

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()
```

SCREENSHOTS:

```
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)
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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()
```

	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

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20

```

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

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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
```

In 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
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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

