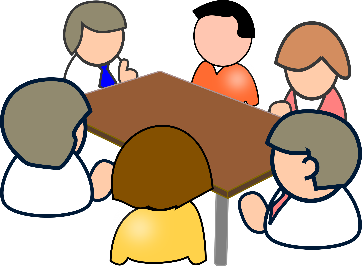
National University of Computer and Emerging Sciences Chiniot-Faisalabad Campus



**META-BASE**

Software Quality Engineering

### Semester Project

### Phase 1ST

### BS (SE) 5A

**GUI Test Cases:**

1. Login Functionality:

Objective: Verify that users can log in successfully.

**Test Case 1:**

1. Open the Metabase website.

2. Enter valid credentials (username and password).

3. Click the "Login" button.

4. Verify that the user is redirected to the dashboard.

**2. Invalid Login Attempt:**

Objective: Verify that the system handles incorrect login attempts.

**Test Case 2:**

1. Open the Metabase website.

2. Enter incorrect credentials.

3. Click the "Login" button.

4. Verify that an error message is displayed.

**3. Dashboard Navigation:**

Objective: Verify that users can navigate to the dashboard.

**Test Case 3:**

1. Log in to Metabase.

2. Click on the "Dashboard" link.

3. Verify that the dashboard page is displayed.

**4. Query Execution:**

Objective: Verify that database queries can be executed.

**Test Case 4:**

1. Navigate to the dashboard.

2. Create and execute a valid database query.

3. Verify that the query results are displayed on the page

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**5. Query Visualization:**

Objective: Verify that query results can be visualized.

**Test Case 5:**

1. Execute a database query.

2. Choose to visualize the results as a chart.

3. Verify that the chart representation is displayed.

**6. Filter Data:**

Objective: Verify that users can filter data in query results.

**Test Case 6:**

1. Execute a database query with results.

2. Apply a filter condition.

3. Verify that the results are filtered accordingly.

**7. Export Data:**

Objective: Verify that users can export query results.

**Test Case 7:**

1. Execute a database query with results.

2. Choose to export the data.

3. Verify that a download link is provided, and data can be downloaded.

**8. User Permissions:**

Objective: Verify that user permissions are enforced.

**Test Case 8:**

1. Log in with a user having limited permissions.

2. Attempt to access restricted data.

3. Verify that access is denied, and an appropriate message is displayed.

**9. Data Integrity:**

Objective: Verify that data integrity is maintained during updates.

**Test Case 9:**

1. Update a record in the database.

2. Verify that the updated data is correctly reflected in the system.

**10. Password Change:**

**ruby**

- Objective: Verify that users can change their passwords.

**Test Case 10:**

1. Log in to Metabase.

2. Navigate to the account settings.

3. Change the password.

4. Verify that the password is updated successfully.

**11. Session Timeout:**

**perl**

- Objective: Verify that the system handles session timeouts.

**Test Case 11:**

1. Log in to Metabase.

2. Perform no activity for the specified session timeout duration.

3. Verify that the user is automatically logged out.

**12. Dashboard Customization:**

**vbnet**

- Objective: Verify that users can customize the dashboard.

Test Case 12:

1. Navigate to the dashboard.

2. Add a new widget to the dashboard.

3. Verify that the widget is successfully added and displayed.

**13. Mobile Responsiveness:**

**vbnet**

- Objective: Verify that the Metabase website is responsive on mobile devices.

Test Case 13:

1. Open Metabase from a mobile device.

2. Navigate through the website.

3. Verify that the website is responsive and user-friendly on mobile.

**14. Error Handling:**

**vbnet**

- Objective: Verify that the system provides meaningful error messages.

Test Case 14:

1. Enter an invalid database query.

2. Attempt to execute the query.

3. Verify that a clear and meaningful error message is displayed.

**15. Data Deletion:**

**go**

- Objective: Verify that users can delete records.

Test Case 15:

1. Navigate to a data record in the system.

2. Choose to delete the record.

3. Verify that the record is deleted successfully.

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**Objective: Verify that users can log in successfully.**

Feature: Login to Metabase

Scenario: Valid Login

Given the user is on the login page

When they enter valid credentials

And click on the login button

Then they should be logged in successfully

**Objective: Verify that the system handles incorrect login attempts.**

Feature: Invalid Login Attempt

Scenario: Incorrect Credentials

Given the user is on the login page

When they enter incorrect credentials

And click on the login button

Then they should see an error message

**Objective: Verify that users can navigate to the dashboard.**

Feature: Dashboard Navigation

Scenario: Access Dashboard

Given the user is logged in

When they click on the dashboard link

Then they should be directed to the dashboard

**Objective: Verify that database queries can be executed.**

Feature: Execute Database Query

Scenario: Run Query

Given the user is on the dashboard

When they execute a valid database query

Then they should see the query results

**Objective: Verify that query results can be visualized.**

Feature: Visualize Query Results

Scenario: View Chart

Given the user has executed a query

When they choose to visualize the results as a chart

Then they should see a chart representation

**Objective: Verify that users can filter data in query results.**

Feature: Filter Data in Query Results

Scenario: Apply Filter

Given the user has query results

When they apply a filter condition

Then the results should be filtered accordingly

**Objective: Verify that users can export query results.**

Feature: Export Query Results

Scenario: Export Data

Given the user has query results

When they choose to export the data

Then a download link should be provided

**Objective: Verify that user permissions are enforced.**

Feature: User Permissions

Scenario: Restricted Access

Given a user with limited permissions

When they attempt to access restricted data

Then they should be denied access

**Objective: Verify that data integrity is maintained during updates.**

Feature: Data Integrity

Scenario: Update Data

Given the user has data in the database

When they update a record

Then the data integrity should be maintained

**Objective: Verify that users can change their passwords.**

Feature: Change Password

Scenario: Password Update

Given the user is logged in

When they change their password

Then the password should be updated successfully

**Objective: Verify that the system handles session timeouts.**

Feature: Session Timeout

Scenario: Inactivity Timeout

Given the user is logged in

When there is no activity for a specified time

Then the user should be logged out due to inactivity

**Objective: Verify that users can customize the dashboard.**

Feature: Customize Dashboard

Scenario: Add Widget

Given the user is on the dashboard

When they add a widget to the dashboard

Then the widget should be displayed

**Objective: Verify that the Metabase website is responsive on mobile devices.**

Feature: Mobile Responsiveness

Scenario: Access on Mobile

Given the user is accessing Metabase from a mobile device

When they navigate through the website

Then the website should be responsive and user-friendly

**Objective: Verify that the system provides meaningful error messages.**

Feature: Error Handling

Scenario: Invalid Query

Given the user has entered an invalid database query

When they attempt to execute the query

Then they should receive a clear error message

**Objective: Verify that users can delete records.**

Feature: Delete Data

Scenario: Delete Record

Given the user has data in the database

When they choose to delete a record

Then the record should be deleted successfully