Name: Corey Glover SDEV300-6382 Date: Feb 15, 2022

Objective:

The objective of this program is to parse and display a graph from a csv file. This is accomplished by using numpy, pandas, matplot and sys packages. Upon starting the program the user is given a menu to choose to go into the population menu or housing menu. From here the user can choose to display data from Apr 1, Jul 1 or the changes in population. (NOTE: the data sets from the csv files are unedited in their original format. In the current file the data does display some errors due to outlying data.)

Test cases:

Below are some test cases that were used to test the program.

Test Cases:	**User Input:**	**Predicted Output:**	**Actual Output:**	**Pass/Fail:**
1	random key input	Invalid input	Invalid input	Pass, fig 1
2	3	Invalid input	Invalid input	Pass, fig 1
3	1	You're in population, select column	You're in population, select column	Pass, fig 1
4	1	Invalid input	Invalid input	Pass, fig 2
5	random key input	Invalid input	Invalid input	Pass, fig 2
6	A, a	Display graph, count, mean, min and max	Display graph, count, mean, min and max	Pass, fig 2 **Outlier in data**
7	B, b	Display graph, count, mean, min and max	Display graph, count, mean, min and max	Pass, fig 3 **Outlier in data**
8	C, c	Display graph, count, mean, min and max	Display graph, count, mean, min and max	Pass, fig 4 **Outlier in data**
9	0	Exit to main menu	Exit to main menu	Pass, fig 5
10	2	In housing data, select from menu	In housing data, select from menu	Pass, fig 6
11	A,a	Display graph, count, mean, min and max	Display graph, count, mean, min and max	Pass, fig 6 **Outlier in data**
12	B, b	Display graph, count, mean, min and max	Display graph, count, mean, min and max	Pass, fig 7

13	C, c	Display graph, count, mean, min and max	Display graph, count, mean, min and max	Pass, fig 8
14	D, d	Display graph, count, mean, min and max	Display graph, count, mean, min and max	Pass, fig 9
15	E, e	Display graph, count, mean, min and max	Display graph, count, mean, min and max	Pass, fig 10
16	0	Exit to main menu	Exit to main menu	Pass, fig 11
17	0	Exit program, thank user	Exit program, thank user	Pass, fig 11

Below are the images associated with the above test cases.

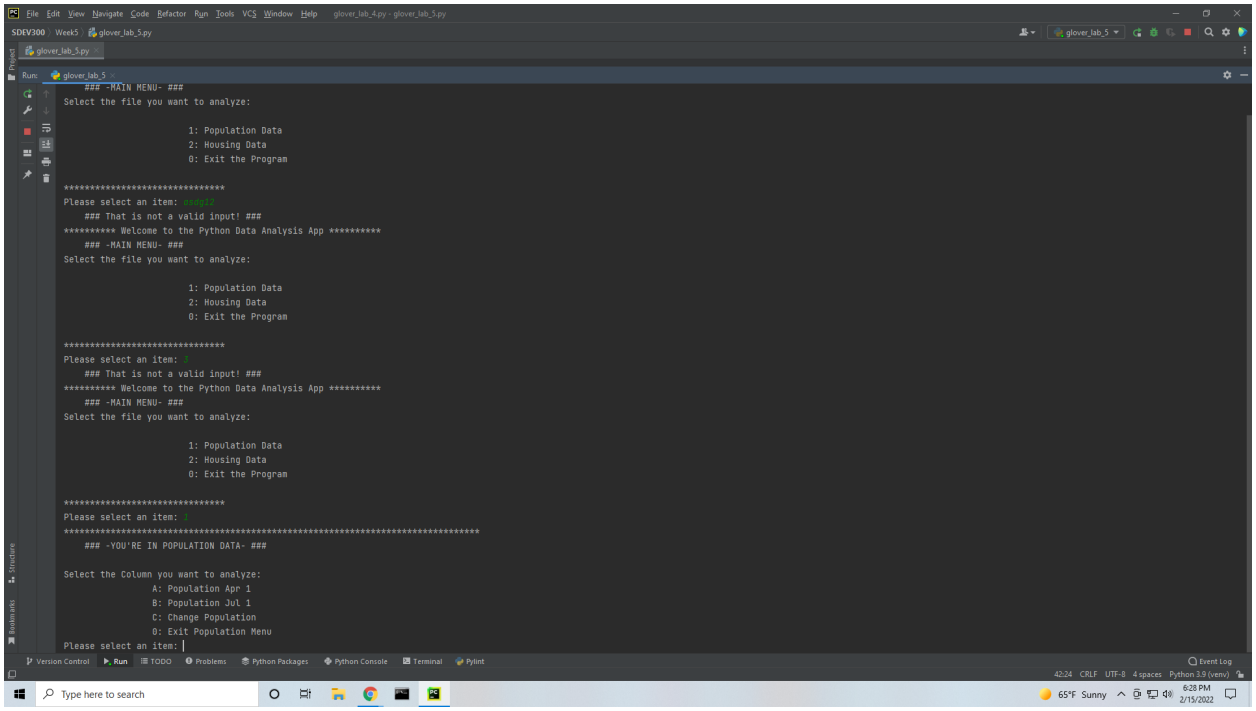

Fig 1

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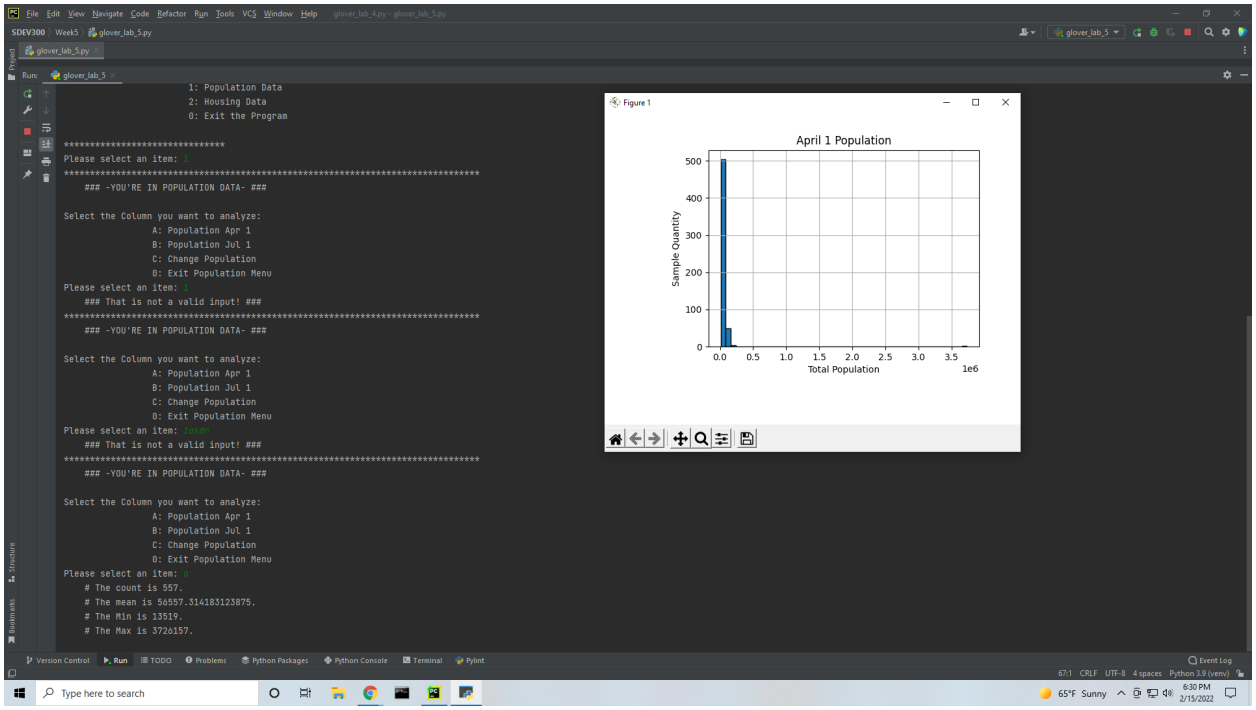


Fig 2, **Outlier in data**

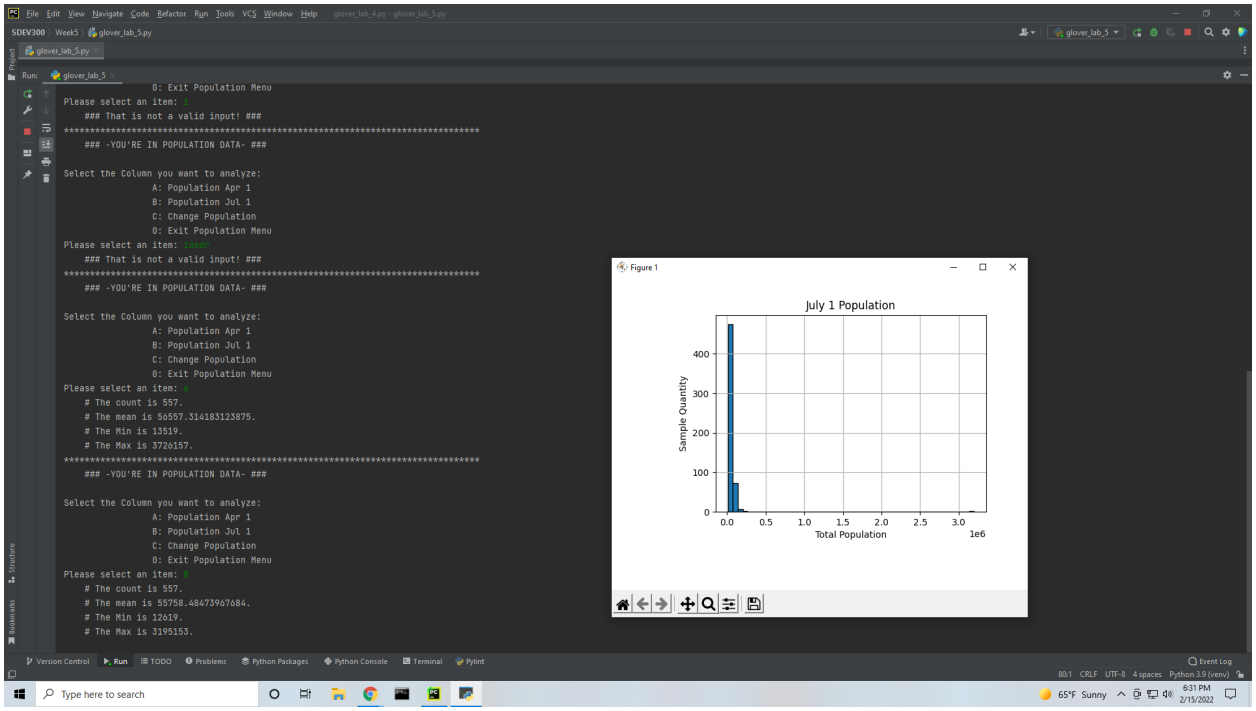


Fig 3, **Outlier in data**

Name: Corey Glover SDEV300-6382 Date: Feb 15, 2022

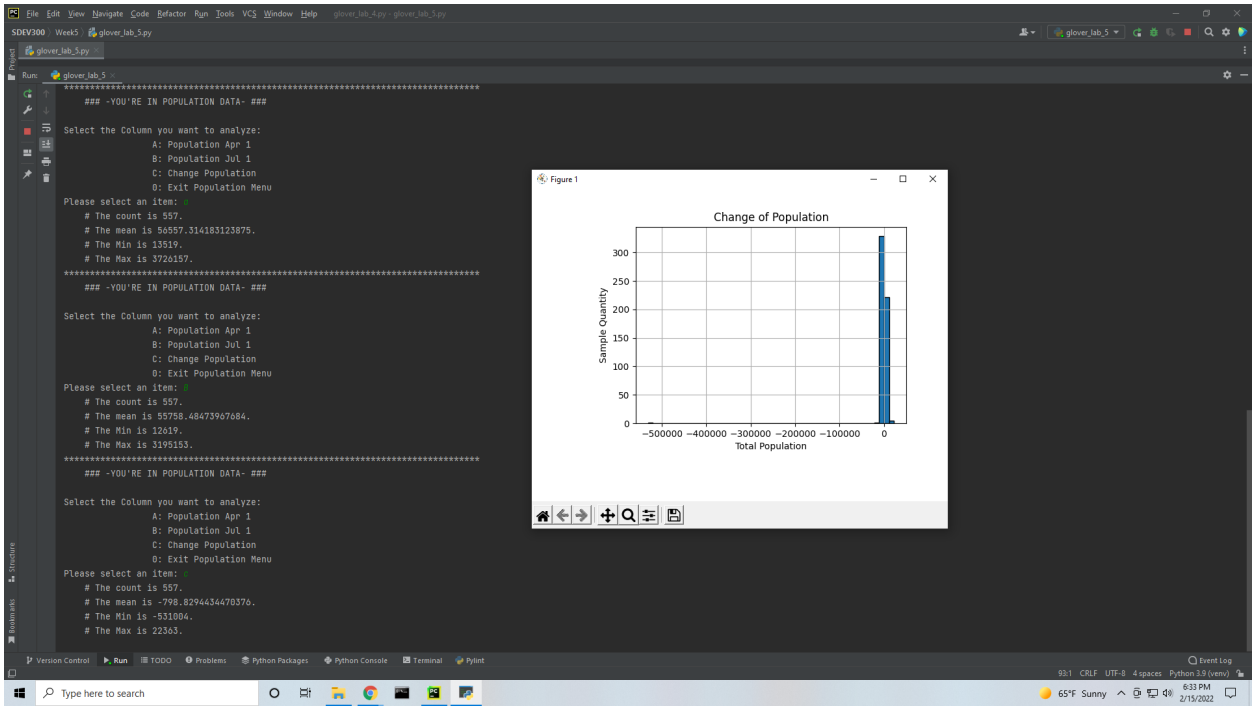


Fig 4, **Outlier in data**

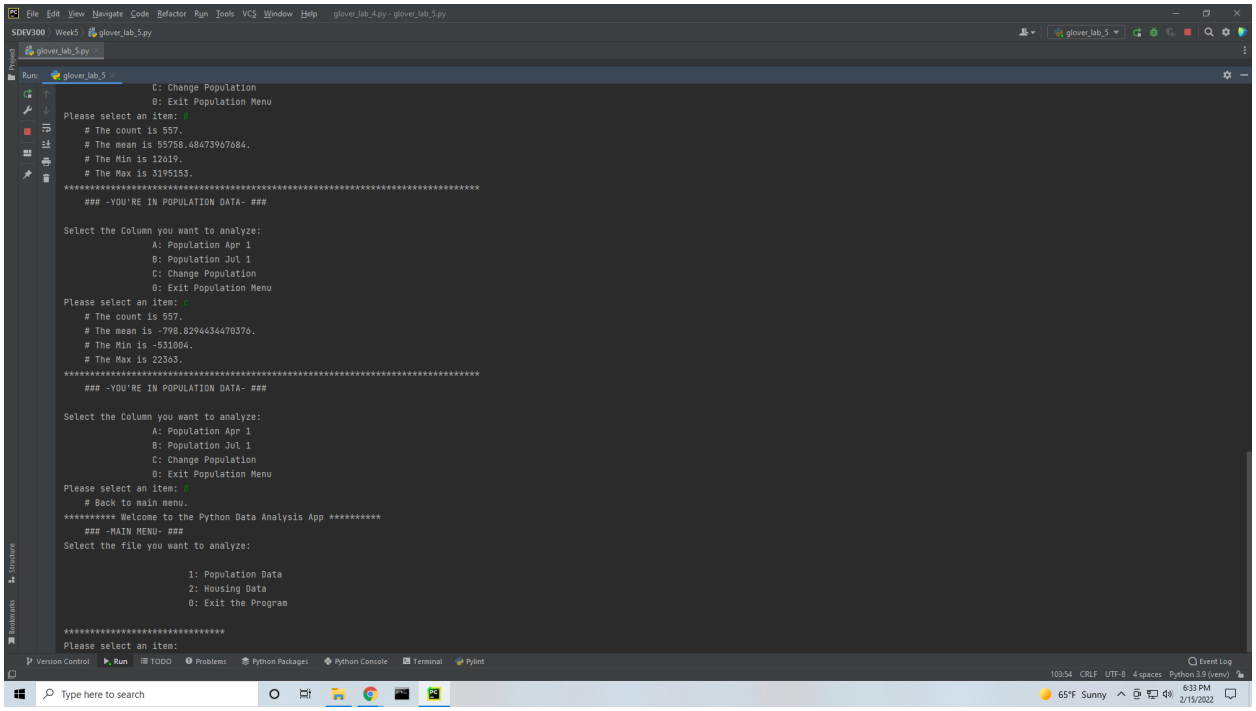


Fig 5

Name: Corey Glover SDEV300-6382 Date: Feb 15, 2022

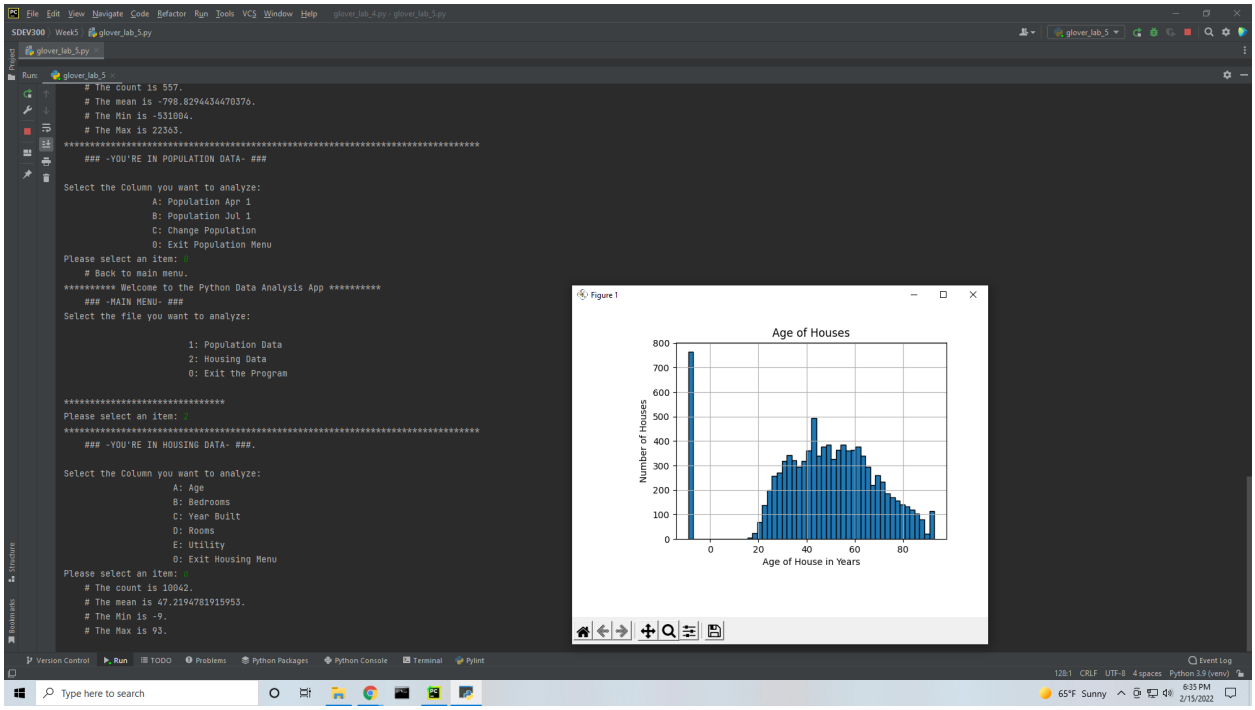


Fig 6, **Outlier in data**

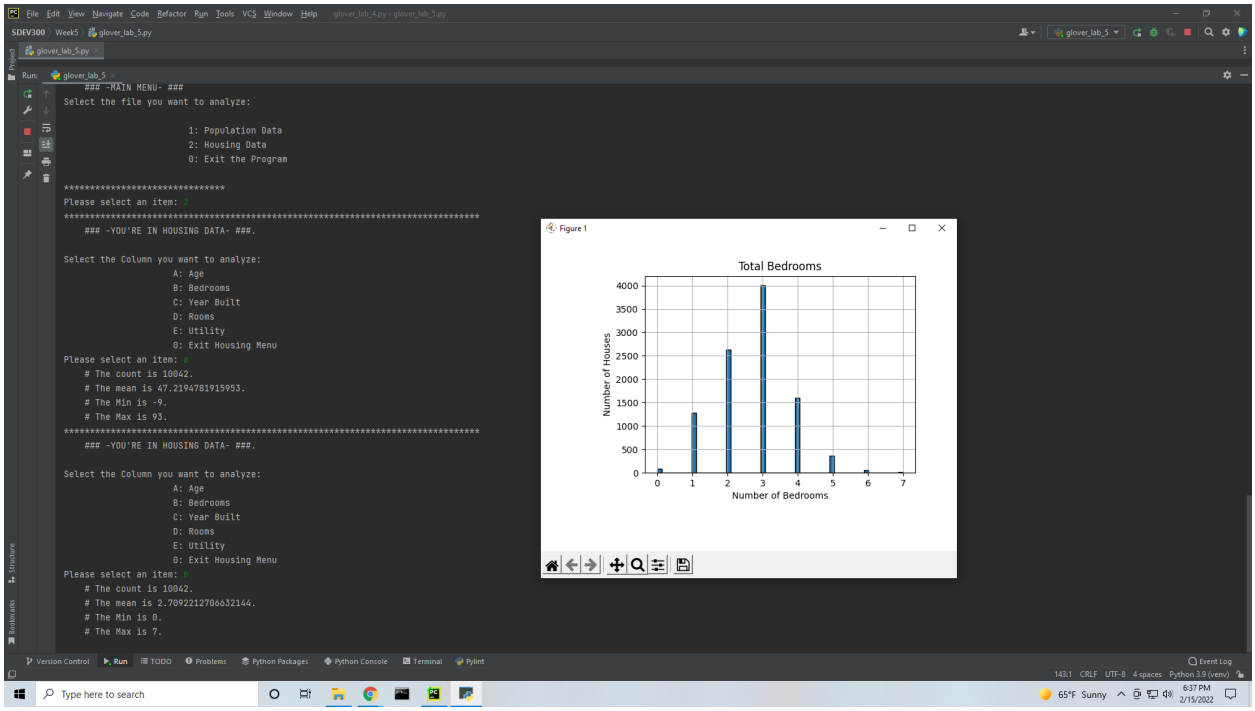


Fig 7

Name: Corey Glover SDEV300-6382 Date: Feb 15, 2022

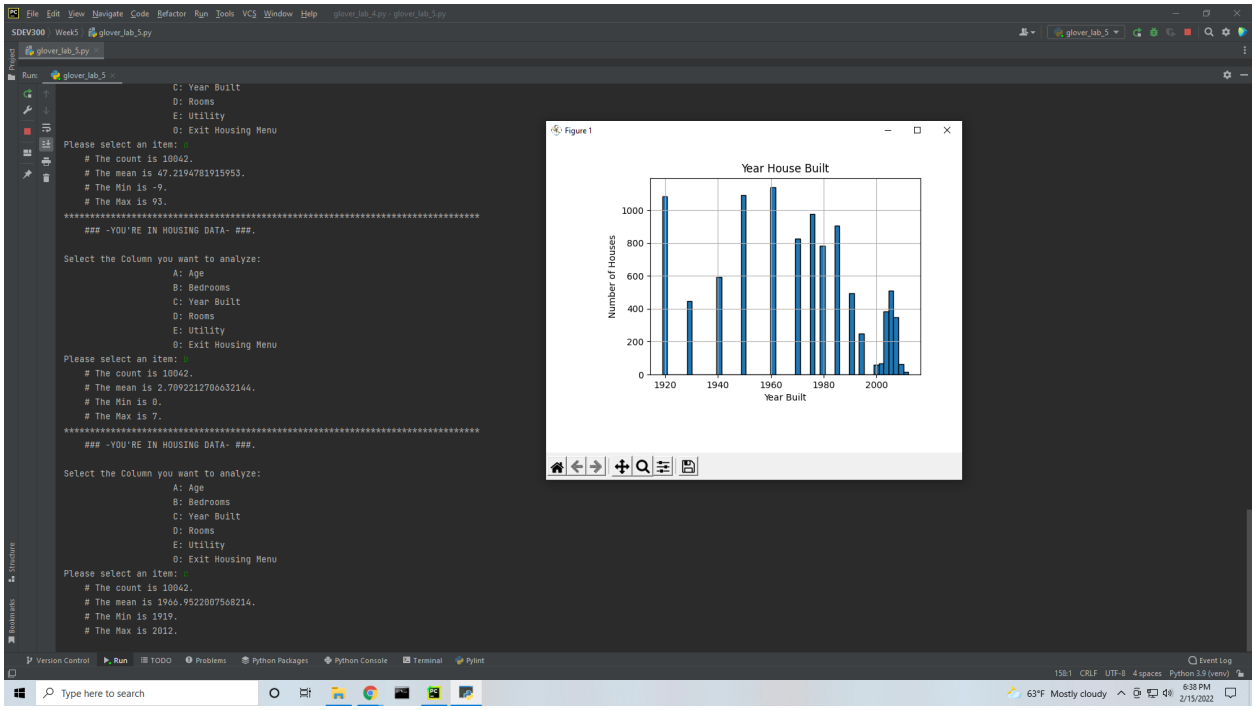


Fig 8

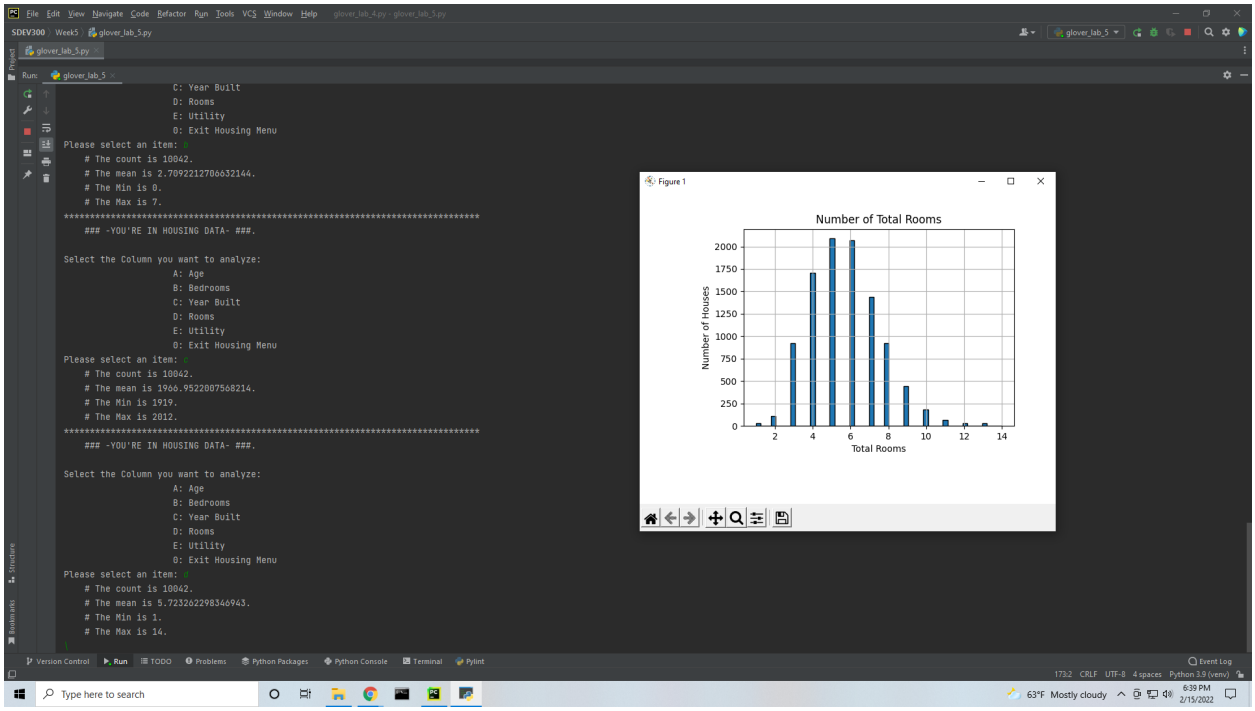


Fig 9

Name: Corey Glover SDEV300-6382 Date: Feb 15, 2022

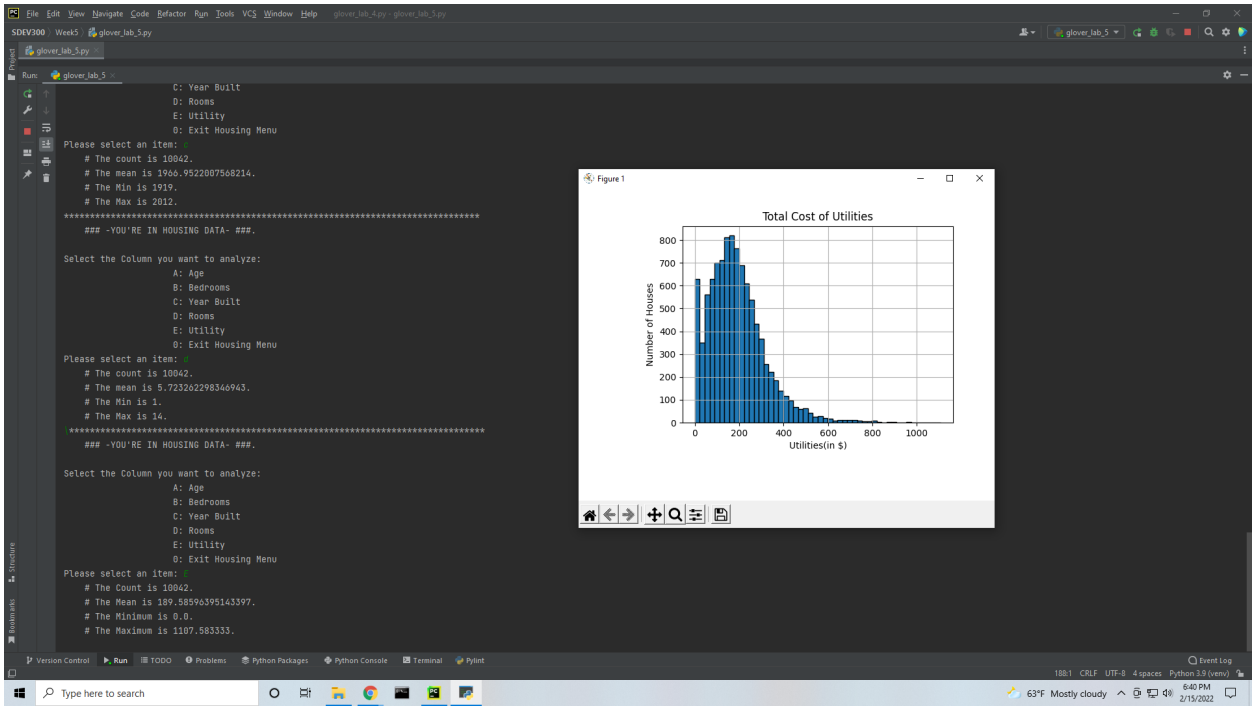


Fig 10

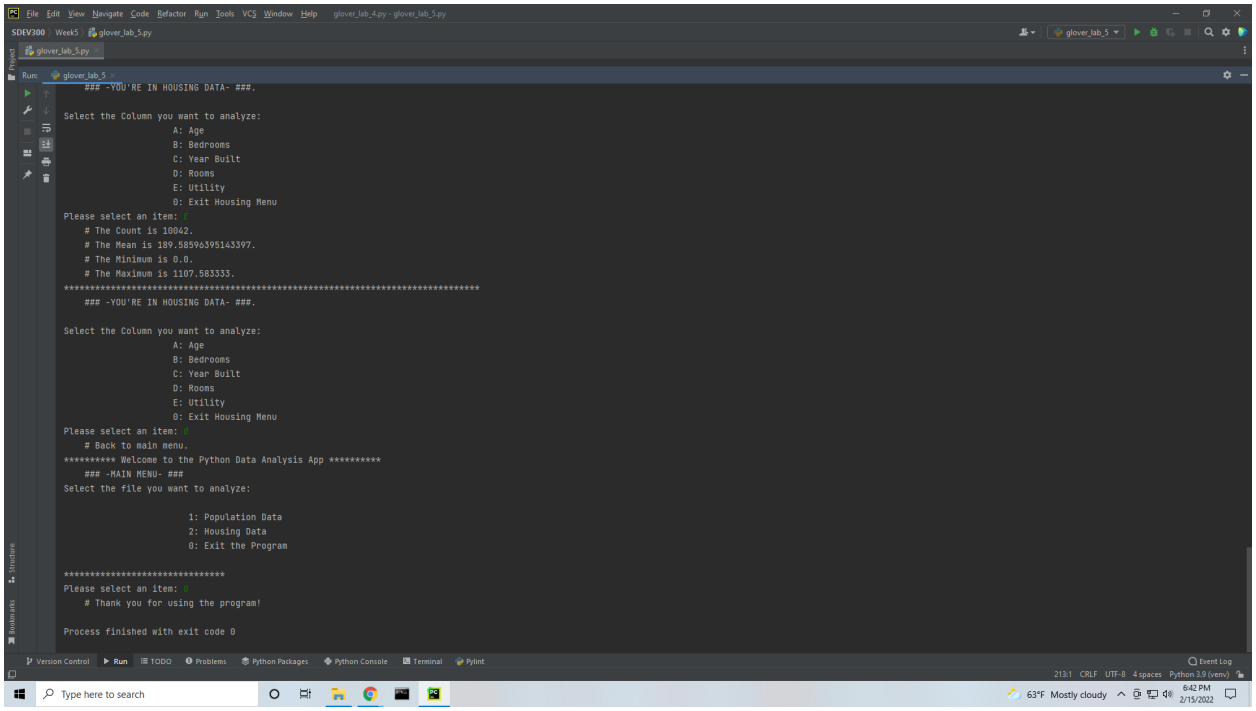
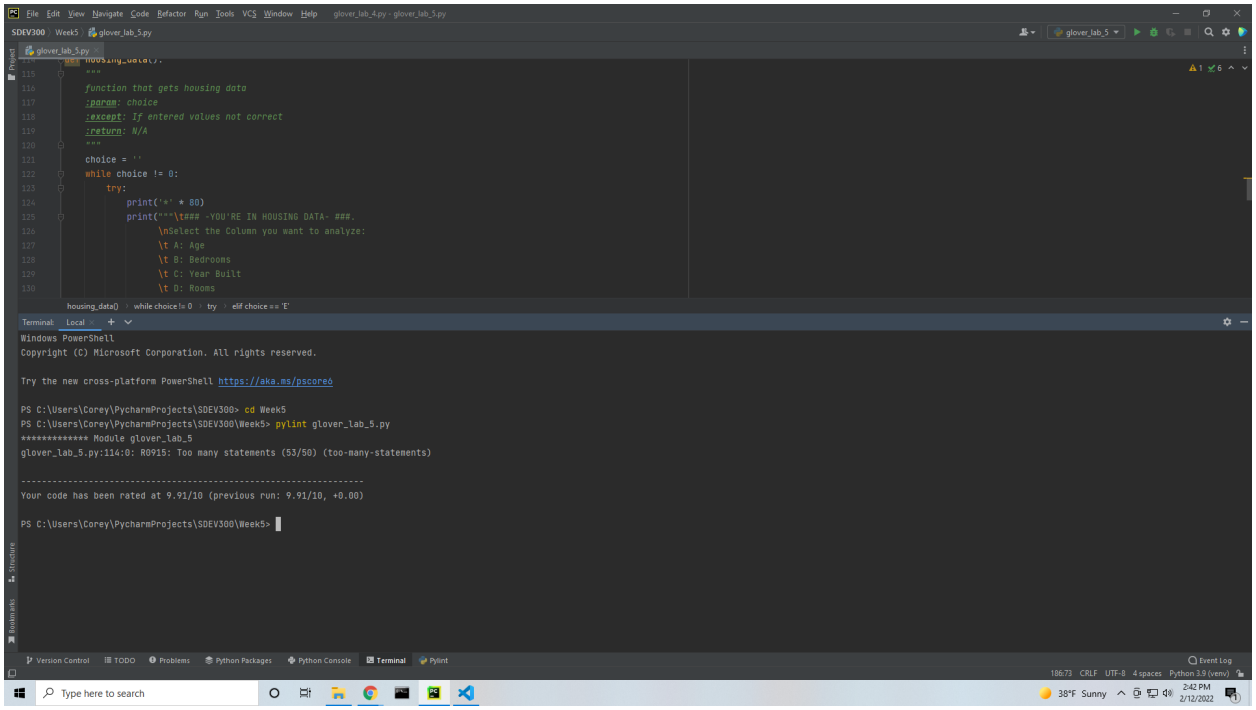


Fig 11

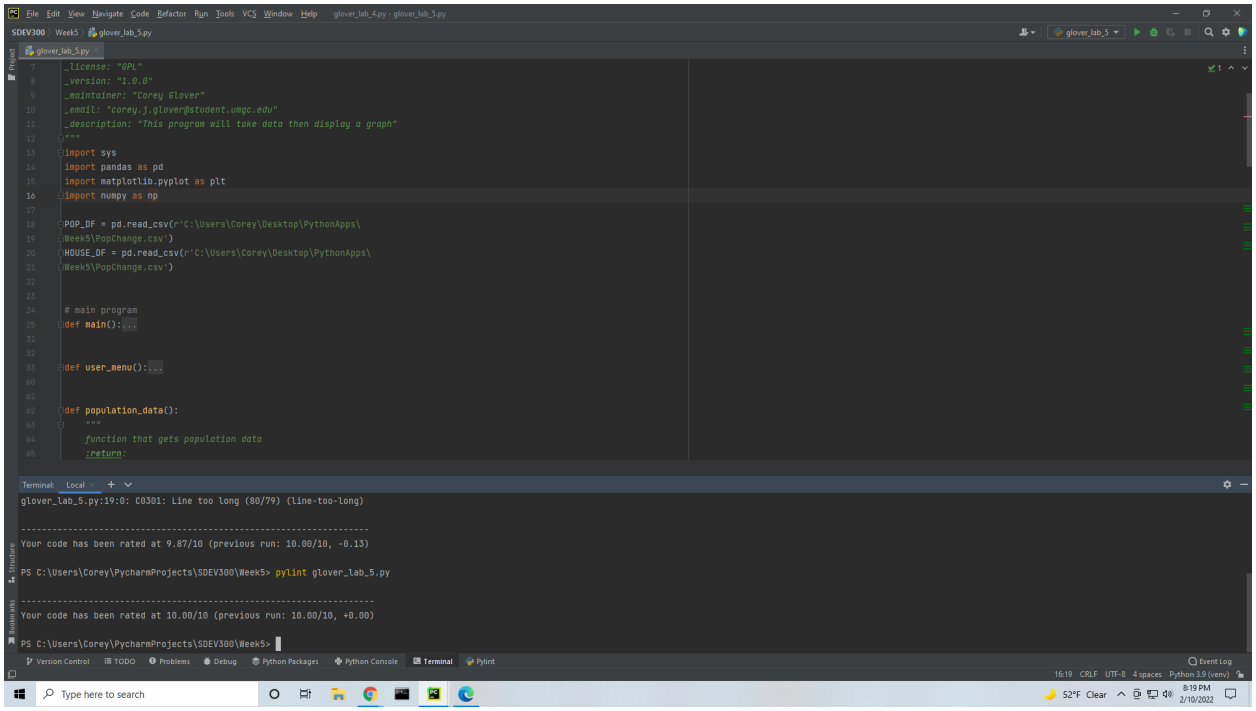
Pylint Testing

Below are some screenshots while writing, testing and running the program

Name: Corey Glover SDEV300-6382 Date: Feb 15, 2022

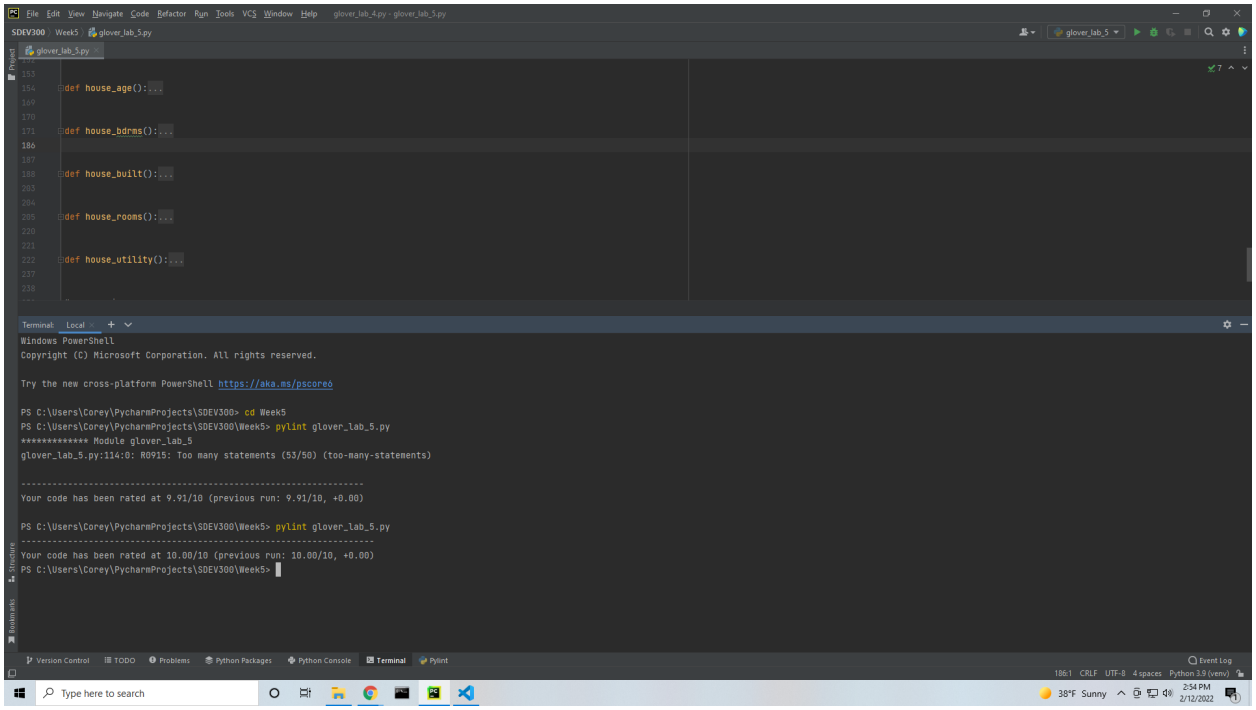


Pylint states too many statements in section. The was corrected by separating the program in to its multiple functions.



The issue here was that the line was too long in comparison to .pylintrc. Returned line to allow pylint to pass.

Name: Corey Glover SDEV300-6382 Date: Feb 15, 2022



Final run of pylint, 10/10