRegistration

Background

Backgrounds are used with the scenarios which have common functionalities

They will be executed before every scenario and perform the operation specified

For Example:

In scenarios like checking user settings, profile settings, user information, the common operations are

      Launching the application

      Login into the application

```
Background:
    Given Clear the already created users before starting scenario
```

Feature

- Based on the example given anybody can understand the working of the test and what it is intending to do.

- It gives an unexpected powerful impact by enabling people to visualize the system even before it has been built.

- Any of the business user would read and understand the test and would be able to give the feedback that whether it reflects their understanding of what the system should do, and any other scenario that needs to be considered.

Summary

In this lesson, you have learnt:

- Gherkin Language and its syntax

- Creating feature file and generating test cases

1. What will be extension of a feature file?
   a.   .exe
   b.   .obj
   c.   .feature
   d.   .sfj