



Bar charts

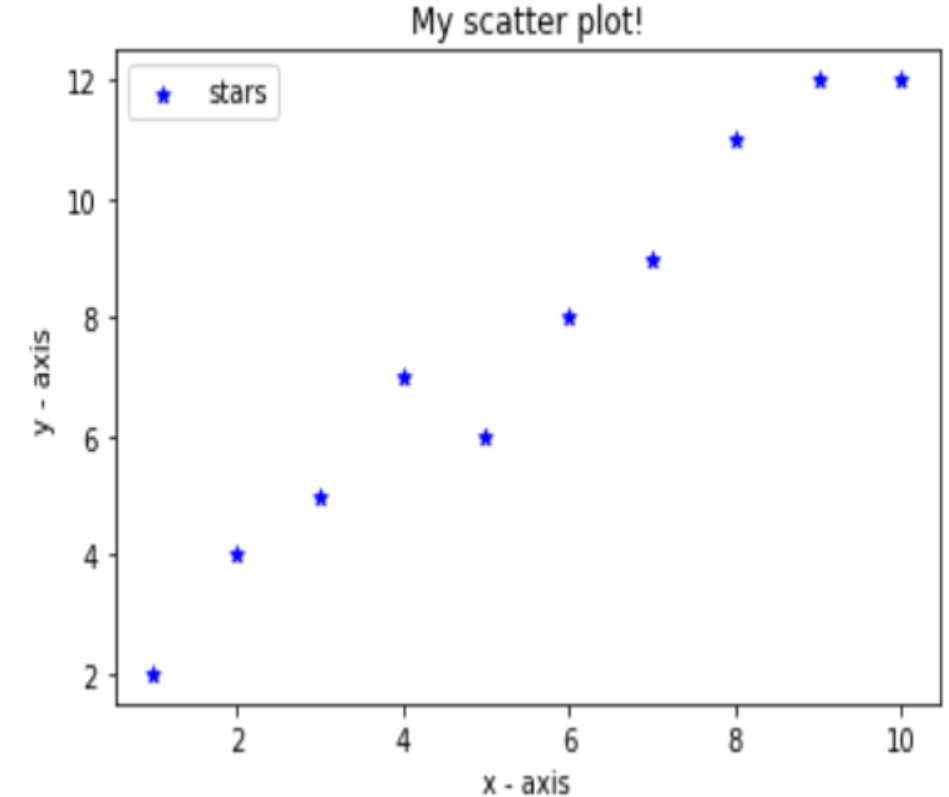
```
1 import matplotlib.pyplot as plt
2
3 left = [1, 2, 3, 4, 5]
4
5 height = [10, 24, 36, 40, 5]
6
7 tick_label = ['one', 'two', 'three', 'four', 'five']
8 |
9 plt.bar(left, height, tick_label = tick_label,
10         width = 0.8, color = ['red', 'green'])
11
12 plt.xlabel('x - axis')
13 plt.ylabel('y - axis')
14 plt.title('My bar chart!')
15
16 plt.show()
```





Scatter Plot

```
1 import matplotlib.pyplot as plt
2
3 x = [1,2,3,4,5,6,7,8,9,10]
4 y = [2,4,5,7,6,8,9,11,12,12]
5
6 plt.scatter(x, y, label= "stars", color= "blue",
7             marker= "*", s=30)
8
9 plt.xlabel('x - axis')
10 plt.ylabel('y - axis')
11 plt.title('My scatter plot!')
12 plt.legend()
13
14 plt.show()
```





Pie Charts

```
1 import matplotlib.pyplot as plt
2
3 activities = ['eat', 'sleep', 'work', 'play']
4 slices = [3, 7, 8, 6]
5
6 colors = ['r', 'y', 'g', 'b']
7
8 plt.pie(slices, labels = activities, colors=colors,
9         autopct = '%1.1f%%')
10
11 plt.legend()
12
13 plt.show()
```





Working with CSV Files

- **CSV** (Comma Separated Values) is a simple **file format** used to store tabular data, such as a spreadsheet or database.
- A CSV file stores tabular data (numbers and text) in plain text.
- Data1, Data2, Data3, Data4
- For working CSV files in python, there is an inbuilt module called [csv](#).





CSV files

- CSV files are normally created by programs that handle large amounts of data.
- They are a convenient way to export data from spreadsheets and databases as well as import or use it in other programs
- CSV files are very easy to work with programmatically.

A screenshot of a text editor window with a menu bar (File, Edit, Tools, Syntax, Buffers, Window, Help) and a toolbar. The editor displays a CSV file with the following content:

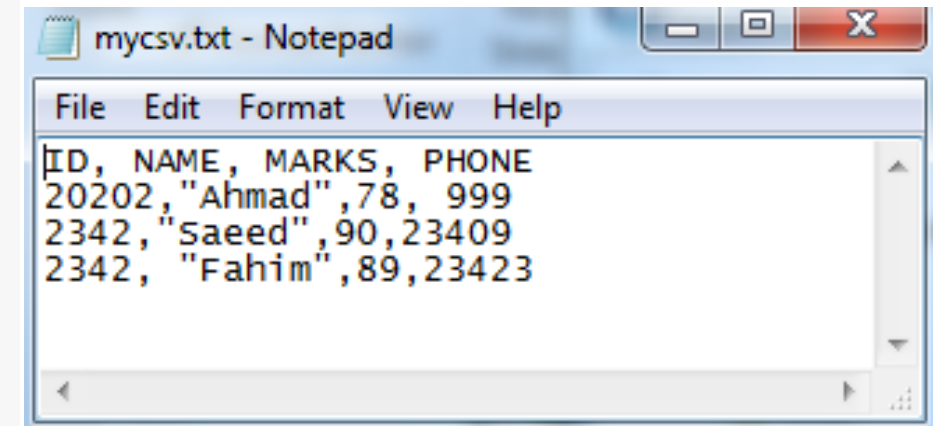
```
? Comment
HID,DEPTH,AZIMUTH,DIP
SAL_24,0.00,0.00,-90.00
SAL_24,4.00,0.00,-90.00
/ Another comment
SAL_24,6.75,0.00,-90.00
SAL_24,7.00,0.00,-90.00
SAL_24,7.50,0.00,-90.00
SAL_24,8.00,0.00,-90.00
SAL_24,10.00,0.00,-90.00
SAL_24,20.00,0.00,-90.00
SAL_24,30.00,0.00,-90.00
SAL_24,40.00,0.00,-90.00
SAL_24,50.00,0.00,-90.00
SAL_24,60.00,0.00,-90.00
SAL_24,70.00,0.00,-90.00
SAL_24,80.00,0.00,-90.00
SAL_24,90.00,0.00,-90.00
SAL_24,91.00,0.00,-90.00
SAL_24,92.00,0.00,-90.00
SAL_24,93.00,0.00,-90.00
SAL_24,94.00,0.00,-90.00
SAL_24,95.00,0.00,-90.00
SAL_24,96.00,0.00,-90.00
-- INSERT --
```

The status bar at the bottom right shows "13,25" and "Top".



Read data using CSV

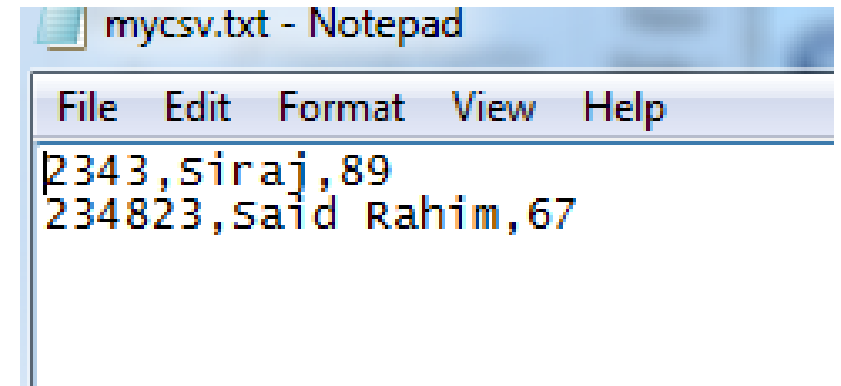
```
1 import csv
2
3 with open('mycsv.txt') as csv_file:
4     csv_reader = csv.reader(csv_file, delimiter=',')
5     line_count = 0
6     for row in csv_reader:
7         if line_count == 0:
8             print(f'Columns:{row}')
9             line_count += 1
10        else:
11            print(f'\t{row[0]} {row[1]} {row[2]}')
12            line_count += 1
```





Writing data into CSV files

```
1 import csv
2
3 with open('mycsv.txt', mode='w') as mycsvFile:
4     csv_writer = csv.writer(mycsvFile, delimiter=',')
5
6     csv_writer.writerow([2343, 'Siraj', 89])
7     csv_writer.writerow([234823, 'Said Rahim', 67])
```





Thank You!

