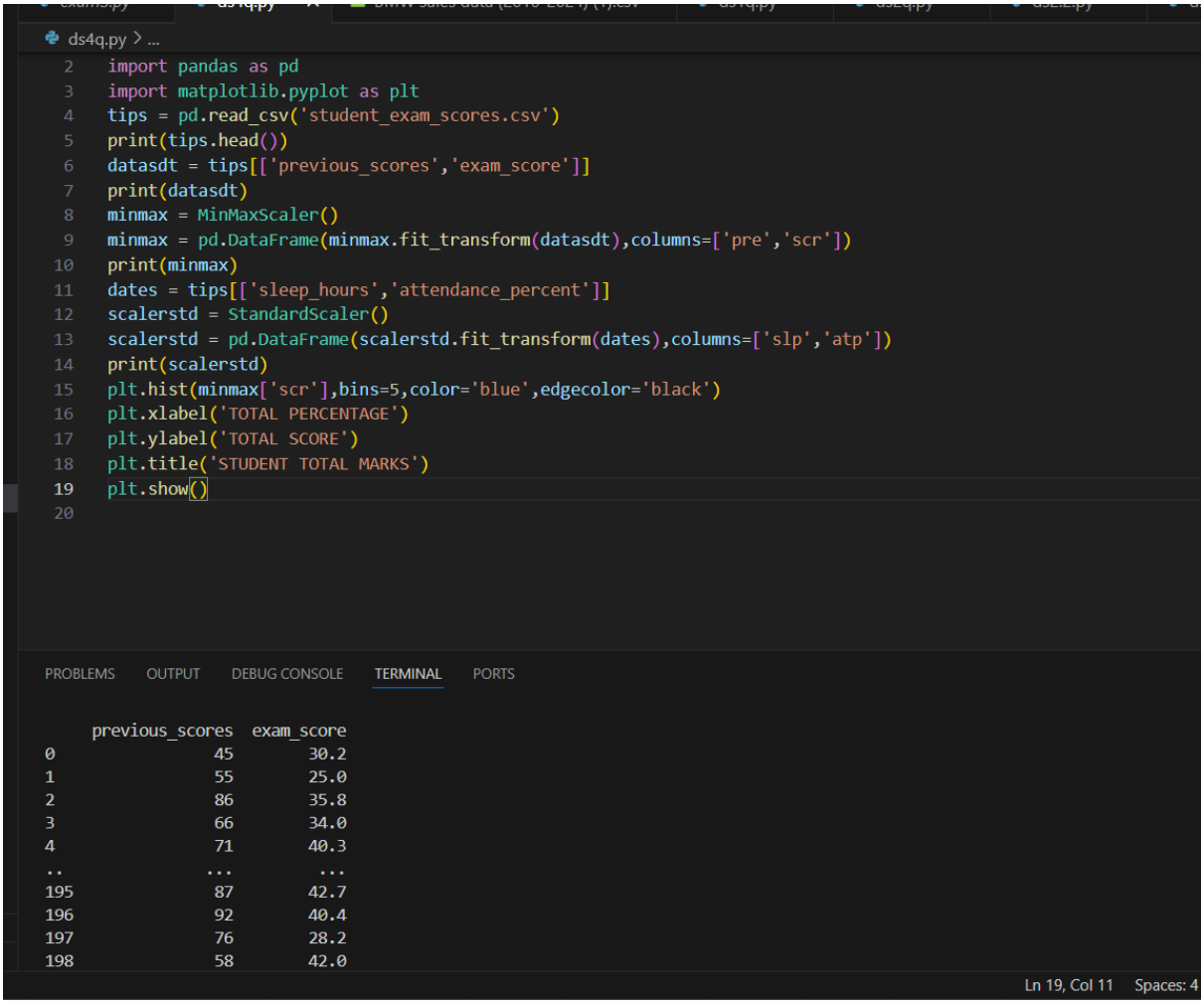
DATA SCIENCE WEEK III

PROGRAM:

```
from sklearn.preprocessing import MinMaxScaler,StandardScaler
import pandas as pd
import matplotlib.pyplot as plt
tips = pd.read_csv('student_exam_scores.csv')
print(tips.head())
datasdt = tips[['previous_scores','exam_score']]
print(datasdt)
minmax = MinMaxScaler()
minmax = pd.DataFrame(minmax.fit_transform(datasdt),columns=['pre','scr'])
print(minmax)
dates = tips[['sleep_hours','attendance_percent']]
scalerstd = StandardScaler()
scalerstd = pd.DataFrame(scalerstd.fit_transform(dates),columns=['slp','atp'])
print(scalerstd)
plt.hist(minmax['scr'],bins=5,color='blue',edgecolor='black')
plt.xlabel('TOTAL PERCENTAGE')
plt.ylabel('TOTAL SCORE')
plt.title('STUDENT TOTAL MARKS')
plt.show()
```

SCREEMSHOTS:



ds4q.py > ...

```python
import pandas as pd
import matplotlib.pyplot as plt
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```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
     previous_scores  exam_score
0                 45        30.2
1                 55        25.0
2                 86        35.8
3                 66        34.0
4                 71        40.3
..               ...         ...
195               87        42.7
196               92        40.4
197               76        28.2
198               58        42.0
```

Ln 19, Col 11 Spaces: 4

ds4q.py > ...

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```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
[200 rows x 2 columns]
          pre       scr
0    0.090909  0.383041
1    0.272727  0.230994
2    0.836364  0.546784
3    0.472727  0.494152
4    0.563636  0.678363
..        ...       ...
195  0.854545  0.748538
196  0.945455  0.681287
197  0.654545  0.324561
```

Ln 19, Col 11 Spaces:

Help

DS EXAM WORK

exam3.py | ds4q.py | BMW sales data (2010-2024) (1).csv | ds1q.py | ds2q.py | ds2.2.py

ds4q.py > ...

```
2   import pandas as pd
3   import matplotlib.pyplot as plt
4   tips = pd.read_csv('student_exam_scores.csv')
5   print(tips.head())
6   datasdt = tips[['previous_scores','exam_score']]
7   print(datasdt)
8   minmax = MinMaxScaler()
9   minmax = pd.DataFrame(minmax.fit_transform(datasdt),columns=['pre','scr'])
10  print(minmax)
11  dates = tips[['sleep_hours','attendance_percent']]
12  scalerstd = StandardScaler()
13  scalerstd = pd.DataFrame(scalerstd.fit_transform(dates),columns=['slp','atp'])
14  print(scalerstd)
15  plt.hist(minmax['scr'],bins=5,color='blue',edgecolor='black')
16  plt.xlabel('TOTAL PERCENTAGE')
17  plt.ylabel('TOTAL SCORE')
18  plt.title('STUDENT TOTAL MARKS')
19  plt.show()
20
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
[200 rows x 2 columns]
          slp       atp
0    1.458426 -0.192061
1    1.324503 -0.994074
2    1.056656 -0.079498
3   -1.220042  1.426035
4   -0.148655  1.053170
..        ...       ...
195 -0.818272  1.348648
196 -0.349540  0.722515
197  0.186154 -0.775983
```

Ln 19, Col 11 Sp