**Northeastern University**

**College of Professional Studies**



**ALY-6070 Communication and visualization For Data Analysis**

**Final Project Initial Analysis**

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Introduction

In the initial analysis for the final project we are working with “Boston Property Assessment” data for the year 2019, the data consists of more than 150,000 rows and 70 columns. At the beginning of an exploratory analysis of data and become familiar with the information is necessary and understanding, who is the audience for the visualization design.

Q1. The initial analysis, some leading variables are mentioned below:

* Zip code, PTYPE( Property occupancy), LU (Land Use), AV\_Land( Total land value), AV\_BLDG (Total Building Value), AV\_Total (Total value for property), Gross\_Tax, Land\_SF( land legal area), YR\_Build (year property was built), YR\_REMOD( Year property was remodeled), Structure\_class

Q2. After removing the null values from the data set, we can see the following correlation between building price and property price below. Over the years if the property price is increasing the there is an increase in the building price and the trend can be seen positive.

A close up of a white wall

Description automatically generated

A screenshot of a cell phone

Description automatically generated

* From the above graph we can visualize that the major investment for the development of Boston happened between 1970 to 1980

A close up of a map

Description automatically generated

* We can see the widespread of data for total land value and the gross tax over the years, the line spread in the bottom includes most of the missing values from the gross tax column.

Q3. Following are the initial few questions that can be answered with the property assessment dataset

1. The audience for this analysis is the investors who want to buy property in Boston, Government can make the use of this data for tax purpose, companies can use this data who are finding a new office location
2. Which property building are needs remodeling?
3. To buy and residential building or houses history of the property can be found for and questions can be answered such as, in which year it was build? When was the property last remodeled?
4. What is the total value of the property after remodeling?

Q4

* Sharing performance with colleagues and clients and instantly communicating without having to wait for the end of month meetings and reports.
* Bringing all the data into one dashboard saves a whole lot of time examining the reports.
* A quick analysis using graphs and charts can pinpoint negative trends that need correcting before they become major problems.
* Provide a point of focus for everyone in the business to concentrate on a single strategic goal.
* Dashboards charts can potentially help to answer questions that would be difficult to answer without the visualization of data.

Q5

It is important to use charts which has the ethical representation of the data, for the initial analysis of the Boston property assessment data the charts that can be used are trend line, bar charts pie charts, map charts