Mini Project 1 Justin Szabo

Datasets

Plastic Bag Dataset:
https://data.gov.uk/dataset/single-use-plastic-carrier-bags-charge-data-for-england
"These datasets provide the information submitted to government about single use carrier bag charging in England, including the number and proceeds of single-use plastic carrier bags issued/charged by retailers. It includes mandatory data on bags sold under the charge and voluntary data on submitted by retailers."

Stop and Search Northern Ireland:
https://data.gov.uk/dataset/stop-and-search-statistics-2016-17
"Stop and Search is an operational tool used to prevent, detect and investigate crime as well as to bring offenders to justice. Police officers have a legal power to stop and search members of the public in certain circumstances, from dealing with incidents of anti-social behavior through to countering terrorism. PSNI Statistics Branch collate and report statistics on the number of persons stopped, searched, questioned and arrested under the main legislative powers."

Newcastle Electricity Consumption:
https://data.gov.uk/dataset/newcastle-city-library-energy-consumption
"Monthly energy consumption (electricity, gas, water) at Newcastle City Library from January 2011" Electricity from 2011 was used.
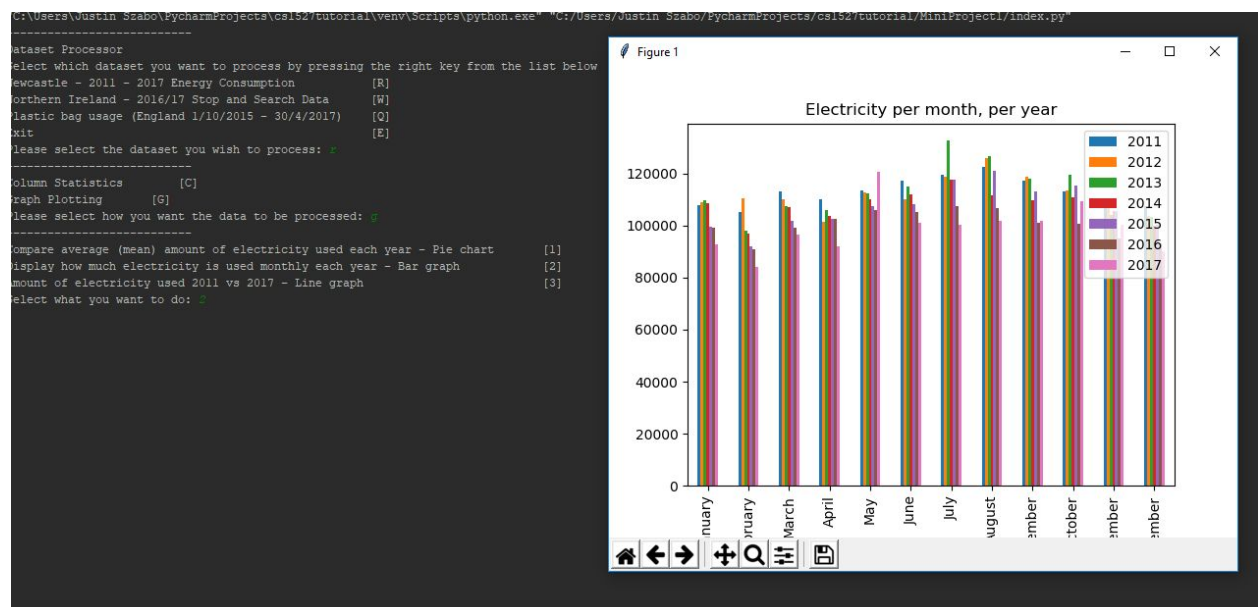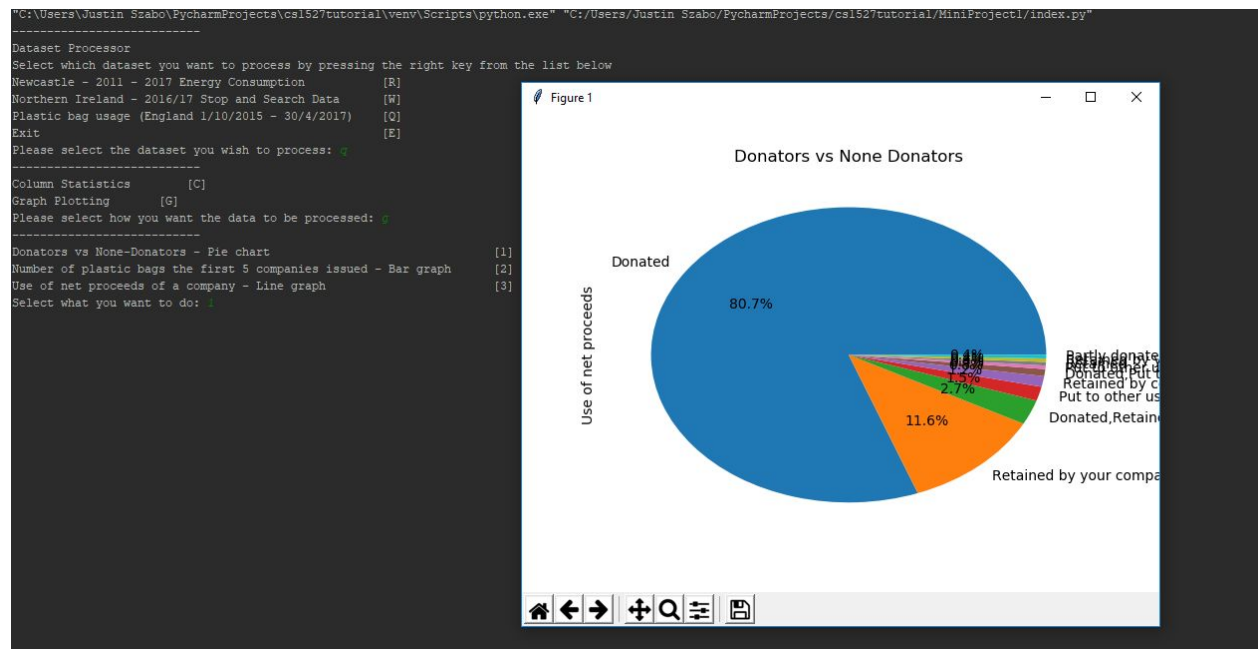
Capabilities

The program is capable of performing basic statistical analysis on each dataset. It can also perform more complicated statistical analysis - including making totals in new columns - on each dataset. It also supports the analysis and plotting of both categorical and numerical data. The program supports basic line graphs and bar charts, as well as some other types of charts - for example, pie charts.
The program is also capable of performing more complex data analysis including taking the data from different datasets and mapping them together performing more complex graphs with some selected data.

Screen shots

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Dataset Processor
Select which dataset you want to process by pressing the right key from the list below
Newcastle - 2011 - 2017 Energy Consumption          [R]
Northern Ireland - 2016/17 Stop and Search Data     [W]
Plastic bag usage (England 1/10/2015 - 30/4/2017)   [Q]
Exit                                                [E]
Please select the dataset you wish to process: q
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Column Statistics        [C]
Graph Plotting           [G]
Please select how you want the data to be processed: g
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Donators vs None-Donators - Pie chart                               [1]
Number of plastic bags the first 5 companies issued - Bar graph     [2]
Use of net proceeds of a company - Line graph                       [3]
Select what you want to do: 1
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Dataset Processor
Select which dataset you want to process by pressing the right key from the list below
Newcastle - 2011 - 2017 Energy Consumption          [R]
Northern Ireland - 2016/17 Stop and Search Data     [W]
Plastic bag usage (England 1/10/2015 - 30/4/2017)   [Q]
Exit                                                [E]
Please select the dataset you wish to process: r
----------------------------
Column Statistics        [C]
Graph Plotting           [G]
Please select how you want the data to be processed: g
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Compare average (mean) amount of electricity used each year - Pie chart    [1]
Display how much electricity is used monthly each year - Bar graph         [2]
Amount of electricity used 2011 vs 2017 - Line graph                       [3]
Select what you want to do: 2
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"C:\Users\Justin Szabo\PycharmProjects\cs1527tutorial\venv\Scripts\python.exe" "C:/Users/Justin Szabo/PycharmProjects/cs1527tutorial/MiniProject1/index.py"
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Dataset Processor
Select which dataset you want to process by pressing the right key from the list below
Newcastle - 2011 - 2017 Energy Consumption            [R]
Northern Ireland - 2016/17 Stop and Search Data       [W]
Plastic bag usage (England 1/10/2015 - 30/4/2017)     [Q]
Exit                                                  [E]
Please select the dataset you wish to process: w
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Column Statistics        [C]
Graph Plotting           [G]
Please select how you want the data to be processed: g
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Males Searched vs. Females Searched - Pie chart                     [1]
Under which legislation were people searched - Bar graph           [2]
Number of people searched over financial year - Line graph         [3]
Select what you want to do: 3
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