Opportunity and Significance

For our project, we are working with data regarding demolitions in Detroit from 2014 to present. We are creating a matlab program to analyze the data set.

Technical Objectives

1. Automatically load the data being analyzed
2. Create Visual Representations of data such as graphs and tables
3. Calling functions within scripts
4. Manipulate and analyze data via user defined functions containing:
   • If-Else Statement
   • Switch Case
   • For Loop
   • While Loop
   • Nested Loop

Related Work and State of Practice

Currently, we are writing functions to sort and analyze our data set. That include sections to display visual representations of said analyses.

Technical Approach, Accomplishments and Results

Our project is currently designed to:

• Find the average price of demolitions based on the contactor and display as a table

• Compute the average price of demolitions in each council district and display the information as a table and bar graph

• Compute how many demolitions each contractor performed in each council district and display as pie charts.

• Compare how the average price of demolition varies based on the property type.

• Create a scatter plot of longitude versus latitude and use curve fitting to develop an equation for the graph.

• We will then take our functions that we created and put them all in a main script for it to run and ask the user to choose what they want to see with our project.

Next Steps for Development and Test

The end goal of this project is to create a program would allow the user to decide what type of data manipulation or analysis they wish to perform and display the appropriate results.

Commercialization Plan & Partners

Our project would be most relevant to Detroit decision makers such as City Council. The project could be used to aid in decisions regarding future demolitions such as which contractors to use for what jobs based on past prices.

Our data set contains over thirteen thousand data points so we need to have our code be very efficient.

References

Our data set can be found at:

https://data.detroitmi.gov/Property-Parcels/Detroit-Demolitions/rv44-e9dl/data