

**Course:** ALY6040 Data Mining Applications

**Assignment 1:** Module 1 Final Project

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**Project Title: Boston Property Assessment Analysis for FY 2024**

**Introduction**

The Boston Property Assessment dataset provides a detailed analysis of real estate properties across Boston, Massachusetts, encompassing residential, commercial, and industrial buildings. The dataset consists of over 182,000 records and 65 attributes, including property type, assessed value, building area, number of units, year built, land use classification, tax assessments, and neighborhood location. Sourced from the Boston Open Data Portal, this dataset offers valuable insights into property valuation trends, urban development, and real estate market dynamics within the city. By exploring these diverse property characteristics, we can better understand how various factors contribute to property assessment and taxation.

The primary business problem we aim to solve is identifying the key factors that influence property values in Boston. Through data mining techniques, we will analyze the relationships between different property attributes such as location, property type, condition, neighborhood, and historical trends to develop a predictive model for property valuation. Our initial interest in this dataset comes from its real-world applicability in real estate investment, property tax assessment, and housing market analysis. By examining this data, we hope to uncover market trends, factors driving property appreciation or depreciation, and recommendations for stakeholders such as homebuyers, investors, city planners, and policymakers. The insights derived from this study will aid in decision-making for property investments, tax policy adjustments, and urban planning strategies.

**Dataset Source & Link**

The dataset is publicly available from the **Boston Open Data Portal** and can be accessed at the following link:

<https://data.boston.gov/dataset/property-assessment>