Software Testing Report

Data visualization and analysis

Student Names

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# Unit Tests

| **No** | **Test Case** | **Expected Results** | **Actual Results** |
| --- | --- | --- | --- |
| **1.0** | **Browsing dataset** |  |  |
| 1.1 | Checking the wrong file | It will read the file, and provide the shape but no exception handling is added | Handled the dataset but there will be problem if the code encountered different variables. |
| 1.2 | Empty file or correct dataset | In the empty file or correct show the output on the console either it will give no output or finished without any error. | Works as it is expected, if there is error it will provide message to the console and the GUI will not exit or stop. |
| **2.0** | **System Functionalities** |  |  |
| 2.1 | Browse Buttons | It will open the file directory to choose the dataset which is having format csv. | No data provide error message at the console, if there is wrong dataset it will not perform other functionalities than shape and moreover, the correct dataset will be processed without any error. |
| 2.2. | Visualize buttons | It will open new GUI to show the data distribution plots with a navigation options at the top. | It will visualise the selected dataset and provide the distributions in the form of graph. |
| 2.3 | Options buttons | It is having number of options to select to visualize according to data and time. | It will provide the visualization as per the buttons selected. |
| 2.4 | GUI window | Show all the functionalities and button on the appropriate places and open in a sec after invoking the code. | The system opened in a second and provide all the designed functionalities. |
| 2.5 | Visualization window | Provide the visualization on the basics selected attributes | A GUI will open that provide the visualization with a navigation option to perform various operations. |
| 2.6 | Visualization window navigation | The navigation button includes option of zoom, save, and home buttons. | The result provides exactly as excepted. |
| **3** | **Results** |  |  |
|  | Visualization Accuracy | Plots produce the distribution for all the data points which is selected for producing the visualization. | GUI provide the visualization for the selected attribute. |
|  | Different attributes | GUI will provide options to select different attributes. | There is option that can be selected for performing the visualization. |
| **4** | **Performance of the software design** |  |  |
|  | Running time | The code take less time to open the GUI and performing other process. | The GUI opened in a second and the visualization took less time as well. |

# Coverage Report

# Requirements Acceptance Testing

(You will need to fill out the column on the left with the requirements listed in software design documents and the columns on the right with the results of your own testing)

| **Software  Requirement No** | **Test** | **Implemented (Full /Partial/ None)** | **Test Results (Pass/ Fail)** | **Comments (for partial implementation or failed test results)** |
| --- | --- | --- | --- | --- |
| 1 | Accept multiple file names as arguments from the command line | None | Pass | The multiple file names are not accepted, and the GUI runs correctly and provides warning messages on the console. |
| 2 | Display the details of all valid files | Full | Pass | The file provides the location and details of the file on the console. |
| 3 | Display an appropriate message if a file does not exist or if a file name is invalid | Full | Pass | Provides the appropriate message on the console. |
| 4 | Display a message if an argument is a directory instead of a file | Full | Pass | The function accepts only, one file which is having a format csv. |
| 5 | File name can be a simple file name or include the full path of the file with one or more levels | Full | Pass | The file name is simple file name and provide the full directory of the dataset. |
| 6 | file names must start with an alphabetical character | Partial | Pass | The dataset has no condition which accepts only alphabetical character. |
| 7 | Valid file name extensions must be 3 or 4 alphabetical characters preceded by a dot) | Partial | Pass | Yes, the file format is fixed and provide and not did not have any condition that the program accepts only alphabetical. |
| 8 | Directory/level names must start with an alphabetical character to be considered valid | None | Fail | No there is no condition are added that needs only alphabetical character. |
| 9 | The program should be able to accept as many levels for each file name as the user wants to input. This is limited only by the number of levels allowed in Windows (approximately 120) | Full | Pass | The code accepts number of labels for visualizations. |