

# Individual Dashboard Project Description

## Dataset

### California Housing with name of Counties

The data provides information from the 1990 California census. While it may not be suitable for predicting current housing prices like the Zillow Zestimate dataset, it does offer an accessible platform for teaching the fundamentals of machine learning.

The dataset contains details about houses in specific California districts, along with summary statistics derived from the 1990 census. The columns are self-explanatory:

1. Median House Value: Median value of houses in a block (in US Dollars) [\$]
2. Median Income: Median income of households in a block (in tens of thousands of US Dollars) [10k\$]
3. Median Age: Median age of houses in a block (in years)
4. Total Rooms: Total number of rooms in a block
5. Total Bedrooms: Total number of bedrooms in a block
6. Population: Total number of residents in a block
7. Households: Total number of households in a block
8. Latitude: Indicates how far north a house is (higher value means farther north) [°]
9. Longitude: Indicates how far west a house is (higher value means farther west) [°]
10. Distance to Coast: Distance to the nearest coastal point [m]
11. Distance to Los Angeles: Distance to the center of Los Angeles [m]
12. Distance to San Diego: Distance to the center of San Diego [m]
13. Distance to San Jose: Distance to the center of San Jose [m]
14. Distance to San Francisco: Distance to the center of San Francisco [m]
15. Ocean Proximity: Near Bay, Near Ocean, <1H Ocean, Inland
16. The county in which the household resides.

## Data Visualization Design

**1. Dual Axis Map:** It demonstrate the overall distribution of medium household income and the type of house by county. The medium household income is represented in a filled map. The number of households in each house type is described by a pie chart.

**2. Quadrant Chart:** The plot shows the correlation between median household income and medium house value. The higher household income a county has, the higher house value it does. San Francisco has the highest medium house value in CA.

**3. Boxplot:** The boxplot represents a decreasing house value tendency as the location of a house becomes far away from the ocean. And outliers strongly affect the average house values across the type of houses.

**4. Stacked Bar Graph:** In the top 5 county with regard to medium house value, the majority of house type is near bay or less than 1H ocean.