# For GUI:

package taskk;

public class MetabaseSearchAndCustomizeTest {

// Background

boolean userLoggedIn = false;

// Scenario: Conducting a valid search with a keyword

public void validSearch(String keyword) {

if (userLoggedIn) {

String searchResult = conductSearch(keyword);

System.***out***.println("Scenario: Valid Search - " + searchResult);

}

}

// Scenario: Attempting an invalid search with special characters

public void invalidSearch(String invalidKeyword) {

if (userLoggedIn) {

String errorMessage = conductInvalidSearch(invalidKeyword);

System.***out***.println("Scenario: Invalid Search - " + errorMessage);

}

}

// Scenario: Searching with an empty keyword

public void searchWithEmptyKeyword() {

if (userLoggedIn) {

String emptySearchMessage = conductEmptySearch();

System.***out***.println("Scenario: Empty Search - " + emptySearchMessage);

}

}

// Scenario: Applying valid customization settings

public void applyValidCustomizationSettings(String chartType, String dateRange) {

if (userLoggedIn) {

updateVisualization(chartType, dateRange);

System.***out***.println("Scenario: Valid Customization - Visualization updated successfully");

}

}

// Scenario: Applying conflicting customization settings

public void applyConflictingCustomizationSettings(String chartType, String invalidDateRange) {

if (userLoggedIn) {

String errorMessage = attemptConflictingSettings(chartType, invalidDateRange);

System.***out***.println("Scenario: Conflicting Customization - " + errorMessage);

}

}

// Scenario: Customizing without making changes

public void customizeWithoutChanges() {

if (userLoggedIn) {

updateVisualizationWithoutChanges();

System.***out***.println("Scenario: Customizing Without Changes - Visualization remains unaltered");

}

}

// Helper methods (to be implemented)

private String conductSearch(String keyword) {

return "Search results for " + keyword;

}

private String conductInvalidSearch(String invalidKeyword) {

return "Invalid search. Special characters not allowed.";

}

private String conductEmptySearch() {

// Implement logic for empty search and return message

return "Please enter a keyword for search.";

}

private void updateVisualization(String chartType, String dateRange) {

System.***out***.println("Updating visualization with chart type: " + chartType + ", date range: " + dateRange);

}

private String attemptConflictingSettings(String chartType, String invalidDateRange) {

return "Conflicting settings. Please review your choices.";

}

private void updateVisualizationWithoutChanges() {

System.***out***.println("No changes made to visualization settings");

}

public static void main(String[] args) {

MetabaseSearchAndCustomizeTest test = new MetabaseSearchAndCustomizeTest();

test.validSearch("Sales");

test.invalidSearch("!@#$%");

test.searchWithEmptyKeyword();

test.applyValidCustomizationSettings("Bar Chart", "Last 30 days");

test.applyConflictingCustomizationSettings("Bar Chart", "5 years");

test.customizeWithoutChanges();

}

}