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Module: 8 _NumPy, Pandas, Matplotlib

ASSESSMENT 1

1) Import pandas and read in the banklist.csv file into a dataframe called banks.

2) Show the head of the dataframe.

3) What are the column names?

4) How many States (ST) are represented in this data set?

5) Get a list or array of all the states in the data set.

6) What are the top 5 states with the most failed banks?

7) What are the top 5 acquiring institutions?

8) How many banks has the State Bank of Texas acquired? How many of them were actually in Texas?

9) What is the most common city in California for a bank to fail in?

Dataset:
https://github.com/TopsCode/Data_Analysis_2024/blob/main/ALL_CSV/banklist.csv

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Module 8: NumPy, Pandas, Matplotlib Libraries

Assessment 2:

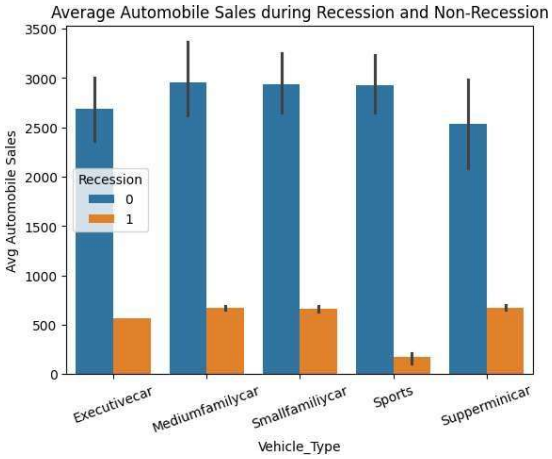
Dataset: https://github.com/TopsCode/Data_Analysis_2024/blob/main/ALL_CSV/historical_automobile_sales.csv

Q 1: Develop a *Line chart* using the functionality of pandas to show how automobile sales fluctuate from year to year.

Q 2: Plot different lines for categories of vehicle type and analyze the trend to answer the question Is there a noticeable difference in sales trends between different vehicle types during recession periods?

Q 3: Use the functionality of Seaborn Library to create a visualization to compare the sales trend per vehicle type for a recession period with a non- recession period.

Q 4: Now you want to compare the sales of different vehicle types during a recession and a non-recession period



Hint: To visualize sales of different vehicles during recession and non- recession periods, you can use a bar chart. You will need to group Recession, Vehicle_Typefor average Automobile_Sales and then plot it. Make use of sns. bar plot (x=x, y=data = df))