**Lab Five**

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**Course:** SDEV 300

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| --- | --- | --- | --- | --- | --- | --- |
| **Test Case** | **Test Description** | **Procedure** | **Input** | **Expected Output** | **Actual Output** | **Pass?** |
| 1. **Main Menu and Input Validation** | | | | | | |
| 1a | Test if main menu is displayed | + Run The app | None | Main menu will be displayed | Main menu is displayed | Yes |
| 1b-a | Test if the program validates user input (input must be ‘1’ or ‘2’ or ‘3’) | + Run The app  + Type A | A | A message will be displayed and prompt user to re-enter valid input again | A message is be displayed and prompt user to enter valid input again | Yes |
| 1b-b | Test if the program validates user input (input must be ‘1’ or ‘2’ or ‘3’) | + Run The app  + Type 5 | 5 | A message will be displayed and prompt user to enter valid input again | A message is be displayed and prompt user to enter valid input again | Yes |
| 1b-c | Test if the program validates user input (input must be ‘1’ or ‘2’ or ‘3’) | + Run The app  + Type -1 | -1 | A message will be displayed and prompt user to enter valid input again | A message is be displayed and prompt user to enter valid input again | Yes |
| 1. Population Data | | | | | | |
| 2a | Test if the program proceeds to the next menu when user opted “Population Data” | + Run The app  + Type 1 | 1 | The program will proceed to the next menu (Population Data menu. | The program proceeded to the next menu (Population Data menu. | Yes |
| 2b-a | Test if the program validates user input in the population data menu ((input must be ‘a’ or ‘b’ or ‘c’ or ‘d’) | + Run The app  + Type 1  + Type k | K | A message will be displayed and prompt user to re-enter valid input again | A message is displayed and prompted user to re-enter valid input again | Yes |
| 2b-b | Test if the program validates user input in the population data menu ((input must be ‘a’ or ‘b’ or ‘c’ or ‘d’) | + Run The app  + Type 1  + Type 1a | 1a | A message will be displayed and prompt user to re-enter valid input again | A message is displayed and prompted user to re-enter valid input again | Yes |
| 2b-c | Test if the program validates user input in the population data menu ((input must be ‘a’ or ‘b’ or ‘c’ or ‘d’) | + Run The app  + Type 1  + Type ? | ? | A message will be displayed and prompt user to re-enter valid input again | A message is displayed and prompted user to re-enter valid input again | Yes |
| 1. **Displaying Data from Population Data** | | | | | | |
| 3a | Test if the program displays column information when user opted “Pop Apr 1” | + Run The app  + Type 1  + Type a | a | The count, mean, std, min, max values, and histogram image of ‘Pop Apr 1” column will be displayed | The count, mean, std, min, max values, and histogram image of ‘Pop Apr 1” column is displayed | Yes |
| 3b | Test if the program displays column information when user opted “Pop Jul 1” | + Run The app  + Type 1  + Type b | b | The count, mean, std, min, max values, and histogram image of ‘Pop Jul 1” column will be displayed | The count, mean, std, min, max values, and histogram image of ‘Pop Jul 1” column is displayed | Yes |
| 3c | Test if the program displays column information when user opted “Change Pop” | + Run The app  + Type 1  + Type c | c | The count, mean, std, min, max values, and histogram image of ‘Change Pop” column will be displayed | The count, mean, std, min, max values, and histogram image of ‘Change Pop” column is displayed | Yes |
| 3d | Test if the program returns to the main menu when user opted “Exit Column” | + Run The app  + Type 1  + Type d | d | The program will return to the main menu | The program exited the column menu and returned to the main menu. | Yes |
| 1. **Displaying Data from Housing Data** | | | | | | |
| 4a | Test if the program proceeds to the next menu when user opted “Housing Data” | + Run The app  + Type 2 | 2 | The program will proceed to the next menu (Housing Data menu). | The program proceeded to the next menu (Housing Data menu). | Yes |
| 4b-a | Test if the program validates user input in the population data menu ((input must be ‘a’ or ‘b’ or ‘c’ or ‘d’ or ‘e’ or ‘f’) | + Run The app  + Type 2  + Type k | K | A message will be displayed and prompt user to re-enter valid input again | A message is displayed and prompted user to re-enter valid input again | Yes |
| 4b-b | Test if the program validates user input in the population data menu ((input must be ‘a’ or ‘b’ or ‘c’ or ‘d’ or ‘e’ or ‘f’) | + Run The app  + Type 2  + Type 1 | 1 | A message will be displayed and prompt user to re-enter valid input again | A message is displayed and prompted user to re-enter valid input again | Yes |
| 4b-c | Test if the program validates user input in the population data menu ((input must be ‘a’ or ‘b’ or ‘c’ or ‘d’ or ‘e’ or ‘f’) | + Run The app  + Type 2  + Type ? | ? | A message will be displayed and prompt user to re-enter valid input again | A message is displayed and prompted user to re-enter valid input again | Yes |
| 4c | Test if the program displays column information when user opted “AGE” | + Run The app  + Type 2  + Type a | a | The count, mean, std, min, max values, and histogram image of “Age” column will be displayed | The count, mean, std, min, max values, and histogram image of “AGE” column is displayed | Yes |
| 4d | Test if the program displays column information when user opted “BEDROMS” | + Run The app  + Type 2  + Type b | b | The count, mean, std, min, max values, and histogram image of “BEDROMS” column will be displayed | The count, mean, std, min, max values, and histogram image of “BEDROMS” column is displayed | Yes |
| 4e | Test if the program displays column information when user opted “BUILT” | + Run The app  + Type 2  + Type c | c | The count, mean, std, min, max values, and histogram image of “BUILT “column will be displayed | The count, mean, std, min, max values, and histogram image of “BUILT “column is displayed | Yes |
| 4f | Test if the program displays column information when user opted “ROOMS” | + Run The app  + Type 2  + Type d | d | The count, mean, std, min, max values, and histogram image of “ROOMS” column will be displayed | The count, mean, std, min, max values, and histogram image of “ROOMS” column is displayed | Yes |
| 4g | Test if the program displays column information when user opted “UTILITY” | + Run The app  + Type 2  + Type e | e | The count, mean, std, min, max values, and histogram image of “UTILITY”” column will be displayed | The count, mean, std, min, max values, and histogram image of “UTILITY”” column is displayed | Yes |
| 4h | Test if the program returns to the main menu when user opted “Exit Column” | + Run The app  + Type 2  + Type f | f | The program will return to the main menu | The program exited the column menu and returned to the main menu. | Yes |
| 1. **Exit Program** | | | | | | |
| 5a | Test if the program display a thank you message exit the program when user opted “exit the program” | + Run The app  + Type 3 | 3 | The program will display a thank you message and exit the program | The program displayed a thank you message and exit the program | Yes |

***Screenshots***

1a

A black screen with white text

Description automatically generated with low confidence

1b-a

A black screen with white text

Description automatically generated with low confidence

1b-b

A picture containing text, screenshot, font

Description automatically generated

1b-c

A picture containing text, screenshot, font

Description automatically generated

2a

A screen shot of a computer

Description automatically generated with medium confidence

2b-a

A screenshot of a computer screen

Description automatically generated with medium confidence

2b-b

A black screen with white text

Description automatically generated with low confidence

2b-c

A black screen with white text

Description automatically generated with low confidence

3a

A picture containing text, screenshot, font

Description automatically generated

A screenshot of a graph

Description automatically generated with medium confidence

3b

A picture containing text, screenshot, font

Description automatically generated

A picture containing text, screenshot, diagram, plot

Description automatically generated

3c

A picture containing text, font, screenshot

Description automatically generated

A picture containing text, screenshot, diagram, plot

Description automatically generated

3d

A screen shot of a computer

Description automatically generated with low confidence

4a

A screenshot of a computer screen

Description automatically generated with medium confidence

4b-a

A screenshot of a computer

Description automatically generated with medium confidence

4b-b

A screenshot of a computer

Description automatically generated with medium confidence

4b-c

A screen shot of a computer

Description automatically generated with medium confidence

4c

A picture containing text, screenshot, font

Description automatically generated

A picture containing text, screenshot, diagram, font

Description automatically generated

4d

A picture containing text, screenshot, font

Description automatically generated

A picture containing text, screenshot, diagram, plot

Description automatically generated

4e

A picture containing text, screenshot, font

Description automatically generated

A picture containing text, screenshot, diagram, font

Description automatically generated

4f

A picture containing text, screenshot, font

Description automatically generated

A picture containing text, diagram, screenshot, plot

Description automatically generated

4g

A picture containing text, screenshot, font

Description automatically generated

A picture containing text, diagram, screenshot, plot

Description automatically generated

4h

A picture containing text, screenshot, font

Description automatically generated

5a

A screen shot of a computer

Description automatically generated with medium confidence

***Pylint Analysis***

**1st Try**

***A picture containing text, screenshot, font, black

Description automatically generated***

**Final Try**

**A screen shot of a computer program

Description automatically generated with low confidence**

**Bandit Vulnerability Detection**

Run started:2023-06-19 22:55:50.237690

Test results:

No issues identified.

Code scanned:

Total lines of code: 133

Total lines skipped (#nosec): 0

Total potential issues skipped due to specifically being disabled (e.g., #nosec BXXX): 0

Run metrics:

Total issues (by severity):

Undefined: 0

Low: 0

Medium: 0

High: 0

Total issues (by confidence):

Undefined: 0

Low: 0

Medium: 0

High: 0

Files skipped (0):