Pandas Assignment 4

(DataFrame)

Note: Case Study 2 -> Housing price Dataset.

Dataset link:

https://www.kaggle.com/datasets/yasserh/housing-prices-dataset

Q1. What is the average price of houses based on the number of bedrooms they have?

Q2. Count the number of houses that are located in each unique zip code.

Q3. Calculate the percentage of houses in the dataset that are located near water.

Q4. Create a new column called 'PricePerSqFt' that calculates the price per square foot of each house.

Q5. What is the minimum, maximum, and average area (square feet) of houses with more than 3 bathrooms?

Q6. Identify houses that have a price above $500,000 but with an area (in square feet) below 2000. List the top 10 results by price in descending order.

Q7. Find the top 5 most expensive houses located near water. Display their location, price, and waterfront status.

Q8. What is the average price of houses in each zip code? Sort the results in descending order of average price.

Q9. Display houses with more than 4 bedrooms but an area of less than 3000 square feet. List the top 5 results by price.

Q10. Find the top 5 zip codes with the highest average area per house. For each of these zip codes, display the average price and the total number of houses.

Q11. For houses located near water, calculate the average number of floors.

Q12. Identify houses built before 1980 that have a price above the average price of all houses in the dataset. List the top 10 results sorted by price.

Q13. For each unique number of bedrooms, calculate the minimum, maximum, and average price per square foot ('PricePerSqFt') of houses with that number of bedrooms. Sort the results by the number of bedrooms in ascending order.

Q14. (Unique Complex Mapping) Create a new column named 'CostEfficiency' by dividing the 'Price' by the square of 'Area'. Identify the house with the lowest 'CostEfficiency' and display its price, area, and location.

Q15. Create a new column called 'RenovationAge' which calculates the number of years since the house was last renovated. Display the 10 houses with the highest 'RenovationAge' that are also near water.