California House Pricing Analysis

Outline:
- Identify trends and significant factors to housing prices
- Provide visuals, insights, and recommendations to real estate company
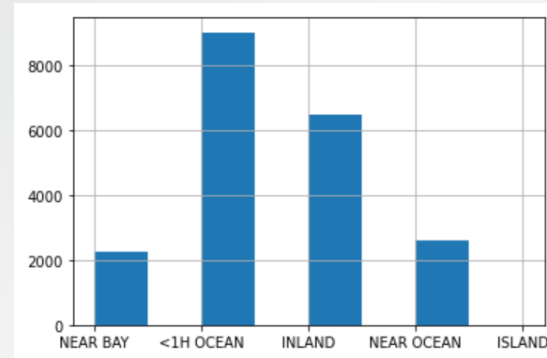

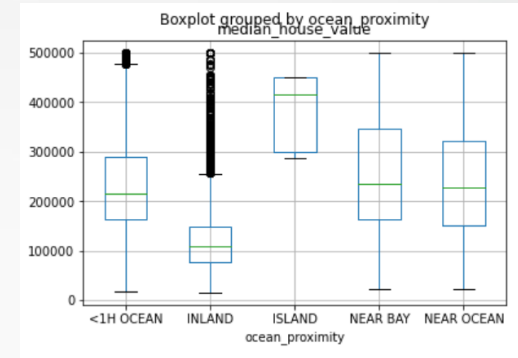*Figure 1:* Distribution of house according to distance from ocean

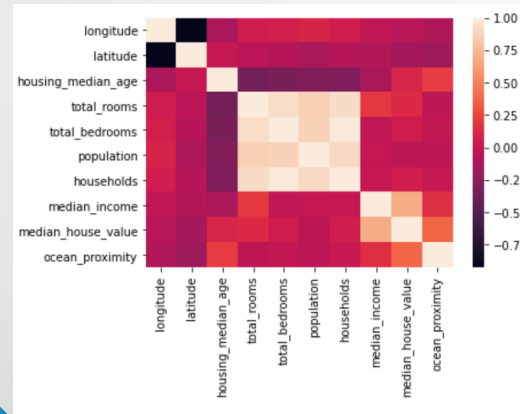*Figure 2:* Distribution of House price according to ocean proximity

Figure 3: Shows correlation heat map between predictor variables, light colors shows high correlation

Variable Order of Significance:
- Location (Lat/Long)
- Income
- House Age
- Ocean Proximity

Findings:
- Total bedrooms, rooms, population, and number of households is not significant to house price
- There is a very clear correlation between total bedrooms, rooms, population, and number of households in a block
- Location (longitude/latitude), and income play the biggest factors when considering the price of the house, followed by age of the house, and lastly the distance to ocean(although still significant)

Recommendations:
Real estate company should take into account, different areas and locations which could be targeted for a selected group of customers with specific incomes
Make sure audiences are targeted, for example take customers income into consideration (if possible) when suggesting housing based on location, house age, and proximity to ocean
Newer houses will tend to go for a higher selling price (Newer is better in these cases)
Houses in the islands will sell for much higher prices, houses near the bay, ocean, and within 1 hour of the ocean sell for a little less usually, and houses inland sell cheaper than the other 2 groups