

```
from google.colab import files
```

```
# Upload the file
```

```
uploaded = files.upload()
```



Choose Files Day_7_sales_data.csv

- **Day_7_sales_data.csv**(text/csv) - 860 bytes, last modified: 1/24/2025 - 100% done
Saving Day_7_sales_data.csv to Day_7_sales_data.csv

```
import pandas as pd
```

```
import os
```

```
file_path = 'Day_7_sales_data.csv'
```

```
if os.path.exists(file_path):
```

```
    sales_data = pd.read_csv(file_path)
```

```
    print("File successfully loaded!")
```

```
    print("First 5 rows of the dataset:")
```

```
    print(sales_data.head())
```

```
    print("\nBasic statistics of numerical columns:")
```

```
    print(sales_data.describe())
```

```
else:
```

```
    print(f"Error: The file '{file_path}' was not found. Please check the file location and try again.")
```



File successfully loaded!

First 5 rows of the dataset:

	Date	Product	Region	Sales	Profit	Quantity
0	2023-01-02	Tablet	East	1061.81	236.12	7
1	2023-01-06	Laptop	North	1926.07	246.34	8
2	2023-01-03	Tablet	East	1597.99	253.17	3
3	2023-01-20	Tablet	North	1397.99	242.23	1
4	2023-01-04	Laptop	West	734.03	140.36	4

Basic statistics of numerical columns:

	Sales	Profit	Quantity
count	20.000000	20.000000	20.000000
mean	1186.553000	211.533000	5.050000
std	461.528444	66.916251	2.543826
min	530.880000	82.160000	1.000000
25%	774.517500	166.515000	2.750000
50%	1104.865000	214.670000	5.000000
75%	1571.080000	248.047500	7.250000
max	1954.860000	364.970000	9.000000

```
import pandas as pd
```

```
sales_data = pd.read_csv('Day_7_sales_data.csv')
```

```
total_sales_per_region = sales_data.groupby('Region')['Sales'].sum()
```

```
print("Total Sales for Each Region:")
```

```
print(total_sales_per_region)
most_sold_product = sales_data.groupby('Product')['Quantity'].sum().idxmax()

print("\nMost Sold Product (based on quantity):")
print(most_sold_product)
sales_data['Profit Margin'] = (sales_data['Profit'] / sales_data['Sales']) * 100

average_profit_margin_per_product = sales_data.groupby('Product')['Profit Margin'].mean()

print("\nAverage Profit Margin for Each Product:")
print(average_profit_margin_per_product)
```

➞ Total Sales for Each Region:

Region	
East	5818.93
North	10449.68
South	936.84
West	6525.61

Name: Sales, dtype: float64

Most Sold Product (based on quantity):
Tablet

Average Profit Margin for Each Product:

Product	
Keyboard	20.080696
Laptop	17.112734
Monitor	15.134989
Smartphone	23.703647
Tablet	19.955758

Name: Profit Margin, dtype: float64

Start coding or [generate](#) with AI.

