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PRACTICAL 5 ON MATPLOTLIB

#CODE:

#EXTRACTINNG THE FILE

import pandas as pd

import matplotlib.pyplot as plt

df=pd.read_csv("testmarks1.csv")

print(df)

```
   RollNo   EDS    SON     DT     ET
0    801  43.05  27.79  28.70  27.79
1    802  43.47  28.52  28.98  27.89
2    803  42.24  28.16  28.16  25.63
3    804  39.24  26.16  26.16  26.16
4    805  40.90  26.03  27.27  25.65
5    806  39.47  26.31  26.31  25.21
6    807  41.68  25.63  27.79  25.46
7    808  42.19  27.61  28.13  26.21
8    809  44.75  28.35  29.83  28.21
9    810  46.95  28.88  31.30  28.53
```

#PLOTTING LINE GRAPH

import numpy as np

import pandas as pd

import matplotlib.pyplot as plt

df=pd.read_csv("testmarks1.csv")

```python
#Plot1
xpoints=np.array(df['RollNo'])
ypoints=np.array(df['EDS'])
plt.subplot(1,1,1)
plt.plot(xpoints,ypoints)
plt.title('EDS')
plt.grid()
plt.show()


#plot2
xp=np.array(df['RollNo'])
yp=np.array(df['SON'])
plt.subplot(2,1,2)
plt.plot(xp,yp)
plt.title('SON')
plt.grid()
plt.show()


#plot3
xp1=np.array(df['RollNo'])
yp1=np.array(df['DT'])
plt.subplot(3,1,3)
plt.plot(xp1,yp1)
plt.title('DT')
plt.show()


#plot4
xp2=np.array(df['RollNo'])
yp2=np.array(df['ET'])
```
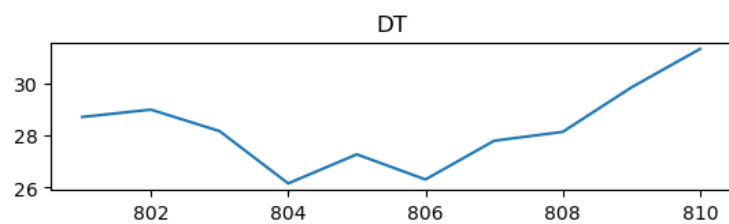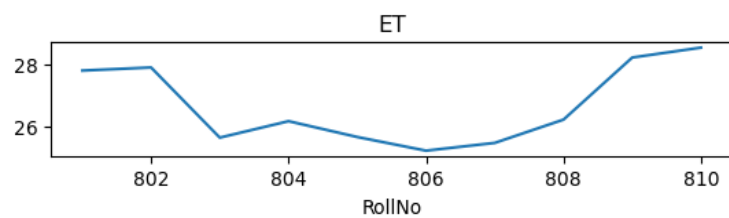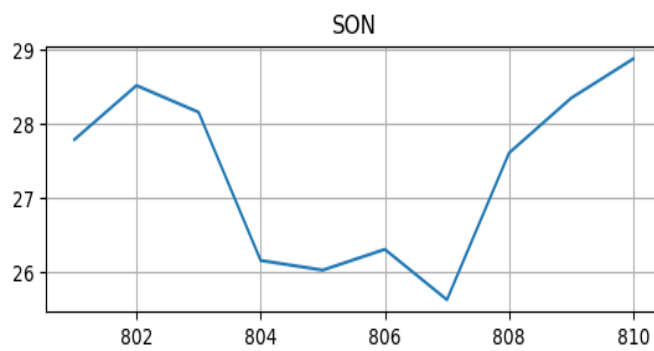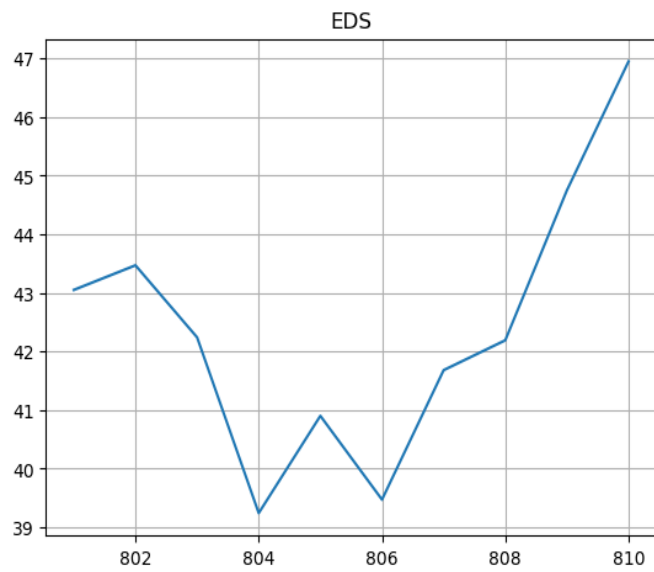
```
plt.subplot(4,1,4)

plt.plot(xp2,yp2)

plt.title('ET')


plt.xlabel('RollNo')

plt.show()
```

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

df=pd.read_csv("testmarks1.csv")
#Plot1
xpoints=np.array(df['RollNo'])
ypoints=np.array(df['EDS'])
plt.subplot(1,1,1)
plt.bar(xpoints,ypoints)
plt.title('EDS')
plt.show()

#plot2
xp=np.array(df['RollNo'])
yp=np.array(df['SON'])
plt.subplot(2,1,2)
plt.bar(xp,yp)
plt.title('SON')
plt.show()

#plot3
xp1=np.array(df['RollNo'])
yp1=np.array(df['DT'])
plt.subplot(3,1,3)
plt.bar(xp1,yp1)
plt.title('DT')
plt.show()
```
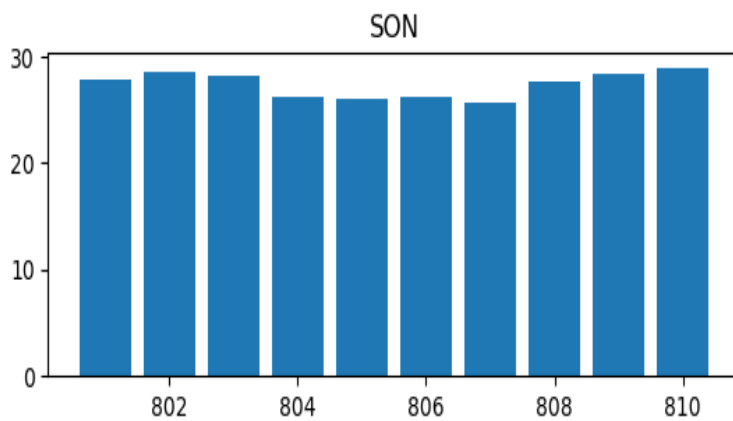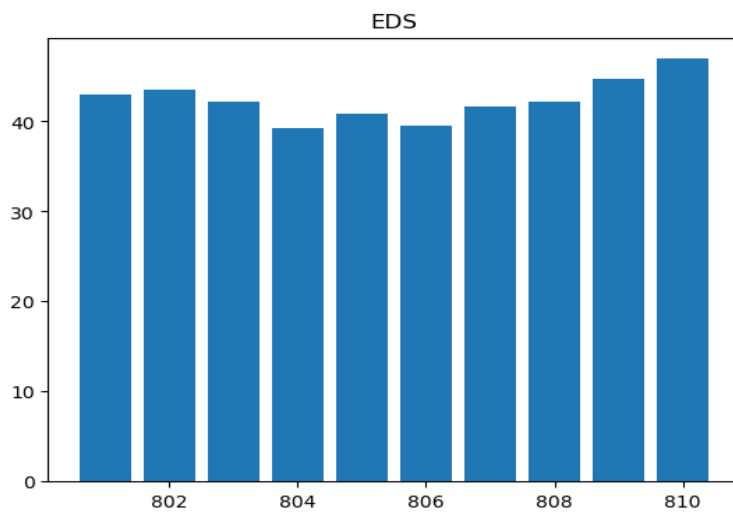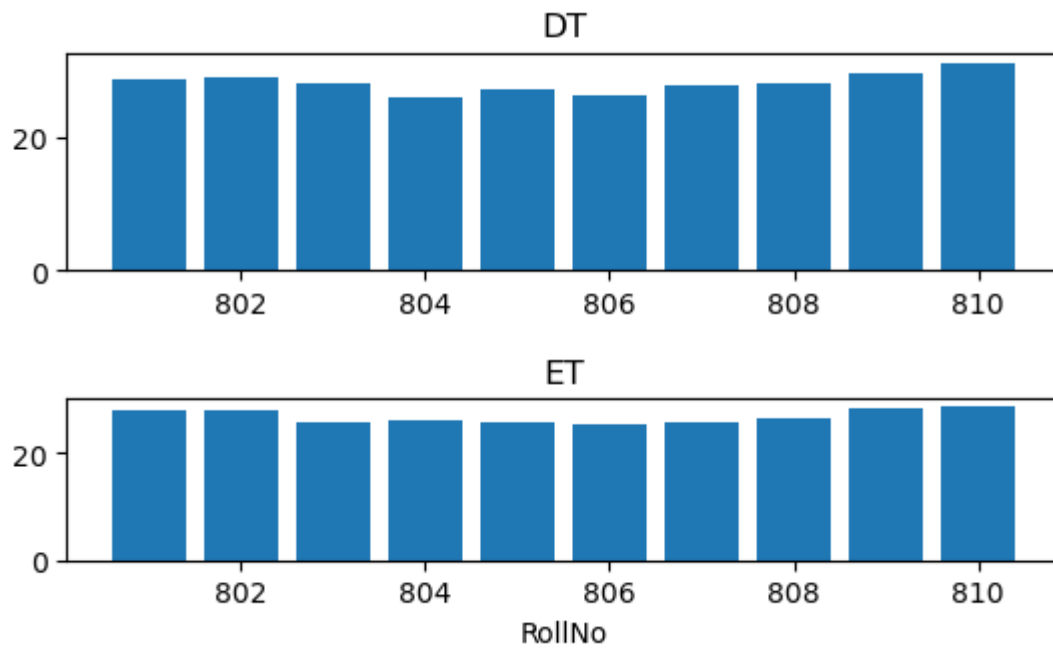
```
#plot4

xp2=np.array(df['RollNo'])

yp2=np.array(df['ET'])

plt.subplot(4,1,4)

plt.bar(xp2,yp2)

plt.title('ET')


plt.xlabel('RollNo')

plt.show()
```
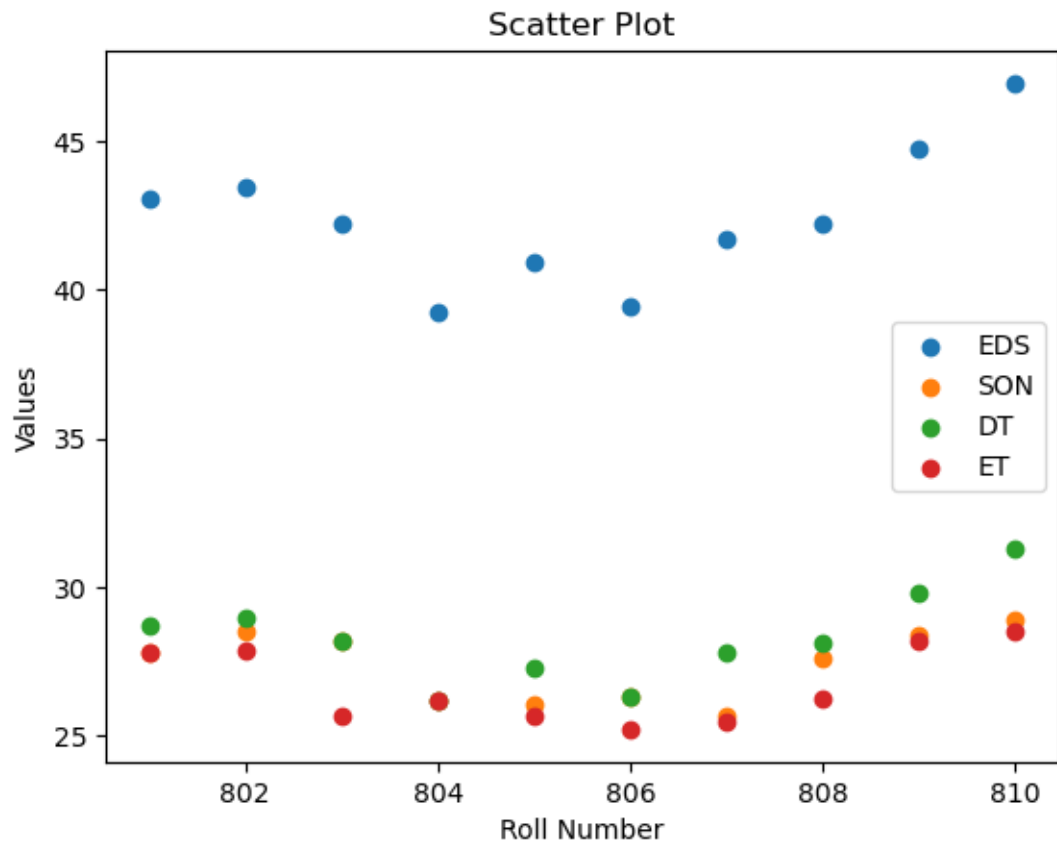
DT

ET

RollNo

#Plotting the scatter plot

plt.scatter(df['RollNo'], df['EDS'], label='EDS')

plt.scatter(df['RollNo'], df['SON'], label='SON')

plt.scatter(df['RollNo'], df['DT'], label='DT')

plt.scatter(df['RollNo'], df['ET'], label='ET')

plt.xlabel('Roll Number')

plt.ylabel('Values')

plt.title('Scatter Plot')

plt.legend()

plt.show()

Scatter Plot

Plotting the line plot

```
df.plot(x='RollNo', y=['EDS', 'SON', 'DT', 'ET'])

plt.xlabel('Roll Number')

plt.ylabel('Values')

plt.title('Line Plot')

plt.legend(['EDS', 'SON', 'DT', 'ET'])

plt.show()
```
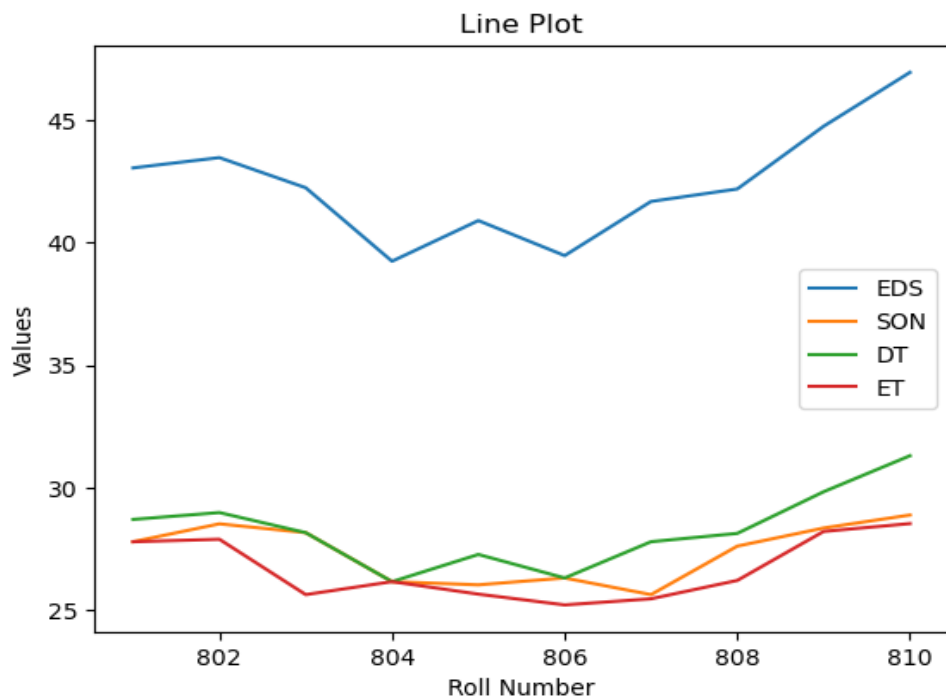
Plotting the bar plot

```
df.plot(x='RollNo', y=['EDS', 'SON', 'DT', 'ET'], kind='bar')

plt.xlabel('Roll Number')

plt.ylabel('Values')

plt.title('Bar Plot')

plt.show()# Plotting the bar plot

df.plot(x='RollNo', y=['EDS', 'SON', 'DT', 'ET'], kind='bar')

plt.xlabel('Roll Number')

plt.ylabel('Values')

plt.title('Bar Plot')

plt.show()
```

Bar Plot