Project Report

# GitHub URL

(insert URL here)

# Abstract

(Short overview of the entire project and features)

# Introduction

(Explain why you chose this project use case)

1. Introduction: Start with an opening paragraph that introduces the topic of your analysis and provides some context for your readers. This should include a brief overview of the dataset you're analysing and the questions you're trying to answer. Be sure to clearly state your research question and hypothesis.

The global property market is very unstable nowadays due to multiple external factors, as businesses and people increasingly rely on data to make informed decisions, using data analytics can be a crucial tool to decide where and when to buy your next property. This written assignment will explore some of the data provided by HM Land Registry institution and contains data for all property sold and registered since Jan 2018 up to Feb 2023.

Through the analysis of real-world property transactions data, we will examine the insights that can be gained from these data collected for the last 5 years and what might be the best areas of investment according with different type of budgets.

# Dataset

So many people are looking to buy a house in the UK, and what I wanted to do is using my final assignment to assess how is the property marking evolving since important events such as covid, inflation and where and when would be great opportunities for investment.

The dataset was extracted from **(HM Land Registry, 2023)** on an article named ***“Guidance on How to access HM Land Registry Price Paid Data”***. The article pointed me out to another website portal from the same entity “ **(landregistry.data.gov.uk, n.d.)**”, what I wanted to do, was downloading data from all the UK counties to produce a large data set to be analysed, however, this site was having performance issues when tried to retrieve data from 2019 up to Feb 2023 for all sales in the UK. What I had to do was applying some filtering to reduce the data scope, by only focusing on **“Greater London”** county and extracting the data in two chunks, 1st from Jan 2018 until Dec 2019, then, from Jan 2020 up to Feb 2023 and then merge both Datasets. The entire dataset retrieved had **489352 rows** with **16 columns**.

Based on (HM Land Registry, 2023), the time between a property is sold and registered can typically take between 2 weeks to two months, hence, we won’t analyse data for Jan and Feb 2023 as it is incomplete.

# Implementation Process

(Describe your entire process in detail)

The implementation process for data analytics in finance involves a series of steps that ensure successful integration of data-driven decision-making into the organizational culture. The following are the key steps that need to be taken for effective implementation:

1. Defining objectives: The first step is to define the objectives of the data analytics project. This involves understanding the business problem that needs to be solved, the data required, and the desired outcomes.
2. Data collection and preparation: The next step is to collect and prepare the data required for the analysis. This involves identifying data sources, cleaning and transforming the data to make it usable, and preparing it for analysis.
3. Data analysis: The data is analysed using statistical and machine learning techniques to identify patterns, trends, and insights. This analysis helps in making informed decisions.
4. Visualization and reporting: The insights obtained from the analysis are then visualized and reported in a way that is understandable and actionable for the stakeholders.
5. Integration into business processes: The insights obtained from data analytics need to be integrated into business processes to make them actionable. This requires collaboration between the data analytics team and the business users.
6. Monitoring and continuous improvement: The final step is to monitor the performance of the data analytics solution and continuously improve it based on feedback and insights gained.

Overall, the implementation process requires close collaboration between the data analytics team, business users, and IT to ensure successful integration of data-driven decision-making into the organizational culture.

# Results

(Include the charts and describe them)

Present your findings in a clear and concise manner. This may involve using charts, tables, or graphs to help illustrate your results. Be sure to interpret your results and explain what they mean in the context of your research question.

# Insights

(Point out at least 5 insights in bullet points)

# References

HM Land Registry, 2023. *How to access HM Land Registry Price Paid Data.* [Online]   
Available at: https://www.gov.uk/guidance/about-the-price-paid-data#explanations-of-column-headers-in-the-ppd  
[Accessed 23 February 2023].

landregistry.data.gov.uk, n.d. *HM Land Registry Open Data.* [Online]   
Available at: https://landregistry.data.gov.uk/