

# # Predictive analysis of House prices in King County

## ## Project Overview

This project uses linear regression analysis to infer how certain variables impact housing prices and by how much. The aim is to gain insights and make predictions about the factors that affect house sales in King County area as well as lucrative neighbourhoods to invest in while using statistical techniques to support relevant recommendations.

### ### Business Problem

The real estate agency wants to provide homeowners with advice on how home renovations can potentially increase the estimated value of their homes and by what amount. The agency aims to offer valuable insights to homeowners, helping them make informed decisions about renovation projects that can maximize their return on investment when selling their properties.

### ### The Data

The dataset used for predicting the sales price of houses in King County is found in `kc_house_data.csv`. It comprises 21,597 observations and consists of 20 house features along with a column indicating the house price. The data covers homes sold between May 2014 and May 2015. Out of the 20 features, eight are continuous numerical variables that provide information about the area dimensions and geographical location of the house. These variables offer a general overview of the house's structure and characteristics. The remaining attributes are discrete variables which offer more detailed information