

## EXPERIMENT 9

Aim: To execute pandas program to create a Pivot table and find the total sale amount region wise, manager wise, sales man wise (refer sales\_data table).

### Pseudocode:

- 1) Import the necessary libraries (pandas)
- 2) Load the sales data into a pandas dataframe.
- 3) Create a pivot table using the pivot\_table() function to summarize the data by region, manager and salesman.
- 4) Calculating the sum of the sales amt.
- 5) Display the pivot tables result.

### Sample input:

Sales database (order date, Region, manager, sales man, Item, unit-price, sales amt)

### Sample output:

Region	Manager	Salesman	Sale amt
Central	Hermann	Luis shelli	43128.0
East	Timothy	shell	25000.0
	martha	David	6075.0
West	Timothy	Alexander	113810.0
		Stephen	67085.0

### Result:

Therefore the pandas execution for total sales amount executed successfully.

query lab - Colab

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query lab

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```
# Create pivot table to find total sale amount region-wise, manager-wise, and salesman-wise
pivot_table = df.pivot_table(values='Sale_amt', index=['Region', 'Manager', 'SalesMan'], aggfunc='sum')

# Display the pivot table
print(pivot_table)
```

Region	Manager	SalesMan	Sale_amt
Central	Hermann	Luis	43128.0
		Shelli	25000.0
	Timothy	David	6075.0
East	Martha	Alexander	113810.0
West	Timothy	Stephen	67088.0

```
[ ] import pandas as pd
import numpy as np

# Step 1: Create a DataFrame with 10 rows and 4 columns of random values
df = pd.DataFrame(np.random.randn(10, 4), columns=['A', 'B', 'C', 'D'])

# Step 2: Define a function to highlight negative numbers in red and positive numbers in black
def highlight_negative(val):
```

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