

EXERCISE OF MATPLOTLIB & SEABORN:

Dataset:Product.csv

month_number	facecream	facewash	toothpaste	bathingsoap	shampoo	moisturizer	total_units	total_profit
1	2500	1500	5200	9200	1200	1500	21100	211000
2	2630	1200	5100	6100	2100	1200	18330	183300
3	2140	1340	4550	9550	3550	1340	22470	224700
4	3400	1130	5870	8870	1870	1130	22270	222700
5	3600	1740	4560	7760	1560	1740	20960	209600
6	2760	1555	4890	7490	1890	1555	20140	201400
7	2980	1120	4780	8980	1780	1120	29550	295500
8	3700	1400	5860	9960	2860	1400	36140	361400
9	3540	1780	6100	8100	2100	1780	23400	234000
10	1990	1890	8300	10300	2300	1890	26670	266700
11	2340	2100	7300	13300	2400	2100	41280	412800
12	2900	1760	7400	14400	1800	1760	30020	300200

Use the following CSV file for this exercise. Read this file using Pandas or NumPy or using in-built matplotlib function.

Exercise 1: Read Total profit of all months and show it using a line plot

Exercise 2: Get total profit of all months and show line plot with the following Style properties

Generated line plot must include following Style properties: –

- Line Style dotted and Line-color should be red
- Show legend at the lower right location.
- X label name = Month Number
- Y label name = Sold units number
- Add a circle marker.
- Line marker color as read
- Line width should be 3

Exercise 4: Read toothpaste sales data of each month and show it using a scatter plot.

Exercise 5: Read face cream and facewash product sales data and show it using the bar chart. Save this plot to harddisk.

Exercise 6: Read the total profit of each month and show it using the histogram to see the most common profit ranges.

Exercise 7: Calculate total sale data for last year for each product and show it using a Pie chart.

Exercise 8: Read Bathing soap facewash of all months and display it using the Subplot.

Exercise 9: Read Bathing soap facewash of all months and display it using the Subplot.

Exercise 10: Read Bathing soap facewash of all months and display it using the Subplot.

Exercise 11: Write a Python program to draw a scatter plot comparing two subject marks of Mathematics and Science. Use marks of 10 students.

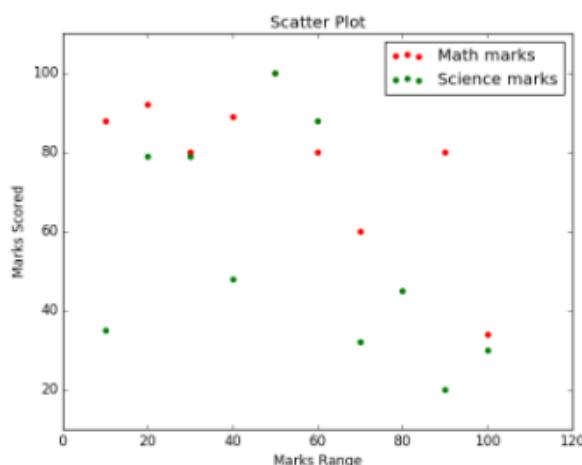
Sample data:

Test Data:

```
math_marks = [88, 92, 80, 89, 100, 80, 60, 100, 80, 34]
```

```
science_marks = [35, 79, 79, 48, 100, 88, 32, 45, 20, 30]
```

```
marks_range = [10, 20, 30, 40, 50, 60, 70, 80, 90, 100]
```



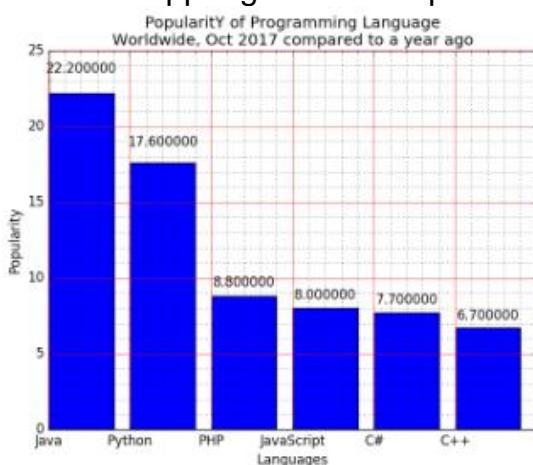
Exercise 12: Write a Python programming to display a bar chart of the popularity of programming Languages. Attach a text label above each bar displaying its popularity (float value).

Sample data:

Programming languages: Java, Python, PHP, JavaScript, C#, C++

Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7

The code snippet gives the output shown in the following screenshot:



SEABORN EXERCISES:

Exercise 1:Get correlation of columns of dataset(product.csv) using a seaborn

Exercise 2:plot the graph using KDE.

Exercise 3:plot the graph using Countplot.

Exercise 4:plot the graph using Clusterplot.

Exercise 5:plot the graph using distributed plot as figure level function.

Exercise 6:plot the graph using swarm plot.

Exercise 7:plot the graph using violin plot .

Exercise 8:plot the graph using Regression Plot .

Exercise 9:plot the graph using Matrix Plot .

Exercise 10:plot the graph using Distributed Plot .
