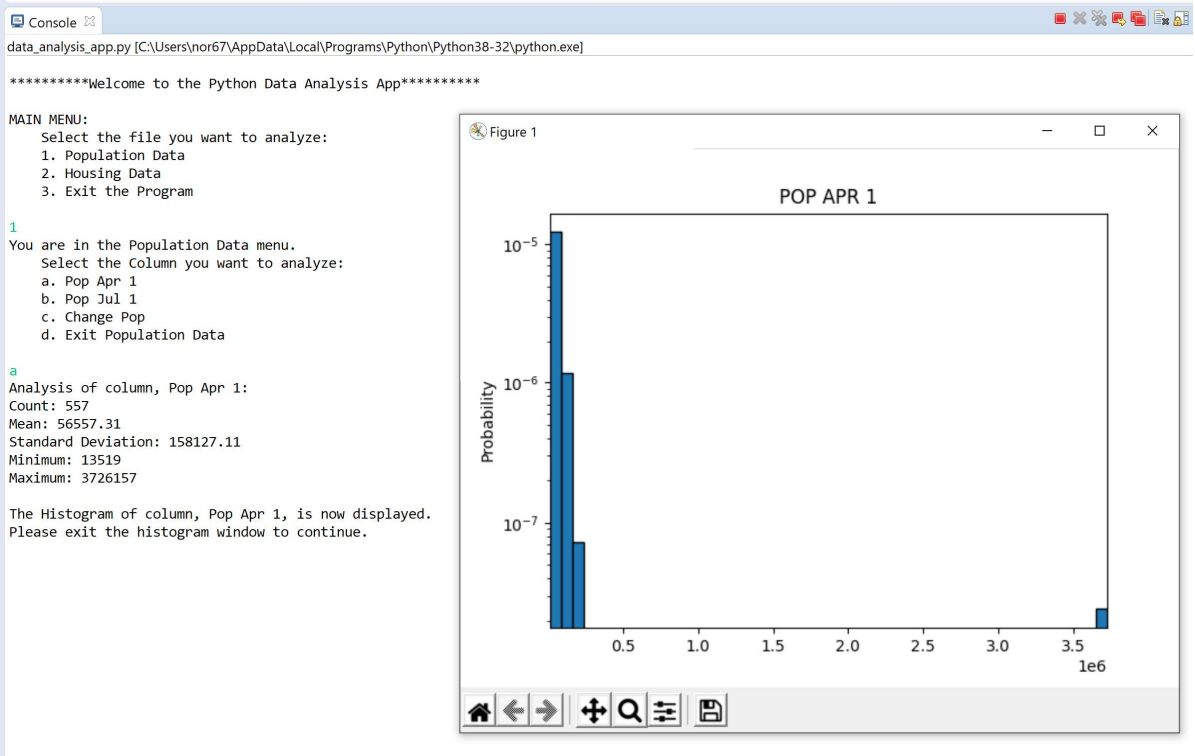
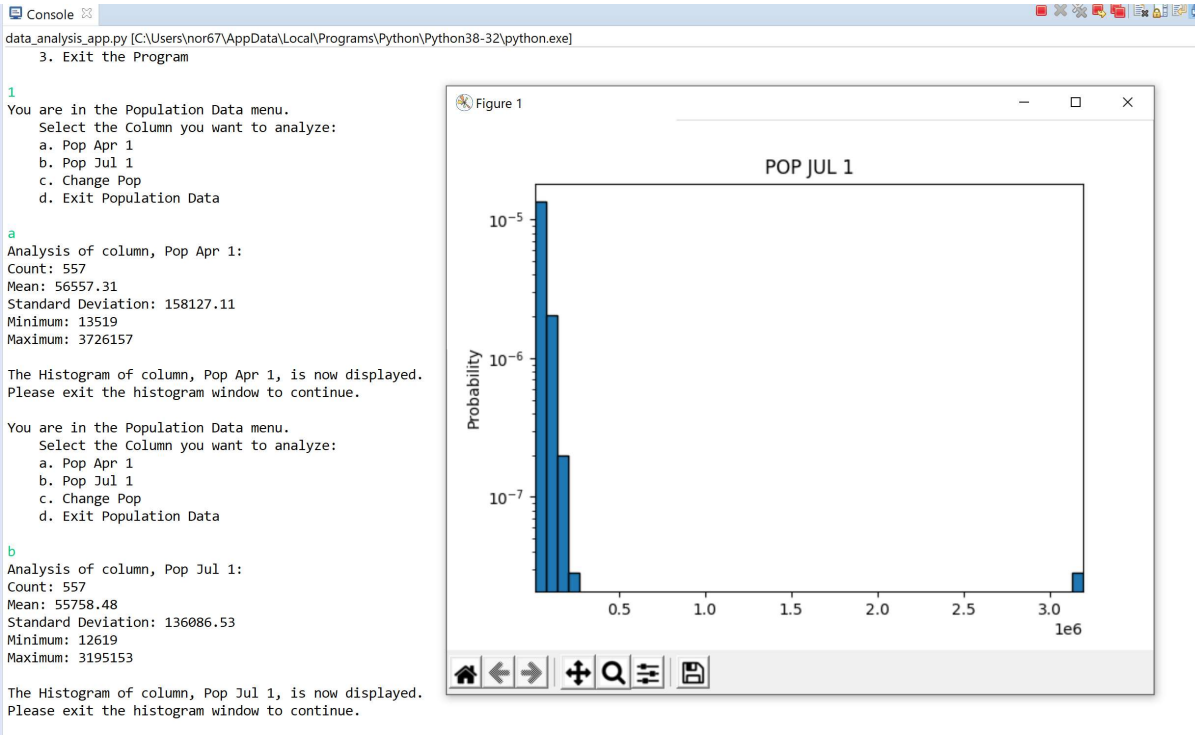
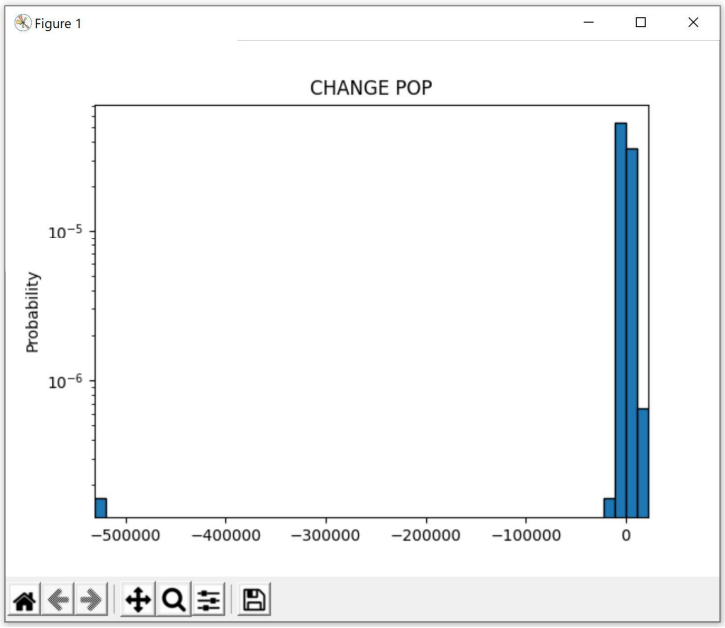
Case 1: run through data and exit menus



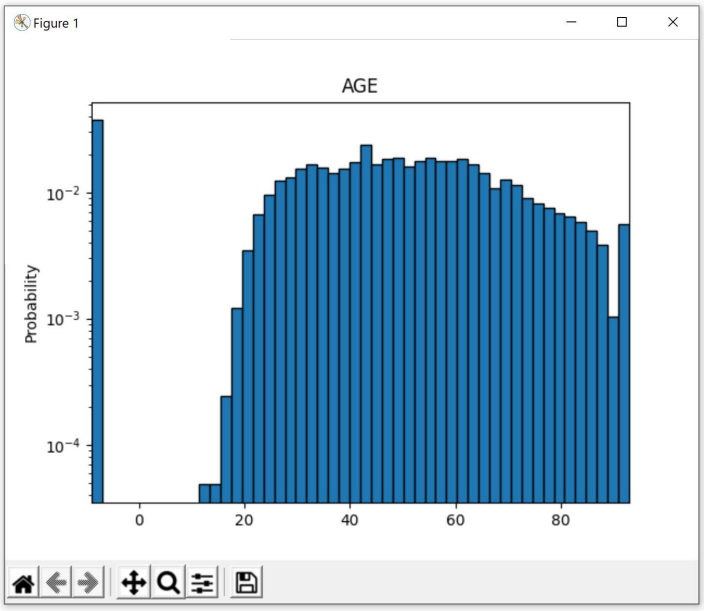


Case 1

```
Console
data_analysis_app.py [C:\Users\nor67\AppData\Local\Programs\Python\Python38-32\python.exe]
The Histogram of column, Pop Apr 1, is now displayed.
Please exit the histogram window to continue.

You are in the Population Data menu.
    Select the Column you want to analyze:
    a. Pop Apr 1
    b. Pop Jul 1
    c. Change Pop
    d. Exit Population Data

b
Analysis of column, Pop Jul 1:
Count: 557
Mean: 55758.48
Standard Deviation: 136086.53
Minimum: 12619
Maximum: 3195153

The Histogram of column, Pop Jul 1, is now displayed.
Please exit the histogram window to continue.

You are in the Population Data menu.
    Select the Column you want to analyze:
    a. Pop Apr 1
    b. Pop Jul 1
    c. Change Pop
    d. Exit Population Data

c
Analysis of column, Change Pop:
Count: 557
Mean: -798.83
Standard Deviation: 22711.35
Minimum: -531004
Maximum: 22363

The Histogram of column, Change Pop, is now displayed.
Please exit the histogram window to continue.
```



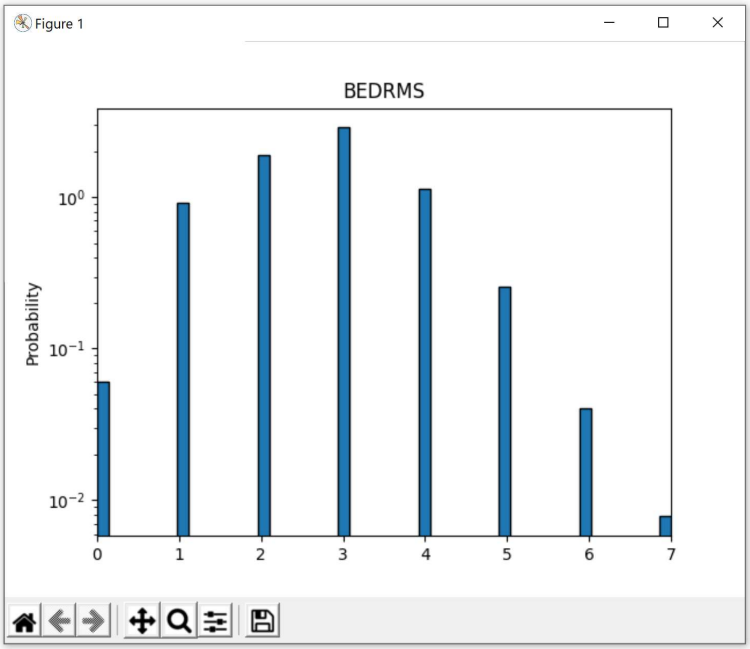

```
Console
data_analysis_app.py [C:\Users\nor67\AppData\Local\Programs\Python\Python38-32\python.exe]

You are in the Population Data menu.
    Select the Column you want to analyze:
    a. Pop Apr 1
    b. Pop Jul 1
    c. Change Pop
    d. Exit Population Data

d
You selected to exit the Population Data menu.

MAIN MENU:
    Select the file you want to analyze:
    1. Population Data
    2. Housing Data
    3. Exit the Program

2
You are in the Housing Data menu.
    Select the Column you want to analyze:
    a. AGE
    b. BEDRMS
    c. BUILT
    d. ROOMS
    e. UTILITY
    f. NUNITS
    g. WEIGHT
    h. Exit Housing Data
a
Analysis of column, AGE:
Count: 10042
Mean: 47.22
Standard Deviation: 23.15
Minimum: -9
Maximum: 93

The Histogram of column, AGE, is now displayed.
Please exit the histogram window to continue.
```



Case 1

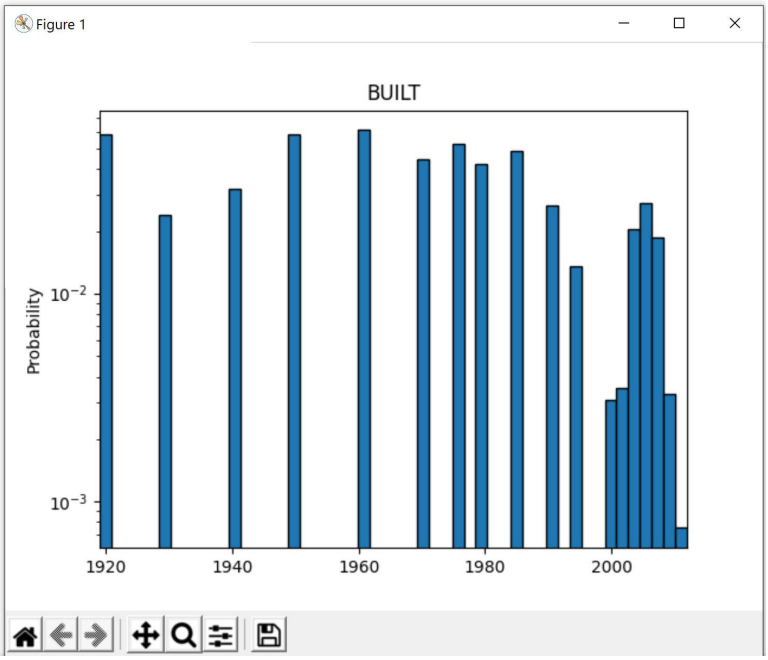
Console

```
data_analysis_app.py [C:\Users\nor67\AppData\Local\Programs\Python\Python38-32\python.exe]
    b. BEDRMS
    c. BUILT
    d. ROOMS
    e. UTILITY
    f. NUNITS
    g. WEIGHT
    h. Exit Housing Data
a
Analysis of column, AGE:
Count: 10042
Mean: 47.22
Standard Deviation: 23.15
Minimum: -9
Maximum: 93

The Histogram of column, AGE, is now displayed.
Please exit the histogram window to continue.

You are in the Housing Data menu.
    Select the Column you want to analyze:
    a. AGE
    b. BEDRMS
    c. BUILT
    d. ROOMS
    e. UTILITY
    f. NUNITS
    g. WEIGHT
    h. Exit Housing Data
b
Analysis of column, BEDRMS:
Count: 10042
Mean: 2.71
Standard Deviation: 1.07
Minimum: 0
Maximum: 7

The Histogram of column, BEDRMS, is now displayed.
Please exit the histogram window to continue.
```



Console

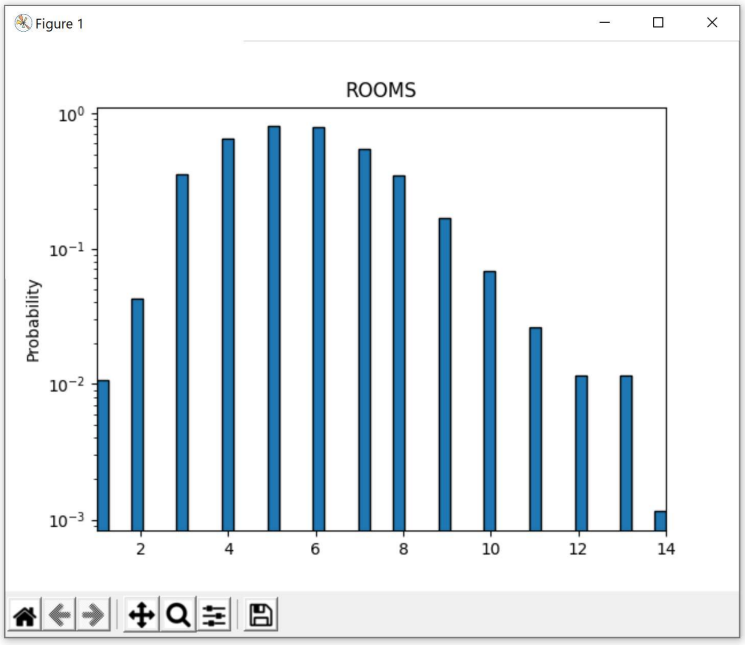
```
data_analysis_app.py [C:\Users\nor67\AppData\Local\Programs\Python\Python38-32\python.exe]
    b. BEDRMS
    c. BUILT
    d. ROOMS
    e. UTILITY
    f. NUNITS
    g. WEIGHT
    h. Exit Housing Data
b
Analysis of column, BEDRMS:
Count: 10042
Mean: 2.71
Standard Deviation: 1.07
Minimum: 0
Maximum: 7

The Histogram of column, BEDRMS, is now displayed.
Please exit the histogram window to continue.

You are in the Housing Data menu.
    Select the Column you want to analyze:
    a. AGE
    b. BEDRMS
    c. BUILT
    d. ROOMS
    e. UTILITY
    f. NUNITS
    g. WEIGHT
    h. Exit Housing Data
c
Analysis of column, BUILT:
Count: 10042
Mean: 1966.95
Standard Deviation: 26.31
Minimum: 1919
Maximum: 2012

The Histogram of column, BUILT, is now displayed.
Please exit the histogram window to continue.
```



Case 1

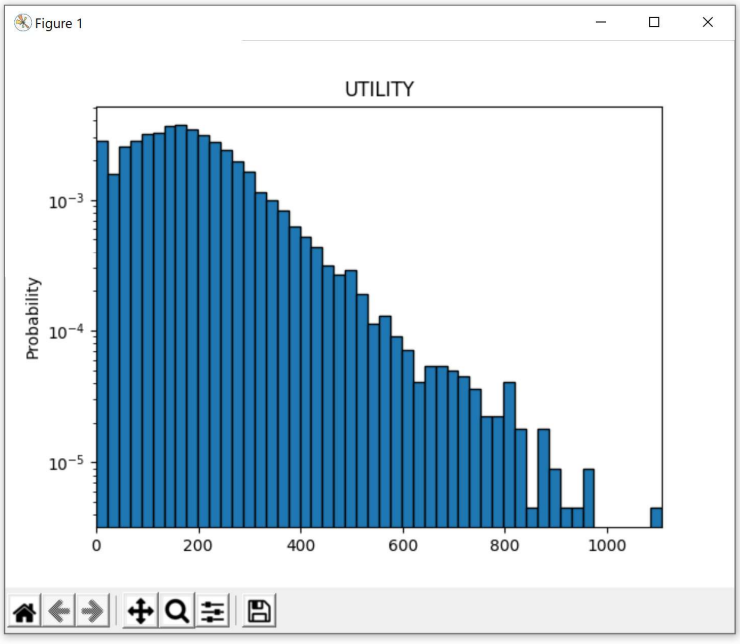
Console

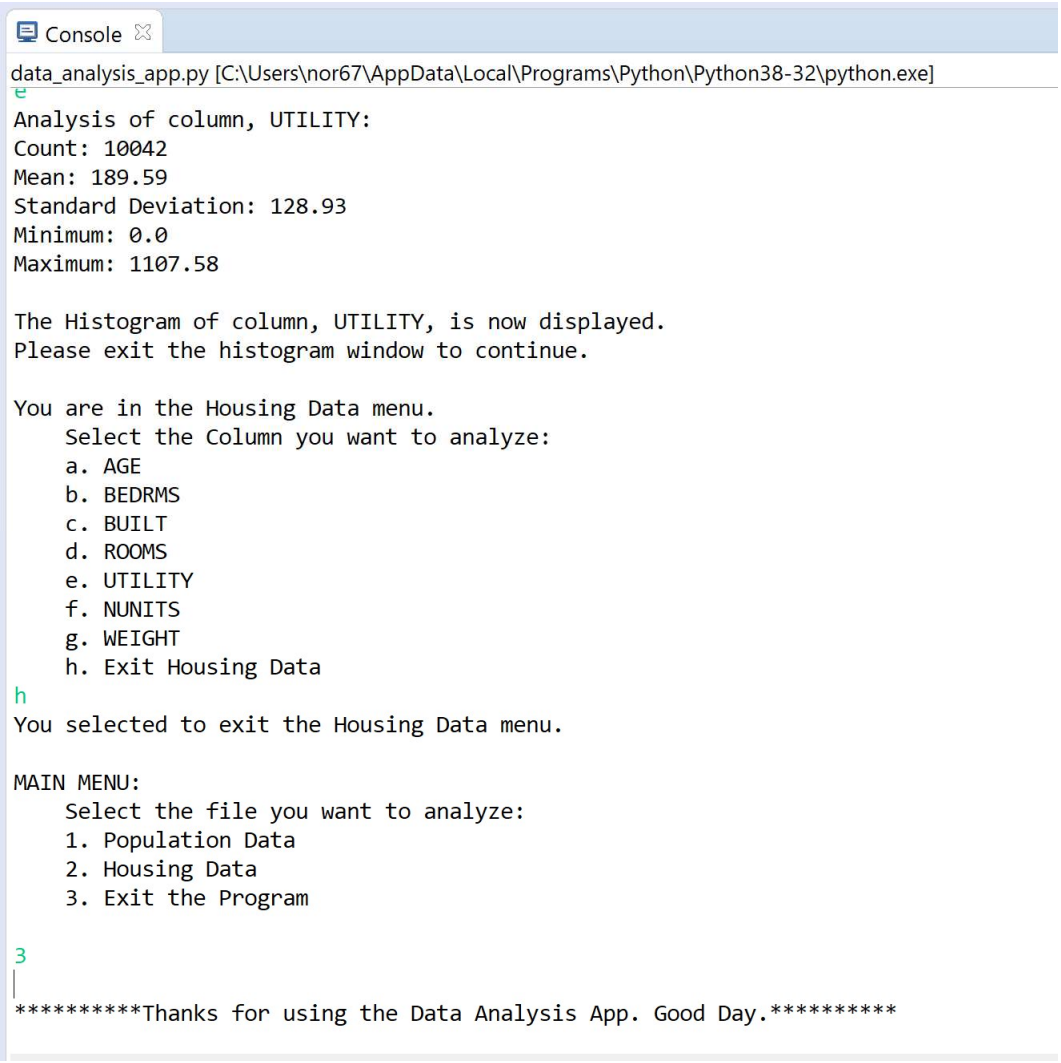
```
data_analysis_app.py [C:\Users\nor67\AppData\Local\Programs\Python\Python38-32\python.exe]
    b. BEDRMS
    c. BUILT
    d. ROOMS
    e. UTILITY
    f. NUNITS
    g. WEIGHT
    h. Exit Housing Data
c
Analysis of column, BUILT:
Count: 10042
Mean: 1966.95
Standard Deviation: 26.31
Minimum: 1919
Maximum: 2012

The Histogram of column, BUILT, is now displayed.
Please exit the histogram window to continue.

You are in the Housing Data menu.
    Select the Column you want to analyze:
    a. AGE
    b. BEDRMS
    c. BUILT
    d. ROOMS
    e. UTILITY
    f. NUNITS
    g. WEIGHT
    h. Exit Housing Data
d
Analysis of column, ROOMS:
Count: 10042
Mean: 5.72
Standard Deviation: 1.88
Minimum: 1
Maximum: 14

The Histogram of column, ROOMS, is now displayed.
Please exit the histogram window to continue.
```



Console

```
data_analysis_app.py [C:\Users\nor67\AppData\Local\Programs\Python\Python38-32\python.exe]
    b. BEDRMS
    c. BUILT
    d. ROOMS
    e. UTILITY
    f. NUNITS
    g. WEIGHT
    h. Exit Housing Data
d
Analysis of column, ROOMS:
Count: 10042
Mean: 5.72
Standard Deviation: 1.88
Minimum: 1
Maximum: 14

The Histogram of column, ROOMS, is now displayed.
Please exit the histogram window to continue.

You are in the Housing Data menu.
    Select the Column you want to analyze:
    a. AGE
    b. BEDRMS
    c. BUILT
    d. ROOMS
    e. UTILITY
    f. NUNITS
    g. WEIGHT
    h. Exit Housing Data
e
Analysis of column, UTILITY:
Count: 10042
Mean: 189.59
Standard Deviation: 128.93
Minimum: 0.0
Maximum: 1107.58

The Histogram of column, UTILITY, is now displayed.
Please exit the histogram window to continue.
```




Console
data_analysis_app.py [C:\Users\nor67\AppData\Local\Programs\Python\Python38-32\python.exe]
e
Analysis of column, UTILITY:
Count: 10042
Mean: 189.59
Standard Deviation: 128.93
Minimum: 0.0
Maximum: 1107.58
The Histogram of column, UTILITY, is now displayed.
Please exit the histogram window to continue.
You are in the Housing Data menu.
Select the Column you want to analyze:
a. AGE
b. BEDRMS
c. BUILT
d. ROOMS
e. UTILITY
f. NUNITS
g. WEIGHT
h. Exit Housing Data
h
You selected to exit the Housing Data menu.
MAIN MENU:
Select the file you want to analyze:
1. Population Data
2. Housing Data
3. Exit the Program
3
**********Thanks for using the Data Analysis App. Good Day.**********

Case 2: invalid inputs

Console

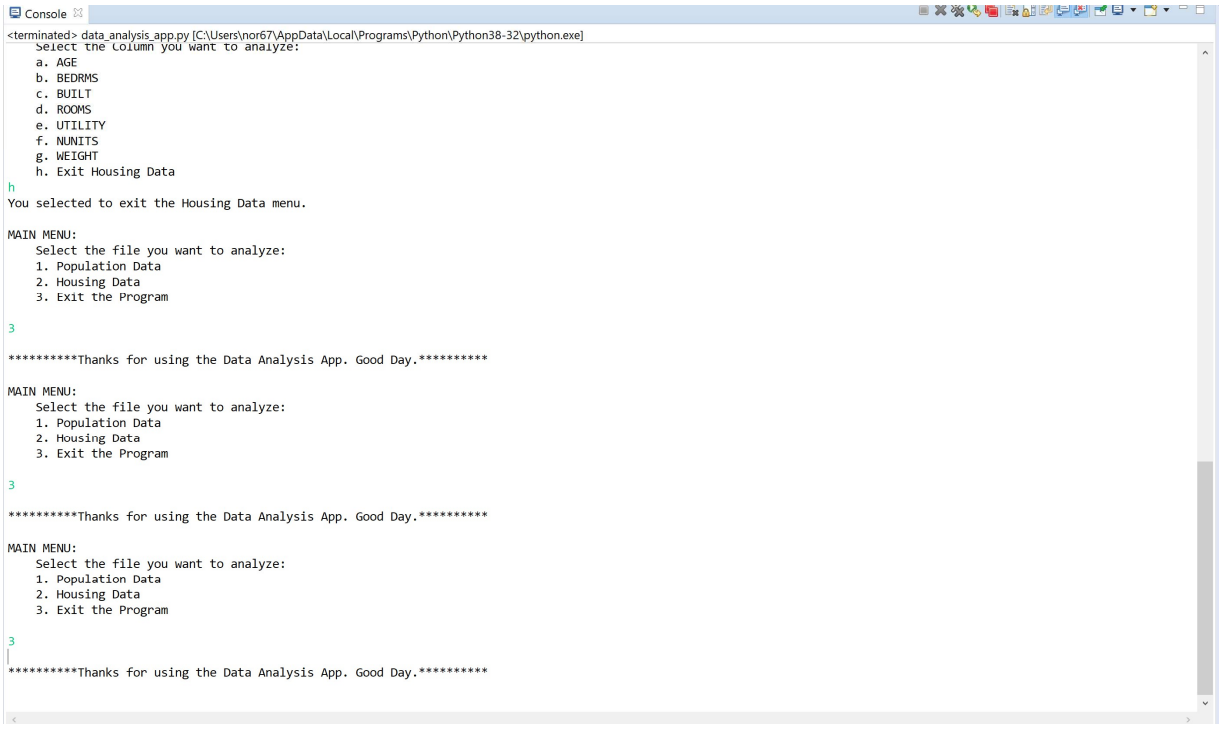
data_analysis_app.py [C:\Users\nor67\AppData\Local\Programs\Python\Pythc

```
**********Welcome to the Python Data Analysis App********

MAIN MENU:
    Select the file you want to analyze:
    1. Population Data
    2. Housing Data
    3. Exit the Program

4s7
Invalid Entry.
Enter 1, 2, or 3: 1
You are in the Population Data menu.
    Select the Column you want to analyze:
    a. Pop Apr 1
    b. Pop Jul 1
    c. Change Pop
    d. Exit Population Data

4s7
Invalid Entry.
Enter a, b, c, or d: a
Analysis of column, Pop Apr 1:
Count: 557
Mean: 56557.31
Standard Deviation: 158127.11
Minimum: 13519
Maximum: 3726157

The Histogram of column, Pop Apr 1, is now displayed.
Please exit the histogram window to continue.

You are in the Population Data menu.
    Select the Column you want to analyze:
    a. Pop Apr 1
    b. Pop Jul 1
    c. Change Pop
    d. Exit Population Data

d
You selected to exit the Population Data menu.
```

Case 2

Console

data_analysis_app.py [C:\Users\nor67\AppData\Local\Programs\Pytho

```
d
You selected to exit the Population Data menu.

MAIN MENU:
    Select the file you want to analyze:
    1. Population Data
    2. Housing Data
    3. Exit the Program

2
You are in the Housing Data menu.
    Select the Column you want to analyze:
    a. AGE
    b. BEDRMS
    c. BUILT
    d. ROOMS
    e. UTILITY
    f. NUNITS
    g. WEIGHT
    h. Exit Housing Data
4s7
Invalid Entry.
Enter a, b, c, d, e, or f: a
Analysis of column, AGE:
Count: 10042
Mean: 47.22
Standard Deviation: 23.15
Minimum: -9
Maximum: 93

The Histogram of column, AGE, is now displayed.
Please exit the histogram window to continue.

You are in the Housing Data menu.
    Select the Column you want to analyze:
    a. AGE
    b. BEDRMS
    c. BUILT
    d. ROOMS
```

Strange Behavior: After exiting the main menu comes up again, but stops after the third time. I do not understand why the main menu keeps coming up. The exit function does not call the main menu.