

## Pandas + Matplotlib Project

```
/* Accept the class1 percentage class2,class3 as per user  
/* Create a DataFrame out of this Data out of this  
/* Get values from the columns of the DataFrame and plot a Comparison  
Plot(plot every data in  
#single plot) With different Colors  
#You need to compare the data using Line Plot as well as Scatter Plot.  
/* You need to compare the data using there subplots also
```

```
Roll_number=[]  
Class1=[]  
Class2=[]  
Class3=[]  
i=1  
while True:  
    print("Enter the details of students")  
    i=i+1  
    Roll_number.append(input("Enter the Roll number of student-"))  
    Class1.append(int(input("Enter the percentage of student in  
Class1-"))) )  
    Class2.append(int(input("Enter the percentage of student in  
Class2-"))) )  
    Class3.append(int(input("Enter the percentage of student in  
Class3-"))) )  
    print()  
    ch=input("Do you want to enter more(y/n)? ")  
    if (ch != 'y'):  
        break  
print()  
print("This are the percnetage of students in Class1,Class2 and  
Class3")  
dict={  
    "Roll_number":Roll_number,  
    "Class1":Class1,  
    "Class2":Class2,  
    "Class3":Class3  
}  
dict  
import pandas as pd  
per=pd.DataFrame(dict)  
per
```

```
Enter the details of students  
Enter the Roll number of student-1  
Enter the percentage of student in Class1-94  
Enter the percentage of student in Class2-83  
Enter the percentage of student in Class3-79
```

Do you want to enter more(y/n)? y  
Enter the details of students  
Enter the Roll number of student-2  
Enter the percentage of student in Class1-68  
Enter the percentage of student in Class2-92  
Enter the percentage of student in Class3-89

Do you want to enter more(y/n)? y  
Enter the details of students  
Enter the Roll number of student-3  
Enter the percentage of student in Class1-88  
Enter the percentage of student in Class2-71  
Enter the percentage of student in Class3-73

Do you want to enter more(y/n)? y  
Enter the details of students  
Enter the Roll number of student-4  
Enter the percentage of student in Class1-70  
Enter the percentage of student in Class2-96  
Enter the percentage of student in Class3-62

Do you want to enter more(y/n)? y  
Enter the details of students  
Enter the Roll number of student-5  
Enter the percentage of student in Class1-93  
Enter the percentage of student in Class2-59  
Enter the percentage of student in Class3-91

Do you want to enter more(y/n)? n

This are the percnetage of students in Class1,Class2 and Class3

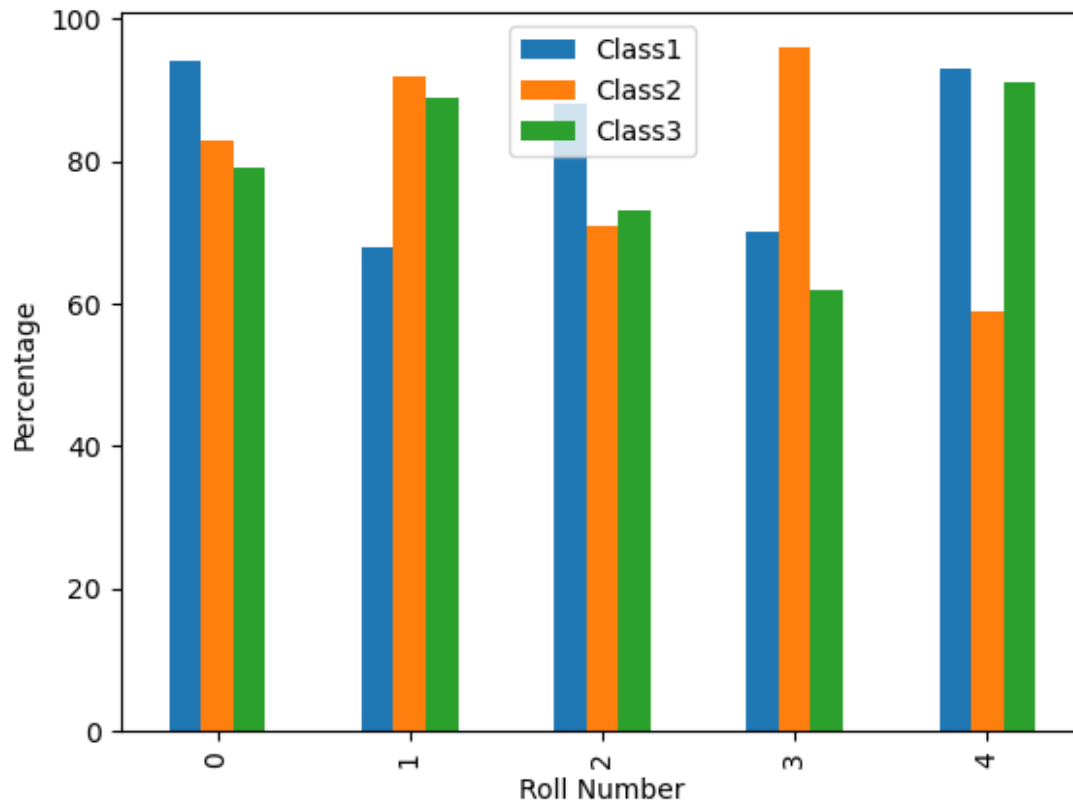
	Roll_number	Class1	Class2	Class3
0	1	94	83	79
1	2	68	92	89
2	3	88	71	73
3	4	70	96	62
4	5	93	59	91

```
per.to_csv('per.csv')
```

```
import matplotlib.pyplot as plt
```

```
per.plot.bar()  
plt.xlabel("Roll Number")  
plt.ylabel("Percentage")
```

```
Text(0, 0.5, 'Percentage')
```

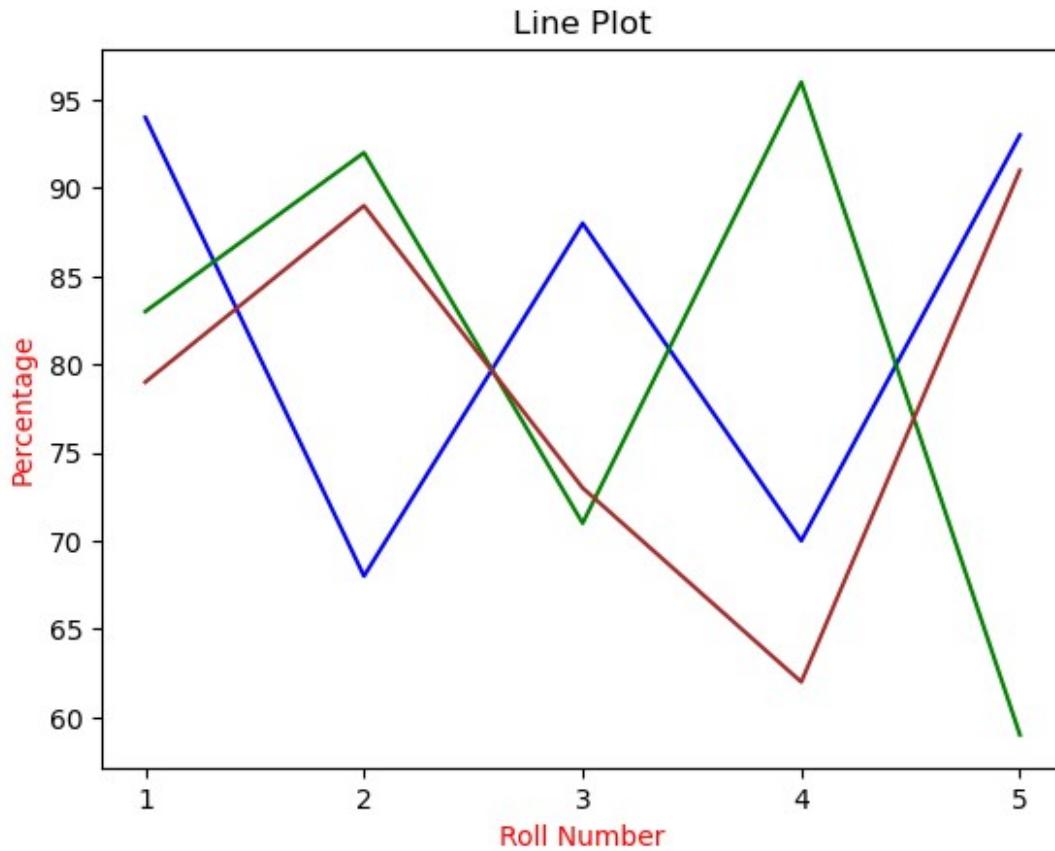


```
x=per["Roll_number"]  
plt.xlabel('Roll Number',color='red')  
plt.ylabel('Percentage',color='red')  
y=per["Class1"]  
plt.plot(x,y,color='blue')
```

```
y=per["Class2"]  
plt.plot(x,y,color='green')
```

```
y=per["Class3"]  
plt.plot(x,y,color='brown')  
plt.title("Line Plot" )
```

```
plt.show()
```

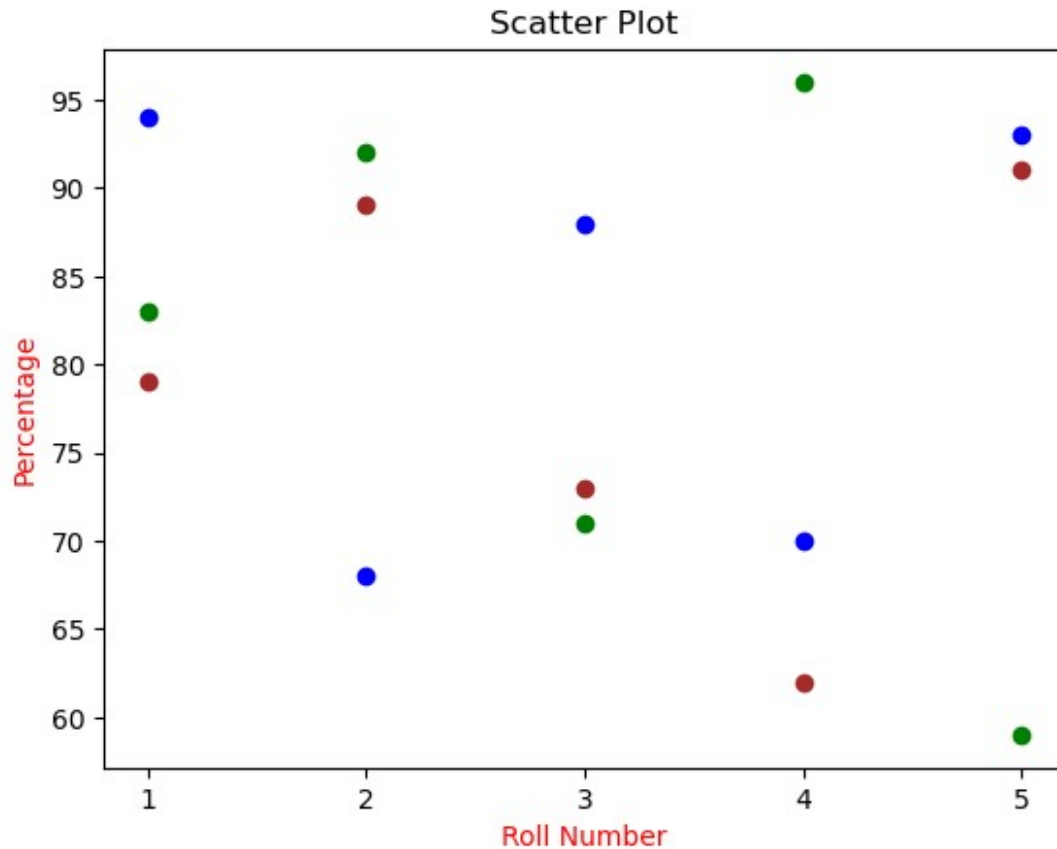


```
x=per["Roll_number"]
y=per["Class1"]
plt.scatter(x,y,color='blue')

y=per["Class2"]
plt.scatter(x,y,color='green')

y=per["Class3"]
plt.scatter(x,y,color='brown')
plt.xlabel("Roll Number",color='red')
plt.ylabel("Percentage",color='red')
plt.title("Scatter Plot")

plt.show()
```



```
x=per["Roll_number"]
y=per["Class1"]
plt.subplot(1,3,1)
plt.plot(x,y,color='blue')
plt.title("Class 1")
y=per["Class2"]

plt.subplot(1,3,2)
plt.plot(x,y,color='green')
plt.title("Class 2")

y=per["Class3"]

plt.subplot(1,3,3)
plt.plot(x,y,color='brown')
plt.title("Class 3")

Text(0.5, 1.0, 'Class 3')
```

