

EX.NO:7	Perform sales data analysis through data wrangling techniques using the pandas library.
DATE:	

AIM:

To write a program to clean and analyze sales data.

ALGORITHM:

1. Read CSV data into pandas.
2. Handle missing values.
3. Group by region or product.
4. Use pivot_table for summarization.

PROGRAM:

CODE

```
import pandas as pd
df = pd.read_csv("sales.csv")
df.fillna(0, inplace=True)
report = df.pivot_table(index='Region', values='Sales', aggfunc='sum')
print(report)
```

RESULT:

Thus, python program is successfully implemented that perform sales data analysis through data wrangling techniques using the pandas library.

Exercise:

1. Write a Python program to load the dataset using Pandas and display the first 5 rows.
2. Using Pandas, filter the dataset to show only the sales records where the Region is **"South"** and the Product is **"Laptop"**.
3. Write a Python program to group the sales data by Salesperson. For each

salesperson, calculate their **total sales** (sum of Total Sales).

4. Write a Python program to convert the Date column to date time format using Pandas.
5. Write a Python program to group the dataset by the Product column and calculate the **total units sold** and **total sales** for each product.