Group Project Test Cases

·File Upload Test Case:

Test Scenario: Uploading a valid CSV file.

Steps:

Open the app.

Click on the "Upload your dataset (CSV)" button.

Choose a valid CSV file.

Check if the file is successfully loaded into the data table.

·File Upload Error Handling Test Case:

Test Scenario: Uploading an invalid file format.

Steps:

Open the app.

Click on the "Upload your dataset (CSV)" button.

Choose a file that is not in CSV format.

Verify that the app handles the error gracefully (e.g., displays an error message).

·Data Download Test Case:

Test Scenario: Downloading the dataset in CSV format.

Steps:

Open the app.

Click on the "Download Data (CSV)" link.

Verify that a CSV file is downloaded.

·Data Content Format, Plot Generation:

Test Scenario: Downloading the dataset in CSV format.

Steps:

Open the app.

Click on the "Download Data (CSV)" link.

Verify that a CSV file is downloaded.

·Plot Generation Test Cases:

Test Scenario: Verify the generation of each plot in the app.

Steps:

Upload a valid CSV file.

Check each tab.

Verify that the corresponding plot is generated for each tab.

·Edge Case Test Case:

Test Scenario: Test with an empty dataset.

Steps:

Open the app.

Upload an empty CSV file.

Verify that the app handles empty data gracefully (e.g., no plots are generated, and there are appropriate messages).

·Performance Test Case:
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> Test Scenario: Test the performance with a large dataset.
> Steps:
> Prepare a large CSV file.
> Upload the large file.
> Verify that the app responds within a reasonable time and does not crash.

·Cross-browser Compatibility Test Case:
>
> Test Scenario: Test the app in different web browsers.
> Steps:
> Open the app in popular web browsers (Chrome, Firefox, Safari, Edge).
> Verify that the app functions correctly in each browser.

Table

Test Case ID	Test Case Description	Test Steps	Test Data	Expected Results	Actual Results	Pass/Fail
TU01	File Upload - Valid CSV	1. Open the app. 2. Click on "Upload your dataset (CSV)." 3. Choose a valid CSV file. 4. Check if the file is loaded into the table.	Valid CSV file	File is loaded into the data table	As Expected	Pass
TU02	File Upload Error Handling - Invalid Format	1. Open the app. 2. Click on "Upload your dataset (CSV)." 3. Choose a file not in CSV format. 4. Verify error handling.	Non-CSV file	Error message is displayed	As Expected	Pass
TU03	Data Download - CSV Format	1. Open the app. 2. Click on "Download Data (CSV)." 3. Verify a CSV file is downloaded.	-	CSV file is downloaded	As Expected	Pass
TU04	Data Content Format, Plot Generation - Verify Each Plot	1. Upload a valid CSV file. 2. Check each tab for corresponding plots. 2. Check column names and data types	Valid CSV file	Valid Plots are generated for each tab	As Expected	Pass
TU05	Edge Case - Empty Dataset	1. Open the app. 2. Upload an empty CSV file. 3. Verify appropriate handling.	Empty CSV file	No plots generated, and appropriate messages displayed	As Expected	Pass
TU06	Performance - Large Dataset	1. Prepare a large CSV file. 2. Upload the large file. 3. Verify the app's response time.	Large CSV file	App responds within a reasonable time	As Expected	Pass
TU07	Cross-browser Compatibility	1. Open the app in Chrome, Firefox, Safari, Edge. 2. Verify correct functionality in each browser.	-	App functions correctly in each browser	As Expected	Pass