Project Title: Exploring Regional House Price Dynamics and Property Type Trends in the UK Housing Market

Research Question: What effects do property types and regional differences have on trends in house prices in the UK housing market?

**Objective**

**Analyze key statistics of the dataset –**

Compare and summarize sales numbers, price indices, and average house prices for the various UK regions.

**Compare Different Property Types:** Compare and contrast the patterns found in various property types, including flats, terraced houses, semi-detached, and detached homes.

**Determine Patterns and Trends:** Do a time-series analysis to find long-term trends and seasonal patterns in home prices.

**Evaluate the Purchase Methods:** Examine the effects on home prices and sales volumes of buying with cash versus a mortgage.

**Analyze the buying demographics:** Examine the impact of first-time buyers (FTB) and former owner-occupiers (FOO) on the dynamics of the housing market and trends in house prices.

**Summary of project and background.**

The housing market in the United Kingdom is complicated, with wide regional variations and a wide range of property kinds. To examine these dynamics, this project makes use of the UK House Price Index (HPI) dataset, which covers the years 1995 to 2024 for England and Wales, 2004 for Scotland, and 2005 for Northern Ireland. The study will offer a thorough analysis of regional average home prices, sales volumes, and price indices. The impact of cash versus mortgage purchases will be evaluated, and trends among various property types (detached, semi-detached, terraced, and flats) will be compared. It will also look at how first-time buyers and former owners-occupiers affect market trends to provide insightful information to housing market participants.

**Reference List:**

1. **Chau, K.W., Wong, S.K., & Yiu, C.Y. (2005).** "Housing Quality and the Demand for Maintenance and Repair." *Housing Studies*, 20(3), pp. 413-428.