# Compass Real Estate Group

House Valuation Predictive Model for King County, WA

Benjamin Bai, Alvaro Mendizabal, Nicolas Pierce

# **Business Questions**

#### Compass Real Estate Group Management Team

- What are the most influential features on house sale price?
- Where in King County should Compass allocate resources?



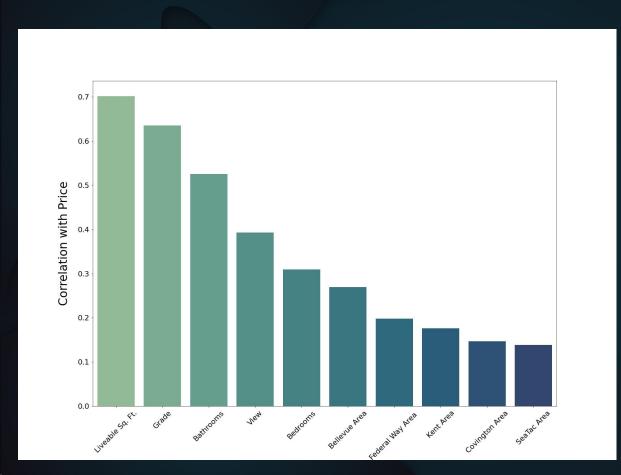
### Data Overview

#### King County, Washington House Sale Data 2014-2015

- Did not use 2021-2022 due to COVID
- 20252 house sales, 20 Features
- The Average House in King County:
  - o Price: \$477,000
  - o Beds/Baths: 3/2
  - o Livable Sq. Ft: 2000

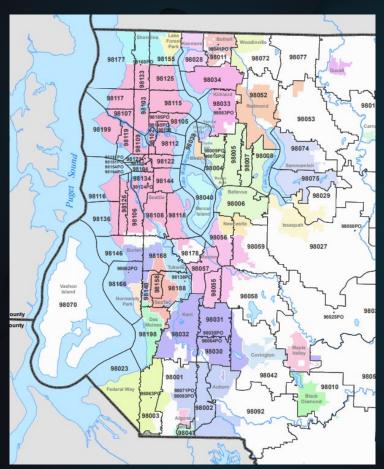


# What affects price?



- Size Matters
  - o Sq. Ft
  - o Baths
  - o Beds
- Luxury Factor
  - Grade
  - View
- Location
  - Zipcode Groups

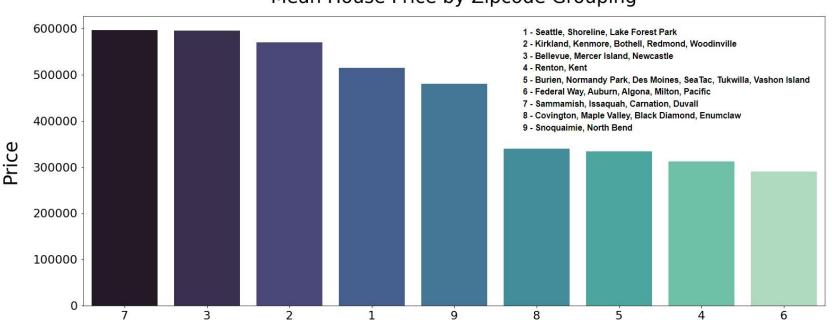
# **Grouping by Zipcode**



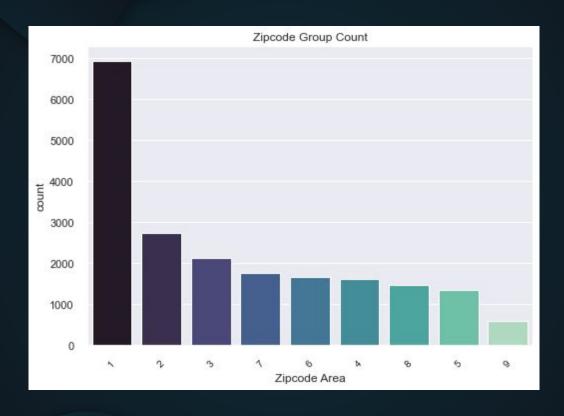
- 1. Seattle, Shoreline, Lake Forest Park
- 2. Kirkland, Kenmore, Bothell, Redmond, Woodinville
- 3. Bellevue, Mercer Island, Newcastle
- 4. Renton, Kent
- Burien, Normandy Park, Des Moines, SeaTac,Tukwilla, Vashon Island
- 6. Federal Way, Auburn, Algona, Milton, Pacific
- 7. Sammamish, Issaquah, Carnation, Duvall
- 8. Covington, Maple Valley, Black Diamond, Enumclaw
- 9. Snoqualmie, North Bend

# **Most expensive Zipcodes?**

#### Mean House Price by Zipcode Grouping



#### Number of homes sold per zipcode from 2014-2015

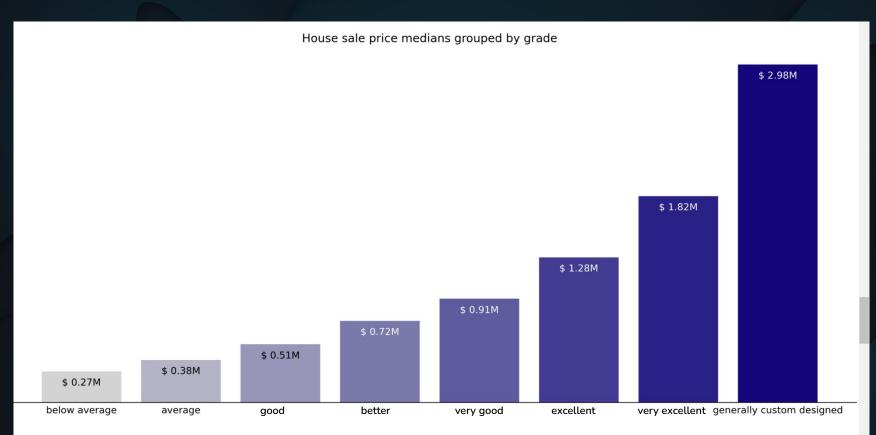


Seattle, Shoreline, and Lake Forest Park sell the greatest number of houses.

# **Living Space and Price**

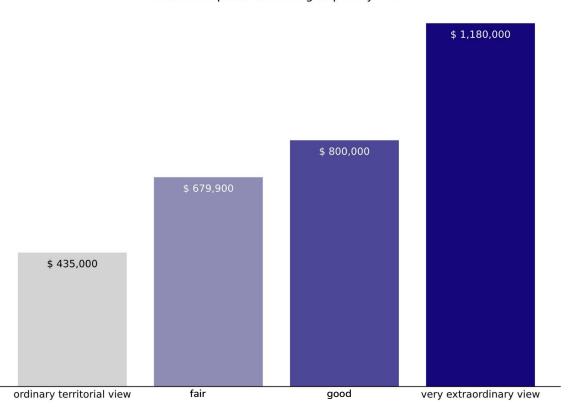


# **Grade and Price**



# **View and Price**





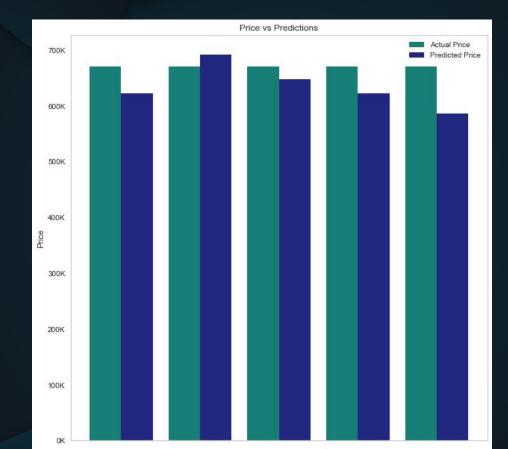
### Model

We can predict the price of a home with 82% accuracy

Error of about \$50,000 for any given prediction



# **Model Prediction**



### **Conclusion**

Key Features: Liveable Sq. Ft, View, Grade, Zipcode

**Model Accuracy:** Explains 81.6 % of the data, Predicts Home Price with an average error of about 10%

#### **Zipcodes to focus on:**

Zone 1 (Seattle, Shoreline, Lake Forest Park)

Zone 7 (Sammamish, Issaquah, Carnation, Duvall)

Zone 3 (Bellevue, Medina, Mercer Island, Newcastle)

#### Benjamin Bai

E-Mail LinkedIn GitHub

#### Alvaro Mendizabal

E-Mail LinkedIn GitHub

#### **Nicolas Pierce**

E-Mail LinkedIn GitHub







# Questions?