

---

---

# EDA Project

Dizzy Englmaier  
Chavely Albert Fernandez

September 2025

---

---

# Our client



Jacob Phillips

Buy a house:

- Unlimited Budget
- No waterfront
- Golf

Big lot

- tennis court, pool
  - 4+ bathrooms
  - historic
- or smaller house nearby

# Data overview

King County Housing Data, containing information about  
home sales in King County (USA)

21597 rows            number of houses

21 columns            Information about the house

- house id
- price
- # of bathrooms
- footage of the home
- footage of the lot
- footage of the basement
- if has a view to a waterfront
- built Year
- zip code
- latitude
- longitude

## Number of data missing in every column:

id	0
bedrooms	0
bathrooms	0
sqft_living	0
sqft_lot	0
floors	0
waterfront	2391
view	63
condition	0
grade	0
sqft_above	0
sqft_basement	452
yr_built	0
yr_renovated	3848
zipcode	0
lat	0
long	0
sqft_living15	0
sqft_lot15	0
date	0
price	0



Not consider  
missing values



Assume it's 0

## Conditions used for our client:

- Big lot  
(tennis court and pool)  
4800 + 13500 sq ft  
≈ 18,300 sq ft ≤ out. area

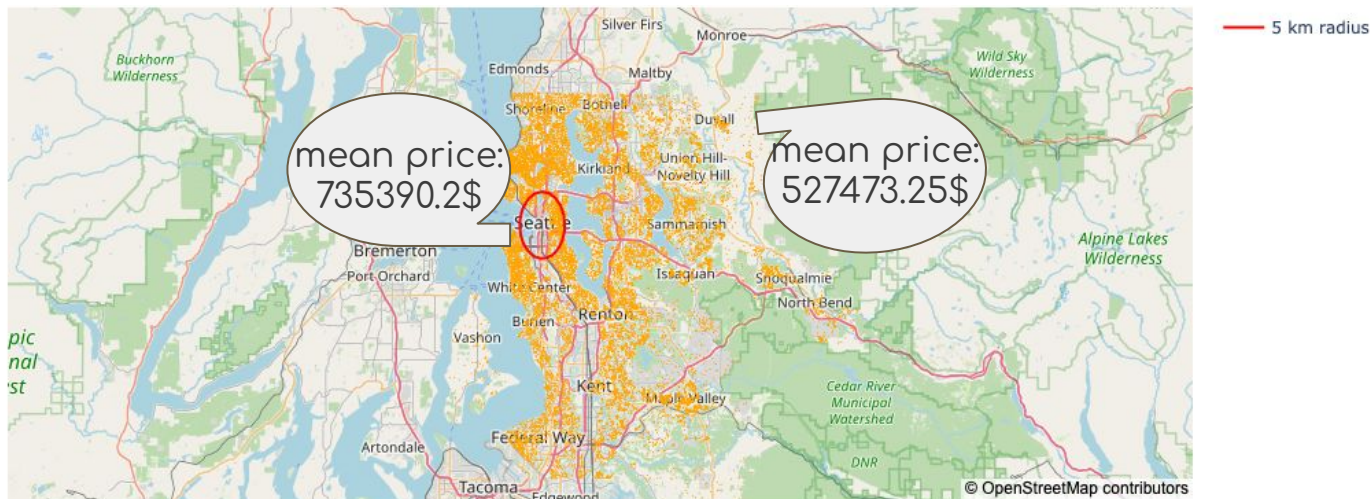
out. area = size(lot) - size(living) - size(basement)

- historic  
build year < 1975
- No waterfront  
waterfront = 0
- 4+ bathrooms  
bathrooms > 4

# Hypothesis to test

# 1. How the proximity to Seattle influences the price of houses?

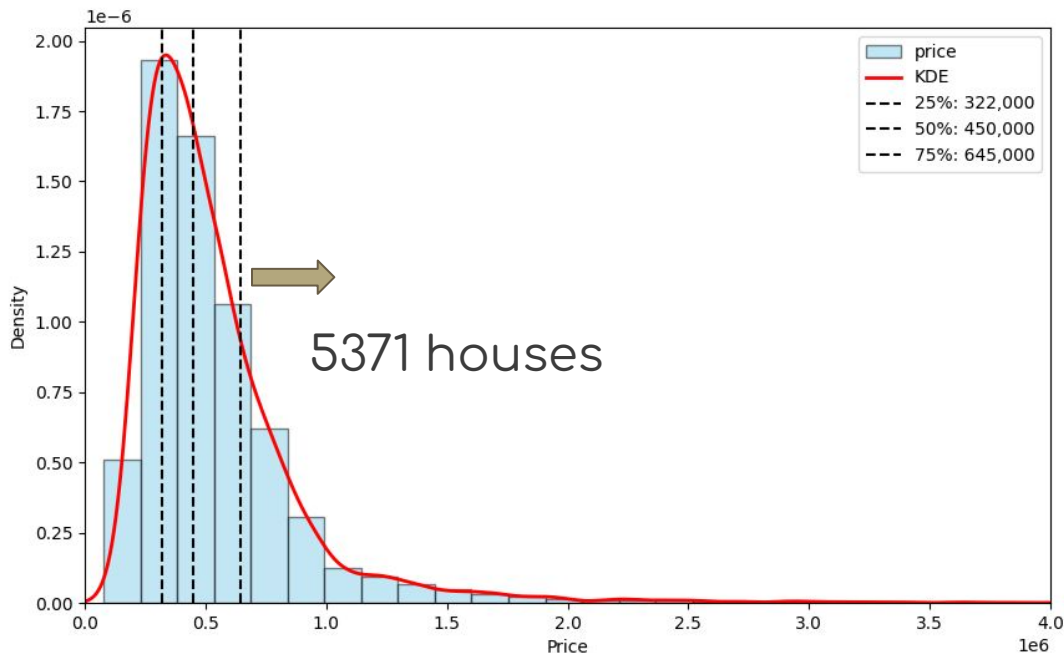
- Houses that are 5km away from the center of Seattle are 20% cheaper than houses inside a 5km radius from the center



28.27% cheaper

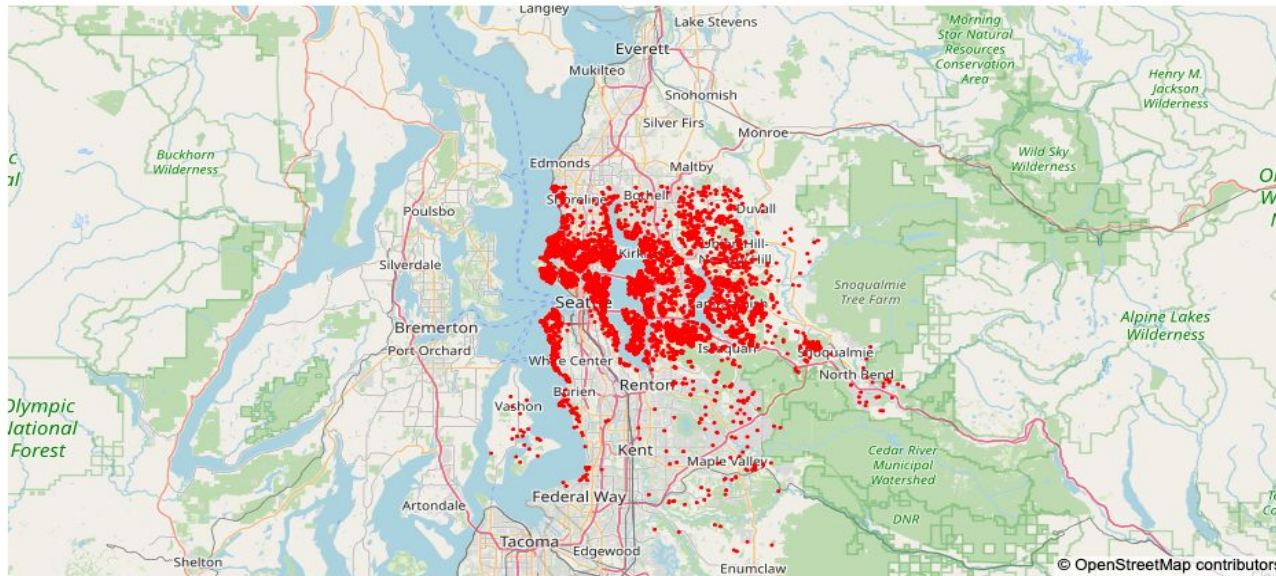
## 2. Which houses are close to a golf course?

- The most expensive 25% of houses are in zip codes that always have at least one golf course



## 2. Which houses are close to a golf course?

### Zip codes

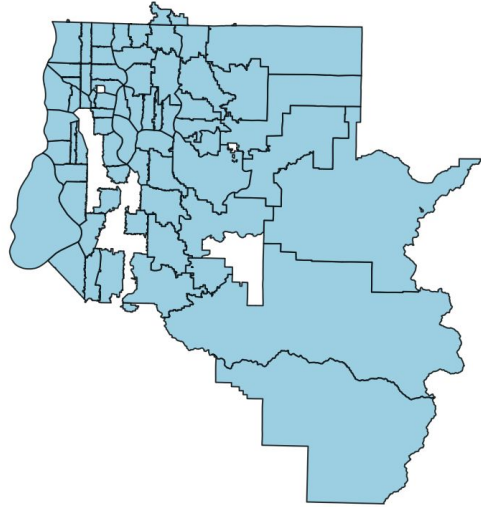


Location of 25% more expensive houses

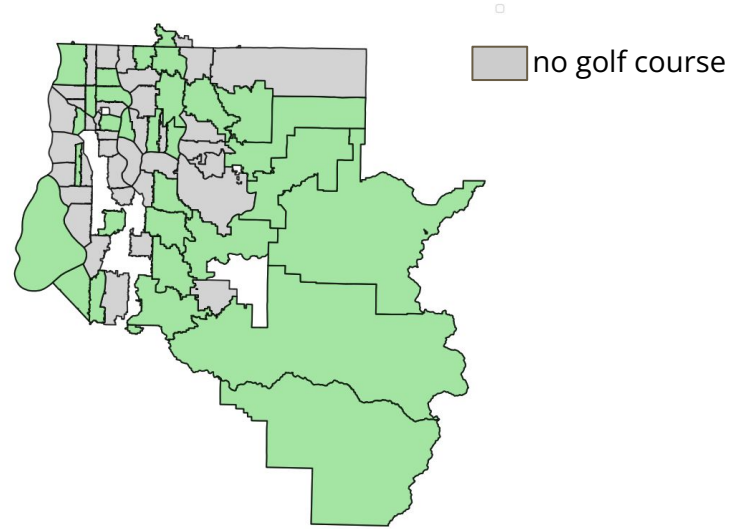
98053, 98007, 98126,  
98040, 98119, 98112,  
98052, 98117, 98115,  
98166, 98070, 98105,  
98008, 98004, 98005,  
98075, 98010, 98199,  
98102, 98077, 98177,  
98103, 98027, 98107,  
98109, 98006, 98056,  
98034, 98033, 98144,  
98074, 98028, 98122,  
98059, 98116, 98038,  
98024, 98125, 98065,  
98106, 98136, 98178,  
98029, 98118, 98072,  
98092, 98133, 98155,  
98045, 98022, 98146,  
98003, 98042, 98019,  
98014, 98039, 98058,  
98031, 98023, 98011,  
98001, 98198, 98188



Zip codes including at least one of the 25% more expensive houses



Zip codes including at least one of the 25% more expensive houses AND a golf course



VS

→ The most expensive 25% of houses are in zip codes that  
~~always have at least one golf course~~

(28/63)

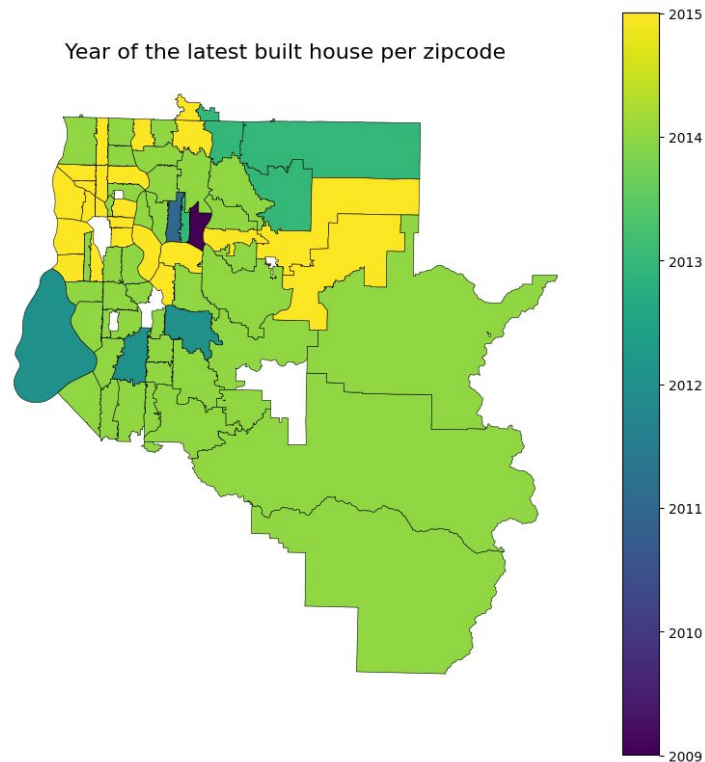
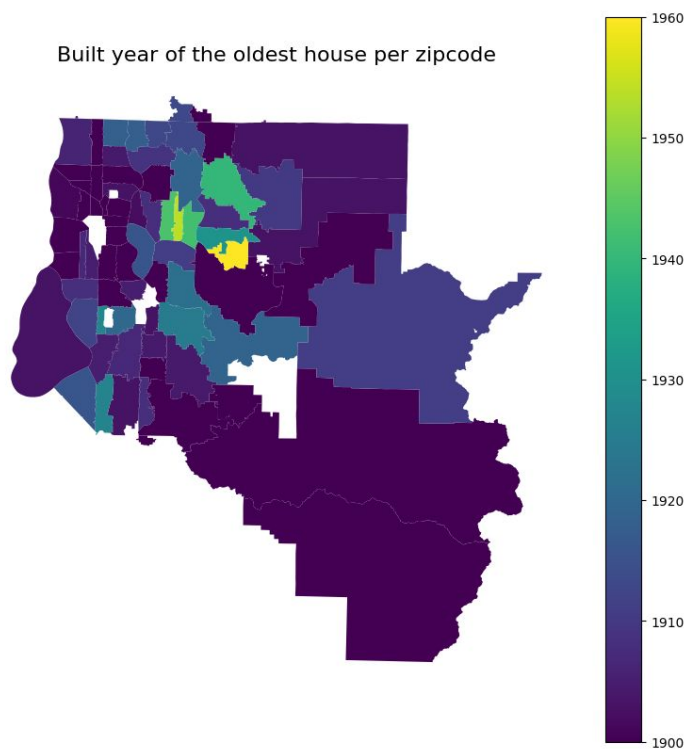
### 3. How expensive are the houses that meet the client conditions in comparison to the King County?

- Houses that meet the conditions are in the top 25% of house prices

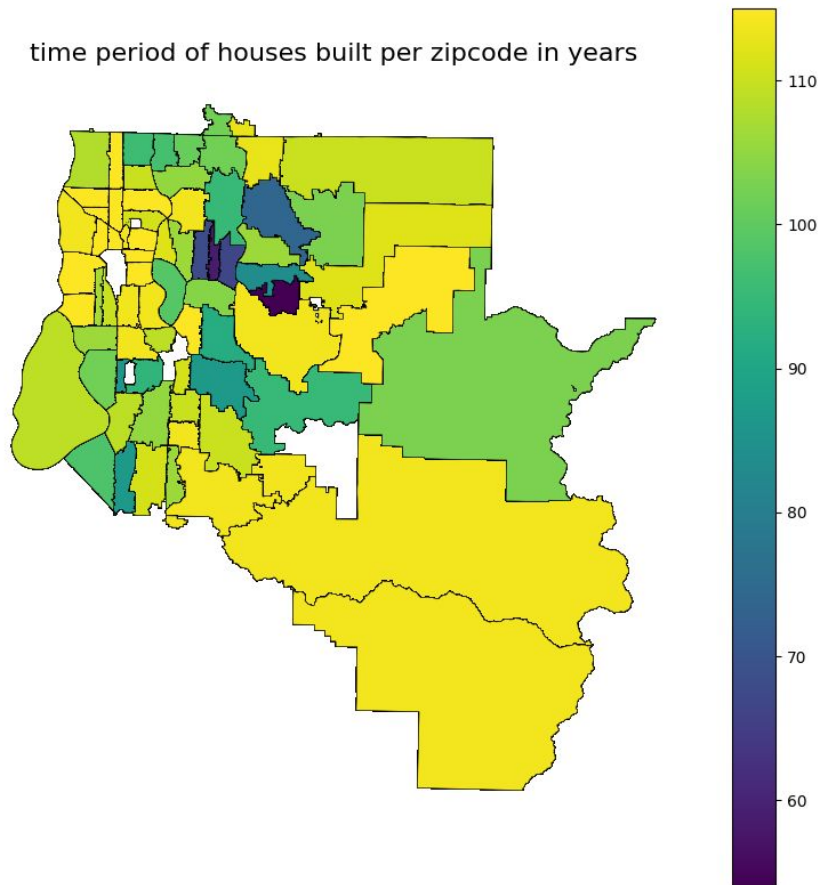
Total amount of houses that meet the conditions: 26

- 22 houses are in top 25%

## 4. Are neighborhoods (zipcodes) build in the same time frame?

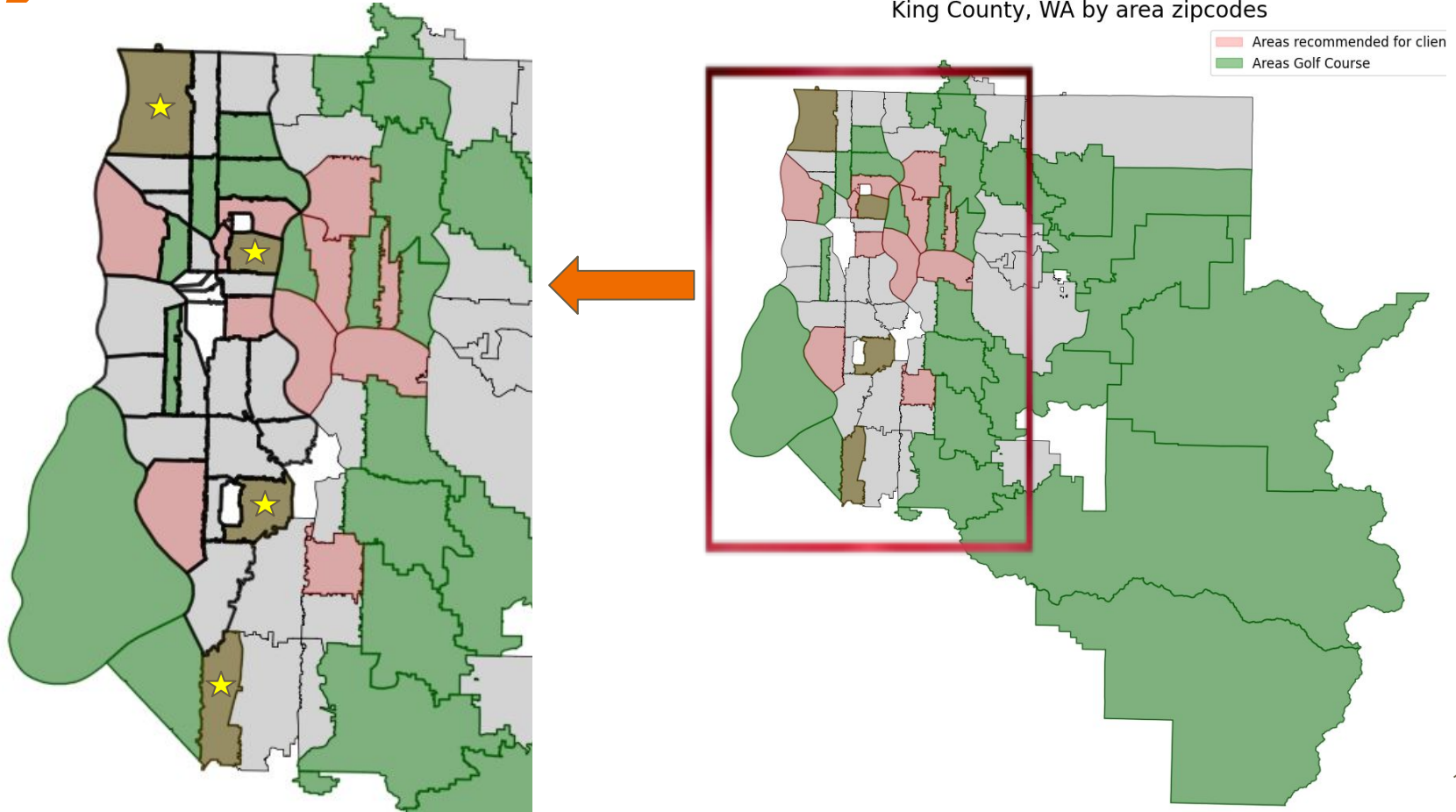


## 4. Are neighborhoods (zipcodes) build in the same time frame?

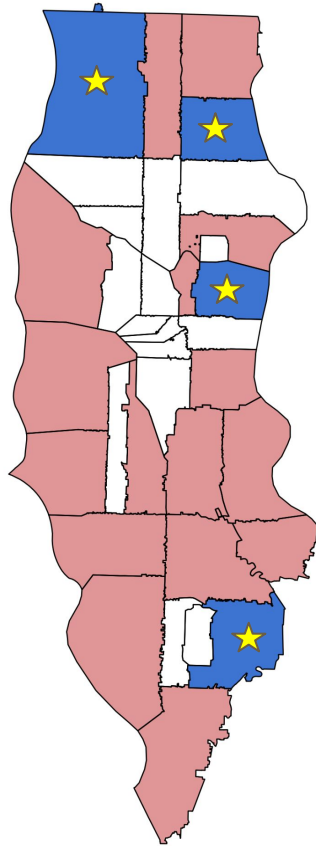


# Insights and recommendations for the client

King County, WA by area zipcodes



# Seattle by area Zip codes



- Areas recommended for client
- Areas with Golf Course
- Both (most recommended ones)

condition : 3+ bathrooms

zipcodes:

- in Seattle: 98177, 98112, 98188
- with 3+ bathrooms: 98125
- outside: 98003

**Thank you for your attention!**