

1. Write a Pandas program to create a Pivot table and find the maximum and minimum sale value of the items.(refer sales_data table)

CODE :

7.Sales data.py - C:/Query processing/7.Sales data.py (3.11.1)

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```
import pandas as pd
```

```
data = {
```

```
    "OrderDate": [
```

```
        "1-6-18", "1-23-18", "2-9-18", "2-26-18", "3-15-18",
```

```
        "4-1-18", "4-18-18", "5-5-18", "5-22-18", "6-8-18",
```

```
        "6-25-18", "7-12-18", "7-29-18", "8-15-18", "9-1-18",
```

```
        "9-18-18", "10-5-18", "10-22-18"
```

```
    ],
```

```
    "Region": [
```

```
        "East", "Central", "Central", "Central", "West",
```

```
        "East", "Central", "Central", "West", "East",
```

```
        "Central", "East", "East", "East", "Central",
```

```
        "East", "Central", "East"
```

```
    ],
```

```
    "Manager": [
```

```
        "Martha", "Hermann", "Hermann", "Timothy", "Timothy",
```

```
        "Martha", "Martha", "Hermann", "Douglas", "Martha",
```

```
        "Hermann", "Martha", "Douglas", "Martha", "Douglas",
```

```
        "Martha", "Hermann", "Martha"
```

```
    ],
```

```
    "SalesMan": [
```

```
        "Alexander", "Shelli", "Luis", "David", "Stephen",
```

```
        "Alexander", "Steven", "Luis", "Michael", "Alexander",
```

```
        "Sigal", "Diana", "Karen", "Alexander", "John",
```

```
        "Alexander", "Sigal", "Alexander"
```

```
    ],
```

```

"Item": [
    "Television", "Home Theater", "Television", "Cell Phone", "Television",
    "Home Theater", "Television", "Television", "Television", "Home Theater",
    "Television", "Home Theater", "Home Theater", "Television", "Desk",
    "Video Games", "Home Theater", "Cell Phone"
],
"Units": [
    95, 50, 36, 27, 56,
    60, 75, 90, 32, 60,
    90, 29, 81, 35, 2,
    16, 28, 64
],
"Unit_price": [
    1198.00, 500.00, 1198.00, 225.00, 1198.00,
    500.00, 1198.00, 1198.00, 1198.00, 500.00,
    1198.00, 500.00, 500.00, 1198.00, 125.00,
    58.50, 500.00, 225.00
],
"Sale_amt": [
    113810.00, 25000.00, 43128.00, 6075.00, 67088.00,
    30000.00, 89850.00, 107820.00, 38336.00, 30000.00,
    107820.00, 14500.00, 40500.00, 41930.00, 250.00,
    936.00, 14000.00, 14400.00
]
}
}
df = pd.DataFrame(data)
# Create a Pivot table to find maximum and minimum sale value of the items
pivot_table = pd.pivot_table(df, values='Sale_amt', index='Item', aggfunc=['max', 'min'])
# Display the Pivot table
print(pivot_table)

```

OUTPUT:

```

IDLE Shell 3.11.1
File Edit Shell Debug Options Window Help
Python 3.11.1 (tags/v3.11.1:a7a450f, Dec 6 2022, 19:58:39) [MSC v.1934 64 bit (x86)]
Type "help", "copyright", "credits" or "license()" for more information.
>>>
===== RESTART: C:/Query processing/7.Sales data.py =====
      max    min
      Sale_amt Sale_amt
Item
Cell Phone   14400.0  6075.0
Desk          250.0   250.0
Home Theater 40500.0 14000.0
Television  113810.0 38336.0
Video Games   936.0   936.0
>>>

```