Software Testing Report

UI implementation for Victoria state accident database

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Table of Contents

[1.0 Unit Tests 3](#_Toc49779837)

[2.0 Coverage Report 4](#_Toc49779838)

[3.0 Requirements Acceptance Testing 5](#_Toc49779839)

# Unit Tests

(In this table you fill out details about what unit tests you have done using the unittest module)

| **No** | **Test Case** | **Expected Results** | **Actual Results** |
| --- | --- | --- | --- |
| **1.0** | **Correct file (CSV) upload** | **File is read and generate message (“CSV file uploaded successfully!”)** | **File is read and generate message (“CSV file uploaded successfully!”)** |
| 1.1 | Test incorrect file format | Error message and not accept file | Error message and not accept file |
| 1.2 | Changing file to another | **File is read and generate message (“CSV file uploaded successfully!”)** | **File is read and generate message (“CSV file uploaded successfully!”)** |
| **2.0** | **accepts Accident type input** | shows the data in table format | shows the data in table format |
| 2.1 | No input entered for accident type | Prompt user to input accident type | Prompt user to input accident type “Please enter an accident type” |
|  | No input entered for year | Use default 2013 | Uses default 2013 |
| 2.2 | No matched input for accident type | Show empty table | Show empty table |
| **3.0** | Display data for selected year | Display table of information | Display table of information |
| 3.1 | Select any year from drop down menu | User inputed value will be inputed into the variable called selected\_year | User inputed value will be inputed into the variable called selected\_year |
| 3.2 | All headings change according to the selected year |  |  |
| **4.0** | **Display graph for speed zones** | **Graph generated** | **Graph generated** |
| 4.1 | Display correct chart for speed zone accidents |  |  |
| **5.0** | **Display graph for accidents per hour** |  |  |
| **6.0** | **Display chart for alcohol impacts** |  |  |
|  |  |  |  |
|  |  |  |  |

# Coverage Report

A description of the coverage of your unit tests, including how you evaluated coverage (function, statement, branch, condition)

# Requirements Acceptance Testing

| **Software  Requirement No** | **Test** | **Implemented (Full /Partial/ None)** | **Test Results (Pass/ Fail)** | **Comments (for partial implementation or failed test results)** |
| --- | --- | --- | --- | --- |
| 1 | The user interface needs to be able to access the data set. | Full | Pass |  |
| 2 | The user interface needs to be able to read the data using pandas .read\_csv(). | Full | Pass |  |
| 3 | The user interface needs to be able to filter the data based on the year. | Full | Pass |  |
| 4 | The user interface needs to have a drop-down menu for the user to select the time period. | Partial | Pass | The user selects a year and all data within the 12-month time span of the year is displayed. |
| 5 | The interface needs to be able to read user inputs for keywords. | Full | Pass |  |
| 6 | The interface needs to be able to produce charts for the users. | Full | Pass |  |
| 7 | The interface needs to be able to produce relevant tables. | Full | Pass |  |
| 8 | The interface needs to be able to calculate the percentage of alcohol involvement per type of accident. |  |  |  |
| 9 | The interface needs to allow the users to return to the starting page. | Full | Pass |  |
| 10 | The interface needs to be able to produce a table to show the data the user searched for using the search engine. | Full | Pass |  |
| 11 | The program will use streamlit to create the user interface. | Full | Pass |  |
| 12 | Streamlit will create the UI through a local host meaning that installation of streamlit through miniconda is required. | Full | Pass |  |
| 13 | Streamlit will also be used to produce all the relevant charts and table for the user. | Full | Pass |  |