



NORTHWESTERN COUNTY REAL ESTATE PROJECT







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PROJECT OVERVIEW

In the dynamic real estate market of King County, Washington state, achieving success hinges on understanding key factors influencing property values. Our project, in collaboration with a local real estate agency, aims to uncover these factors using the extensive King County House Sales dataset.

Challenges such as economic downturns and data scarcity make precise forecasting difficult. To overcome these obstacles, we employ a blend of multiple linear regression models to analyze trends and provide actionable insights. Our ultimate goal is to develop a comprehensive advice system that empowers homeowners to make informed decisions about property renovations and understand their impact on property worth.

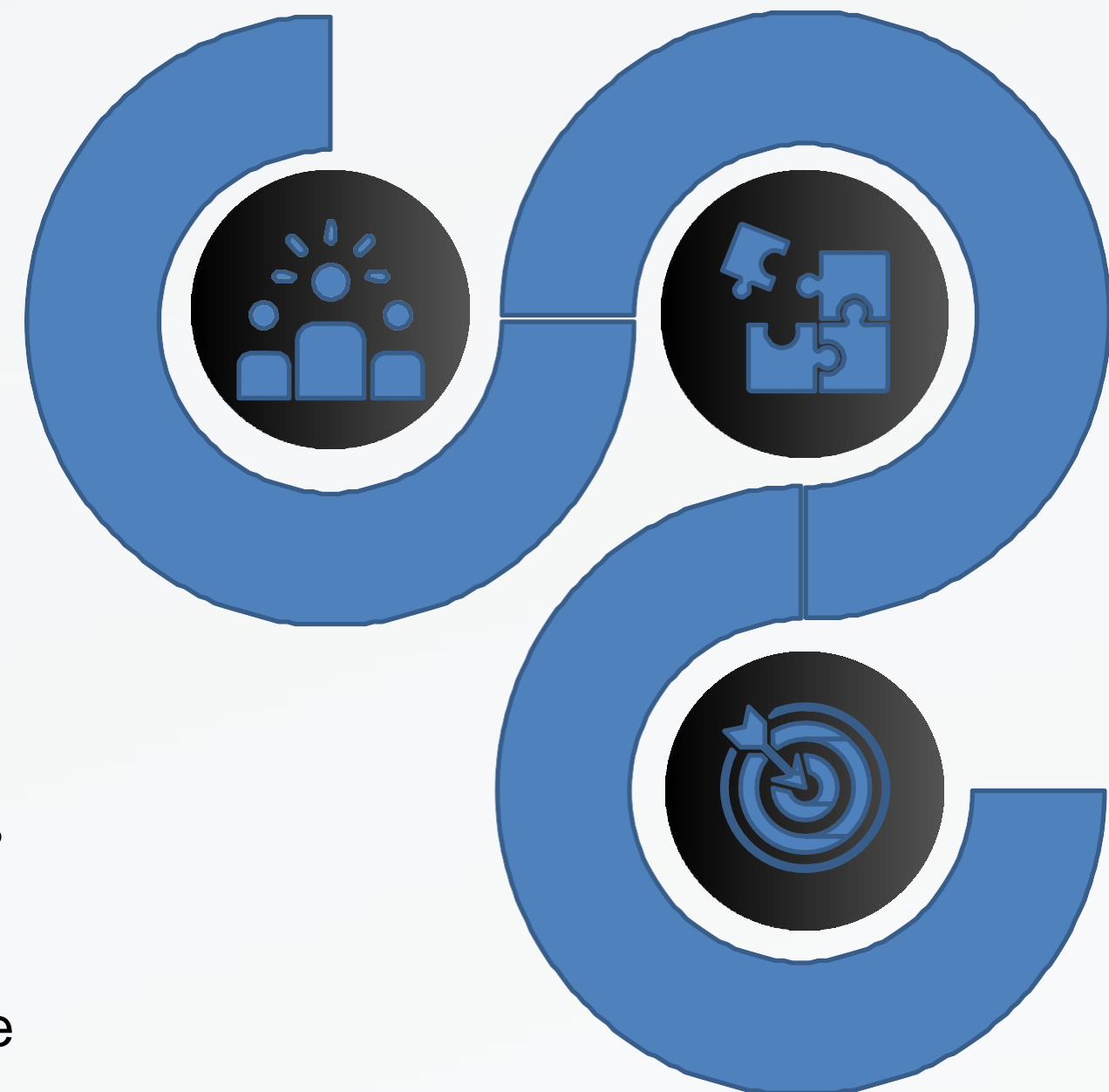
BUSINESS UNDERSTANDING

1 Business Problem

A King County real estate agency lacks a reliable system for data-driven insights on home prices, hindering stakeholders' ability to make informed decisions about property values.²

2 Project Solution

We aim to empower homeowners, investors, and real estate agents with valuable insights. Homeowners can accurately assess their property values, investors can spot discounted properties, and agents can advise clients on pricing strategies by predicting home prices effortlessly.



OBJECTIVES



Predicting Home Prices

Developing a model to estimate home value increases based on renovation factors



Identifying Important Features

Examining renovation variables to determine which ones have the greatest impact on increasing a home's estimated value.



Monitoring Market Trends

Analyzing regions with highest and lowest average sale prices and identifying most in-demand property types for market insights.

DATA UNDERSTANDING

This project is based on the dataset of a northwestern county. The dataset encompasses various features, including but not limited to:

- price
- bedrooms
- bathrooms
- sqft_living
- zipcode
- yr_built

**Data time frame:
1900 - 2015**

21,597
records

15
Numerical
Columns

3 data
types

6
categorical
features

The methods used in handling the data set given include:

Data Preparation

This process entails cleaning, transforming, and organizing raw data to make it suitable for analysis and modeling. Through it, we uncovered insights such as:

- Characteristics of dataset columns.
- Types of data present.
- Shape of the dataset itself

Data Cleaning

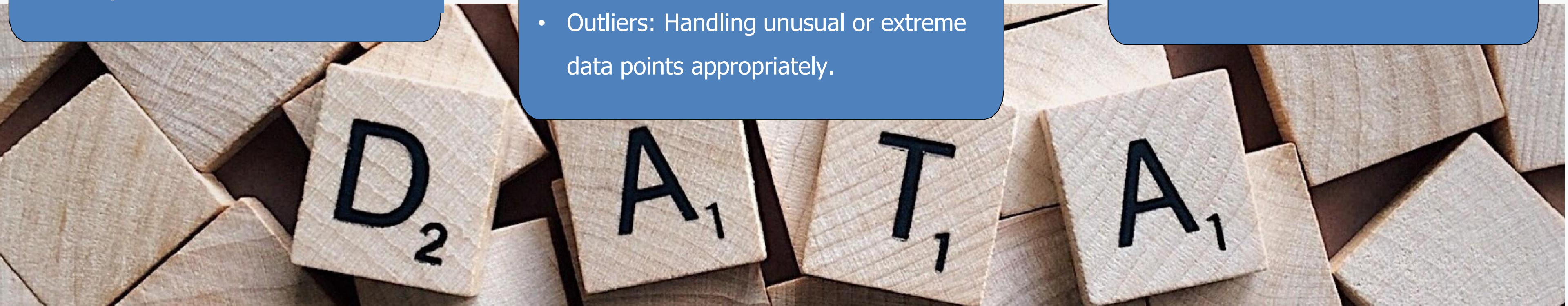
In this process, we decide how to address:

Missing values: Devising strategies to manage and fill in missing data.

- Duplicated values: Identifying and resolving any repeated entries in the dataset.
- Wrong data types: Correcting any inconsistencies in the data formats.
- Outliers: Handling unusual or extreme data points appropriately.

Data Visualization

This process allows us to visually represent complex data and trends in easy-to-understand charts and graphs, helping everyone grasp important information and make informed decisions



NEXT STEPS

01

02

03





OUR TEAM

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