Software Testing Report

NYC Restaurant Inspection Analysis Tool

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# Unit Tests

**Total tests = 20**

| **No** | **Test Case** | **Expected Results** | **Actual Results** |
| --- | --- | --- | --- |
| **1.0** | **Create Table Function** |  |  |
| 1.1 | Test without existing SQL database | Dataset Completed! | Dataset Completed! |
| 1.2 | Test with existing SQL database | Exception handled: pass and print "Data Exists!" | Exception handled: pass and print "Data Exists!" |
| **2.0** | **Insert Table Function** |  |  |
| 2.1 | Test without existing SQL database | Exception handled: pass and print "Not Exist!" | Exception handled: pass and print "Not Exist!" |
| 2.2 | Test with already inserted SQL database | Exception handled: pass and print "Data Already Exists!" | Exception handled: pass and print "Data Already Exists!" |
| 2.3 | Test with existing uninserted SQL database | Data Inserted! | Data Inserted! |
| **3.0** | **Display Main Window Function** |  |  |
| 3.1 | Test previous window opened | Previous window closed and show main window | Previous Window Close = Close  Main Window Show = Show |
| 3.2 | Test no previous window opened | Pass closing previous window and show main window | Previous Window Close = None  Main Window Show = Show |
| **4.0** | **Inspection Details (Time) Initial Table Data Fetch Function** |  |  |
| 4.1 | Test initial table data fetch | Data is fetched (length of data > 0) | Data is fetched (length of data > 0) |
| **5.0** | **Inspection Details (Time), Violation Distribution and Animal Related Cases Search Function** | *\*print is for test purposes, in program print is wx.MessageBox* |  |
| 5.1 | Test with correct date format | Data is fetched (length of data > 0) | Data is fetched (length of data > 0) |
| 5.2 | Test with wrong date format | Exception handled: pass and print "Not Found: Please enter right date format" | Exception handled: pass and print "Not Found: Please enter right date format" |
| 5.3 | Test with letters | Exception handled: pass and print "Not Found: Please enter value within date range / incorrect date" | Exception handled: pass and print "Not Found: Please enter value within date range / incorrect date" |
| 5.4 | Test with out-of-range date | Exception handled: pass and print "Not Found: Please enter value within date range / incorrect date" | Exception handled: pass and print "Not Found: Please enter value within date range / incorrect date" |
| **6.0** | **Violation Keyword Search Function** |  |  |
| 6.1 | Test with correct date format | Data is fetched (length of data > 0) | Data is fetched (length of data > 0) |
| 6.2 | Test with wrong date format | Exception handled: pass and print " Not Found: Please enter a keyword / right date format" | Exception handled: pass and print " Not Found: Please enter a keyword / right date format" |
| 6.3 | Test with letters | Exception handled: pass and print "Not Found: Keyword is not found in date range / Date out of range / Incorrect Date" | Exception handled: pass and print "Not Found: Keyword is not found in date range / Date out of range / Incorrect Date" |
| 6.4 | Test with out-of-range date | Exception handled: pass and print "Not Found: Keyword is not found in date range / Date out of range / Incorrect Date" | Exception handled: pass and print "Not Found: Keyword is not found in date range / Date out of range / Incorrect Date" |
| 6.5 | Test without keyword | Exception handled: pass and print "Not Found: Please enter a keyword / right date format" | Exception handled: pass and print "Not Found: Please enter a keyword / right date format" |
| 6.6 | Test with keyword not in date range | Exception handled: pass and print "Not Found: Keyword is not found in date range / Date out of range / Incorrect Date" | Exception handled: pass and print "Not Found: Keyword is not found in date range / Date out of range / Incorrect Date" |
| **7.0** | **Inspection Details (Borough) Search Function** |  |  |
| 7.1 | Test with existing selection | Data is fetched (length of data > 0) | Data is fetched (length of data > 0) |
| *\*Below tests are for functions that define a GUI window class for each requirement. Tests don't include the GUI window creation, but just simple closing previous window and opening the selected requirement window.* | | | |
| **8.0** | **Display Individual Feature Window Function** |  |  |
| 8.1 | Test display window | Inspection Details (Time) Window displayed | Previous Window Close = Close  Main Window Show = Show |

# Coverage Report

Below is coverage report generated through coverage.py. All functions/units tested are nestled in one python file (units.py), these are the 'data processing functions' pulled out from the program code. This report covers the coverage of test\_units.py (file using python's unittest to test each unit) with function test cases taken from units.py. All tests passed.

A picture containing diagram

Description automatically generated

Main page of coverage report:

Background pattern

Description automatically generated with medium confidence

*\* all comments for units are in test\_units.py*

Coverage report for units.py:

Graphical user interface, text

Description automatically generated

Text

Description automatically generated

Text

Description automatically generated

Text

Description automatically generated

Text

Description automatically generated

Coverage for test\_units.py:

Text

Description automatically generated

Text

Description automatically generated

# Requirements Acceptance Testing

| **Software  Requirement No** | **Test** | **Implemented (Full /Partial/ None)** | **Test Results (Pass/ Fail)** | **Comments (for partial implementation or failed test results)** |
| --- | --- | --- | --- | --- |
| 1 | Display 5 buttons for each function | Full | Pass |  |
| 2 | Display text field to receive user input (Violation Keyword requirement) | Full | Pass |  |
| 3 | Display start and end dates to choose from | Partial | Fail | Cannot configure wxPython's calendar element. **Replaced with text input, date range information and input validation.** |
| 4 | Display earliest to latest date range | Full | Pass |  |
| 5 | Display list of animals to choose from | Partial | Fail | After re-reading the description of animal related cases feature, this is not relevant to the function. Feature now analyses the animal related cases (rats, mice) with user date input. |
| 6 | Display list of boroughs to choose from | Full | Pass |  |
| 7 | Give option to reset the function (input field) | Partial | Pass | For practicality and to reduce redundancy, reset the input field by typing. |
| 8 | Display appropriate table/graph respective of requirement | Full | Pass |  |
| 9 | Give option to continue to another session | Full | Pass |  |
| 10 | Give option to exit the program | Partial | Pass | For practicality and to reduce redundancy, exit is through the window button on top left corner. |