Assignment on Store_sales dataset

Load the Dataset

In [2]:
```
import pandas as pd
ss=pd.read_csv('store_sales.csv')
```

Calculate the total sales for each store across all months.

In [7]:
```
ss['Total_Sales']=ss.iloc[:,2:].sum(axis=1)
print(ss[['store_id','Total_Sales']])
```

```
   store_id  Total_Sales
0       S_1          178
1       S_2          174
2       S_3          181
3       S_4          135
4       S_5          159
..      ...          ...
95     S_96          185
96     S_97          154
97     S_98          168
98     S_99          173
99    S_100          180

[100 rows x 2 columns]
```

In [9]:
```
ss
```

Out[9]:

	store_id	city	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sep	Oct	Nov	Dec
0	S_1	Texas	8	20	13	21	17	20	24	17	16	9	7	6
1	S_2	California	12	19	15	15	11	19	7	15	10	11	21	19
2	S_3	California	16	16	14	19	23	6	13	13	15	14	24	8
3	S_4	Texas	8	18	13	10	14	14	6	8	8	18	7	11
4	S_5	Texas	19	5	24	9	5	24	10	5	24	15	6	13
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
95	S_96	Texas	7	10	20	20	10	15	15	21	15	7	23	22
96	S_97	California	13	6	7	15	22	10	21	23	10	6	12	9
97	S_98	Texas	16	9	6	14	20	13	11	10	8	22	17	22
98	S_99	Arizona	18	16	9	5	12	22	11	13	21	17	19	10
99	S_100	California	5	23	17	24	15	21	19	10	12	20	5	9

100 rows × 15 columns

Find the average sales for each month across all stores

In [18]:
```
average_sales_per_month = ss.iloc[:, 2:14].mean()  # Columns 2 to 13 for
print(average_sales_per_month)
```

```
Jan     14.46
Feb     15.09
Mar     14.56
Apr     14.57
May     13.56
Jun     13.80
July    14.38
Aug     15.81
Sep     14.91
Oct     14.10
Nov     15.31
Dec     13.57
dtype: float64
```

Identify the store with the highest total sales.

In [40]:
```
highest_total_sales=ss.loc[ss['Total_Sales'].idxmax()]
print(highest_total_sales[['store_id','Total_Sales']])
```

```
store_id       S_62
Total_Sales     214
Name: 61, dtype: object
```

Calculate the total sales for each city.

In [46]:
```
city_sales= ss.groupby('city')['Total_Sales'].sum()
city_sales
```

Out[46]:
```
city
Arizona       3951
California    7522
Texas         5939
Name: Total_Sales, dtype: int64
```

List stores with total sales greater than 200

In [54]:
```
greater_than_200=ss[ss['Total_Sales']>200]
greater_than_200[['store_id','Total_Sales']]
```

Out[54]:

	store_id	Total_Sales
37	S_38	207
39	S_40	204
50	S_51	210
61	S_62	214
69	S_70	206
72	S_73	213
77	S_78	211
85	S_86	214
86	S_87	203
92	S_93	204

Which month had the highest average sales across all stores?

```
In [68]: average_sales_per_month.idxmax()
```

```
Out[68]: 'Aug'
```

```
In [66]: average_sales_per_month.max()
```

```
Out[66]: 15.81
```

Which city generated the most revenue?

```
In [72]: city_sales.idxmax()
```

```
Out[72]: 'California'
```

```
In [74]: city_sales.max()
```

```
Out[74]: 7522
```