PRACTICAL NO 5

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PRN: 202201040219
Roll No. 852[H3]

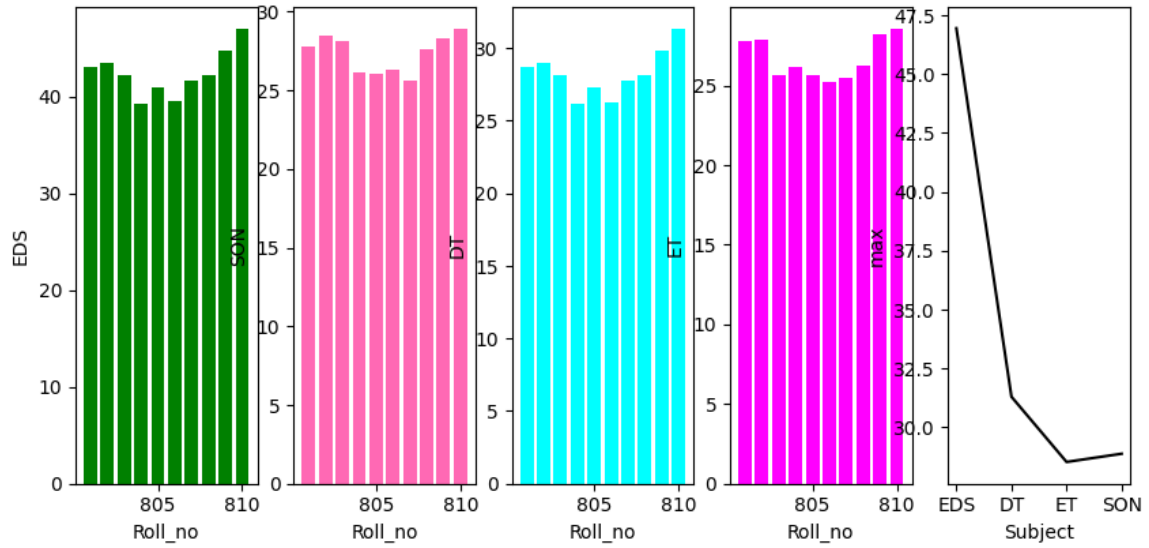
Code:-

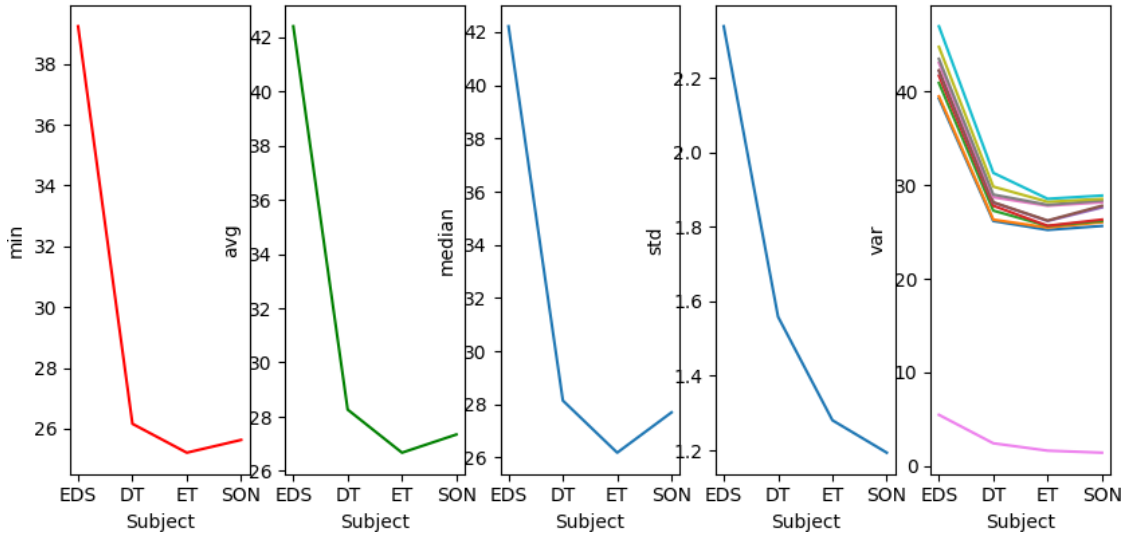
```
import matplotlib.pyplot as
 pltimport pandas as pd
import numpy as np
df=pd.read_csv('testmarks1.csv')
Roll_no=np.array(df['RollNo'])
EDS=np.array(df['EDS'])
SON=np.array(df['SON'])
DT=np.array(df['DT'])
ET=np.array(df['ET'])
Subject=['EDS','DT','ET','SON']

max=[]
max.append(df['EDS'].max())
max.append(df['DT'].max())
max.append(df['ET'].max())
max.append(df['SON'].max())

min=[]
min.append(df['EDS'].min())
min.append(df['DT'].min())
min.append(df['ET'].min())
min.append(df['SON'].min())

avg=[]
avg.append(df['EDS'].mean())
avg.append(df['DT'].mean())
avg.append(df['ET'].mean())
avg.append(df['SON'].mean())

std=[]
std.append(df['EDS'].std())
std.append(df['DT'].std())
std.append(df['ET'].std())
std.append(df['SON'].std())

median=[]
median.append(df['EDS'].median())
median.append(df['DT'].median())
median.append(df['ET'].median())
median.append(df['SON'].median())

mode=[]
mode.append(df['EDS'].mode())
```

```
mode.append(df['DT'].mode())
mode.append(df['ET'].mode())
mode.append(df['SON'].mode())

var=[]
var.append(df['EDS'].var())
var.append(df['DT'].var())
var.append(df['ET'].var())
var.append(df['SON'].var())

plt.figure(figsize=(10,10))

plt.subplot(2,5,1)
plt.bar(Roll_no,EDS,color='green')
plt.xlabel('Roll_no')
plt.ylabel('EDS')

plt.subplot(2,5,2)
plt.bar(Roll_no,SON,color='hotpink')
plt.xlabel('Roll_no')
plt.ylabel('SON')

plt.subplot(2,5,3)
plt.bar(Roll_no,DT,color='cyan')
plt.xlabel('Roll_no')
plt.ylabel('DT')

plt.subplot(2,5,4)
plt.bar(Roll_no,ET,color='magenta')
plt.xlabel('Roll_no')
plt.ylabel('ET')


plt.subplot(2,5,5)
plt.ylabel('max')
plt.xlabel('Subject')
plt.plot(Subject,max,color='black')

plt.subplot(2,5,6)
plt.ylabel('min')
plt.xlabel('Subject')
plt.plot(Subject,min,color='red')

plt.subplot(2,5,7)
plt.xlabel('Subject')
plt.ylabel('avg')
plt.plot(Subject,avg,color='green')
```

```
plt.subplot(2,5,8)
plt.xlabel('Subject')
plt.ylabel('median')
plt.plot(Subject,median)


plt.subplot(2,5
,9)
plt.xlabel('Sub
ject')
plt.ylabel('std
')
plt.plot(Subjec
t,std)


plt.subplot(2,5,
10)
plt.xlabel('Subj
ect')
plt.ylabel('mode
')
```

OUTPUT:-




min
avg
median
std
var
EDS
DT
ET
SON
Subject