

**Task 1:** Write the differences between the Test-Driven Development and Behaviour Driven Development.

**Test Driven Development:**

- Test Driven Development is a development technique which focuses more on the implementation of a feature of a software application/product
- In TDD the participants are developers.
- Its main focus is on unit tests.
- In TDD the starting point is a test case.
- It is a development practice.
- In TDD collaboration is required only between the developers
- It is a good approach for projects which involve API and third-party tools.
- Some of the tools used are Cucumber, Jbehave, and Jdave.

**Behavior Driven Development:**

- Behavior Driven Development is a development technique which focuses more on a software application's behavior.
- In BDD the participants are Developers, Customers, QAs.
- Its main focus is on system requirements.
- In BDD the starting point is a scenario.
- It is a team methodology.
- In BDD collaboration is required between all the stakeholders
- It is a good approach for project development which is driven by user actions.
- Some of the tools are Cucumber, Jbehave and Jspec.

**Task 2:** Write the Feature scenario for Login and transaction

Scenario 1: Successful Login

- Given a registered user

- Enter valid username and password
- It will successfully logged into the system
- Then it should be redirected to the dashboard

#### Scenario 2: Invalid Login

- Given a registered user
- Enter an invalid username or password
- Then we will see an error message indicating the credentials are incorrect
- And it should remain in the Login page.

#### Scenario 3: Forgot Password

- Given a registered user
- Click on the "Forgot Password" link
- Then it will be directed to a page to reset my password
- Then we will receive an email to reset the password

#### Scenario 4: View Account Balance

- Logged into the system
- It will navigate to the account dashboard
- Then we are able to view current account balance

#### Scenario 5: Make a Transaction

- Logged into the system
- A transaction (e.g., transfer funds, make a payment)
- Then we are able to select the recipient and specify the amount
- And we will receive a confirmation message upon successful transaction completion

#### Scenario 6: Insufficient Funds

- Logged into the system
- Insufficient funds to complete a transaction

- Then we attempt to make a transaction
- Then it we will receive an error message indicating insufficient funds
- And the transaction should not be processed

**Task 3:** Difference between the Agile methodology and SDLC processes.

**Software Development Lifecycle:**

- 1.SDLC (Software Development Lifecycle) is a systematic process used for efficient project management
- 2.SDLC approach is Linear and sequential development process
- 3.SDLC has different phases: Planning, Design, Coding, Testing, Deployment, Maintenance.
- 4.Example frameworks:Waterfall model,Spiral model, V-model
- 5.Feedback is typically gathered at the end of each phase
- 6.Full product is delivered at the end of the development cycle.

**Agile Methodology:**

- 1.Agile is an iterative approach and methodology embedded within the SDLC for Software Project Development
- 2.Agile method approach is Iterative and incremental development.
- 3.Agile method has phases which are divided into short, time-boxed iterations.
- 4.Example frameworks:Scrum, Kanban, Extreme Programming (XP)
- 5.Feedback is frequent and continuously taken from the stakeholders
- 6.Allows for the delivery of a Minimum Viable Product (MVP) early in the process