

```
#importing pandas
import pandas as pd
a=["ishu","geetha","chinnu","ramya","alekhya","prasanna","daakshinya"]
r=pd.Series(a,index=[67,43,56,78,32,21,34])
print(r)
```

```
dtype: object#csv file
df=pd.read_csv("/content/text.csv")
print(df)
print(df.loc[1])#loc function
print(df.loc[100:120])
```

```
dtype: object#text file
df1=pd.read_csv("/content/numpy.txt", sep=" ")
print(df1)
```

```
df.head(10)
df.shape
```

```
67      ishu
43      geetha
56      chinnu
78      ramya
32      alekhya
21      prasanna
34      daakshinya
dtype: object
      Unnamed: 0      text
label
0      0      i just feel really helpless and heavy hearted
4.0
1      1      ive enjoyed being able to slouch about relax a...
0.0
2      2      i gave up my internship with the dmrp and am f...
4.0
3      3      i dont know i feel so lost
0.0
4      4      i am a kindergarten teacher and i am thoroughl...
4.0
...      ...      ...
...
19674      19674      i feel like an inadequate mother
0.0
19675      19675      i get the feeling that the chick that hes mack...
1.0
19676      19676      i know that i am capable of feeling passionate...
2.0
19677      19677      i that self conscious and feel that distraught...
4.0
19678      19678      i would feel absolutely horrible if she has
```

NaN

[19679 rows x 3 columns]

Unnamed: 0 1

text ive enjoyed being able to slouch about relax a...

label 0.0

Name: 1, dtype: object

Unnamed: 0 text

label

100 100 i get the same feeling gp amp fab but then i a...

1.0

101 101 i feel stupid that i felt that way about you b...

0.0

102 102 i cant stop talking even though im already fee...

4.0

103 103 i stood before my newly rebuilt bike looking a...

4.0

104 104 i feel every word of mine is so valuable that ...

1.0

105 105 i was feeling a little remorseful that even jo...

0.0

106 106 i feel extremely irritable today and i am crav...

3.0

107 107 im not feeling so enamoured with them now as t...

1.0

108 108 i watch the film i feel sympathetic for all th...

2.0

109 109 i feel better and worse

1.0

110 110 i knew that ive been nominated by angel i feel...

1.0

111 111 i feel awfully isolated as if i have no one to...

0.0

112 112 i like super committed like to the point where...

1.0

113 113 i am feeling alarmed now so i need to stop and...

4.0

114 114 i feel triumphant for some reason

1.0

115 115 i don t feel and look like one maybe because i...

2.0

116 116 i really love reading bible because i can feel...

5.0

117 117 ive been feeling hopeless and helpless

0.0

118 118 i feel like ive pressured her into this so i t...

4.0

119 119 i feel so useless and dont know how to trust p...

0.0

```

120          120 i would have just told him how i was feeling m...
1.0
   1  2  3  4  5
0  6  7  8  9  1
1  5  4  3  2  1

```

```
(19679, 3)
```

```

from google.colab import drive
drive.mount('/content/drive')

```

```
Mounted at /content/drive
```

```

import pandas as pd
df=pd.read_excel("/content/Historicalinvesttemp.xlsx",sheet_name="Sheet3")#excel sheet
print(df)
df=df.drop_duplicates()
print(df)

```

```

df=pd.read_excel("/content/Historicalinvesttemp.xlsx",sheet_name="Sheet2")
print(df)

```

	Unnamed: 0	Unnamed: 1	Unnamed: 2	Unnamed: 3
0	NaN	NaN	NaN	NaN
1	NaN	NaN	NaN	NaN
2	NaN	Annual Returns on Investments in	NaN	NaN
3	Year	Stocks	T.Bills	T.Bonds
4	1928	0.4381	0.0308	0.0084
5	1929	-0.083	0.0316	0.042
6	1930	-0.2512	0.0455	0.0454
7	1931	-0.4384	0.0231	-0.0256
8	1932	-0.0864	0.0107	0.0879
9	1933	0.4998	0.0096	0.0186
10	1934	-0.0119	0.003	0.0796
11	1935	0.4674	0.0023	0.0447
12	1936	0.3194	0.0015	0.0502
13	1937	-0.3534	0.0012	0.0138
14	1938	0.2928	0.0011	0.0421
15	1939	-0.011	0.0003	0.0441
16	1940	-0.1067	0.0004	0.054
17	1941	-0.1277	0.0002	-0.0202
18	1942	0.1917	0.0033	0.0229
19	1943	0.2506	0.0038	0.0249
20	1944	0.1903	0.0038	0.0258
21	1945	0.3582	0.0038	0.038
	Unnamed: 0	Unnamed: 1	Unnamed: 2	Unnamed: 3

0	NaN	NaN	NaN	NaN
2	NaN	Annual Returns on Investments in	NaN	NaN
3	Year	Stocks	T.Bills	T.Bonds
4	1928	0.4381	0.0308	0.0084
5	1929	-0.083	0.0316	0.042
6	1930	-0.2512	0.0455	0.0454
7	1931	-0.4384	0.0231	-0.0256
8	1932	-0.0864	0.0107	0.0879
9	1933	0.4998	0.0096	0.0186
10	1934	-0.0119	0.003	0.0796
11	1935	0.4674	0.0023	0.0447
12	1936	0.3194	0.0015	0.0502
13	1937	-0.3534	0.0012	0.0138
14	1938	0.2928	0.0011	0.0421
15	1939	-0.011	0.0003	0.0441
16	1940	-0.1067	0.0004	0.054
17	1941	-0.1277	0.0002	-0.0202
18	1942	0.1917	0.0033	0.0229
19	1943	0.2506	0.0038	0.0249
20	1944	0.1903	0.0038	0.0258
21	1945	0.3582	0.0038	0.038

	Unnamed: 0	Unnamed: 1	Unnamed: 2
0	name	pin	percentage
1	geetha	2	80
2	aishu	3	100
3	chinnu	6	105
4	geetha	2	80
5	aishu	3	100
6	chinnu	6	105

```
import pandas as pd
df=pd.read_csv("/content/text.csv")
print(df)
df.shape
a=df.tail(10)
a.to_csv("s.csv")
print(a)
print(a.groupby(['text'])['label'].count())
print(a)
```

	Unnamed: 0	text
label		
0	0	i just feel really helpless and heavy hearted
4.0		
1	1	ive enjoyed being able to slouch about relax a...
0.0		
2	2	i gave up my internship with the dmrg and am f...
4.0		
3	3	i dont know i feel so lost
0.0		

```

4          4  i am a kindergarten teacher and i am thoroughl...
4.0
...          ...
...
243735      243735  i feel the effects of a delicious large pineap...
1.0
243736      243736          i cant help but feel a little disheartened
0.0
243737      243737  ive really gotten into the series and now feel...
1.0
243738      243738  i refuse to admit that there are actually thin...
0.0
243739      243739  ive moved in with my girlfriend and while we h...
NaN

[243740 rows x 3 columns]
      Unnamed: 0          text
label
243730      243730      i feel like our society sets us up to be greedy
3.0
243731      243731  i feel completely defeated in the mom departme...
0.0
243732      243732  i feel especially fond of it because of that a...
2.0
243733      243733          i am feeling very needy of affection today
0.0
243734      243734          i feel honoured in being approved by mr
1.0
243735      243735  i feel the effects of a delicious large pineap...
1.0
243736      243736          i cant help but feel a little disheartened
0.0
243737      243737  ive really gotten into the series and now feel...
1.0
243738      243738  i refuse to admit that there are actually thin...
0.0
243739      243739  ive moved in with my girlfriend and while we h...
NaN
text
i am feeling very needy of affection today
1
i cant help but feel a little disheartened
1
i feel completely defeated in the mom department lately
1
i feel especially fond of it because of that and because i believe so
strongly we playworkers need to be doing meaningful community based
work      1
i feel honoured in being approved by mr

```

```

1
i feel like our society sets us up to be greedy
1
i feel the effects of a delicious large pineapple shake i drank on the
way to work
1
i refuse to admit that there are actually things that im not the best
at and when i do admit that i feel devastated
1
ive moved in with my girlfriend and while we have our problems for
sure it feels real it feels loving and i love her
0
ive really gotten into the series and now feel much more eager to
finish the series

```

```

1
Name: label, dtype: int64
      Unnamed: 0                                     text

```

```

label
243730      243730      i feel like our society sets us up to be greedy
3.0
243731      243731      i feel completely defeated in the mom departme...
0.0
243732      243732      i feel especially fond of it because of that a...
2.0
243733      243733              i am feeling very needy of affection today
0.0
243734      243734              i feel honoured in being approved by mr
1.0
243735      243735      i feel the effects of a delicious large pineap...
1.0
243736      243736              i cant help but feel a little disheartened
0.0
243737      243737      ive really gotten into the series and now feel...
1.0
243738      243738      i refuse to admit that there are actually thin...
0.0
243739      243739      ive moved in with my girlfriend and while we h...
NaN

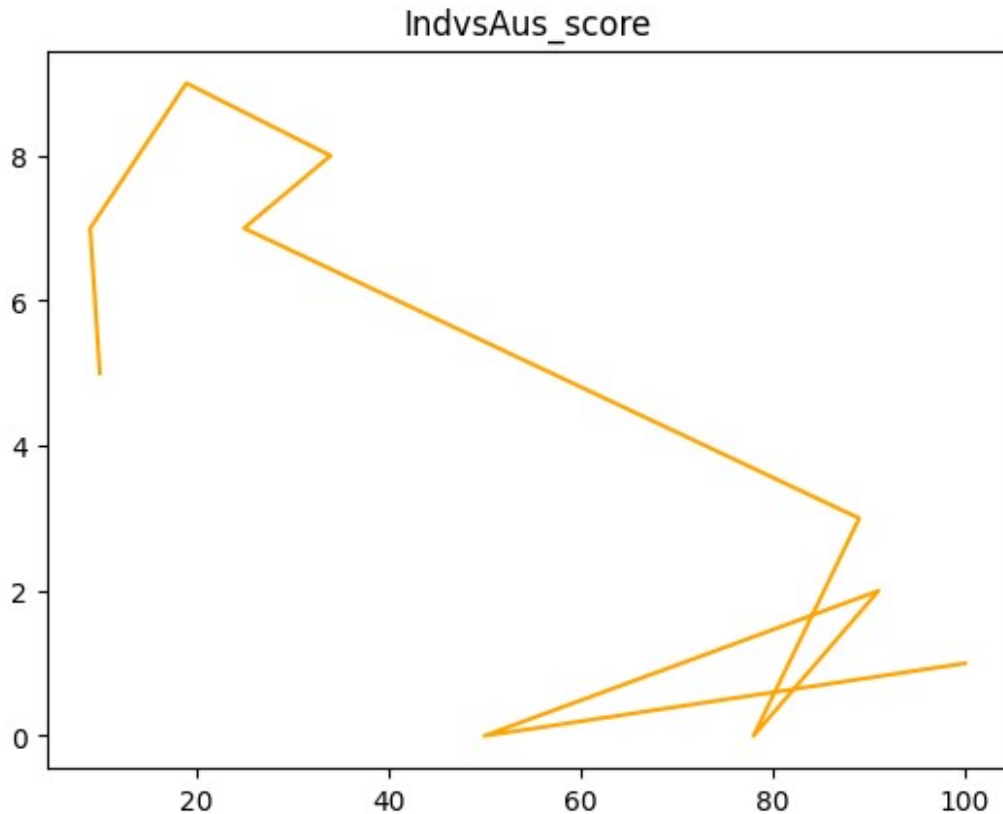
```

```

import numpy as np
import matplotlib.pyplot as plt
runs=np.array([100,50,91,78,89,25,34,19,9,10])
w=np.array([1,0,2,0,3,7,8,9,7,5])
plt.plot(runs,w,color='orange')
plt.title('IndvsAus_score')
plt.show

<function matplotlib.pyplot.show(close=None, block=None)>

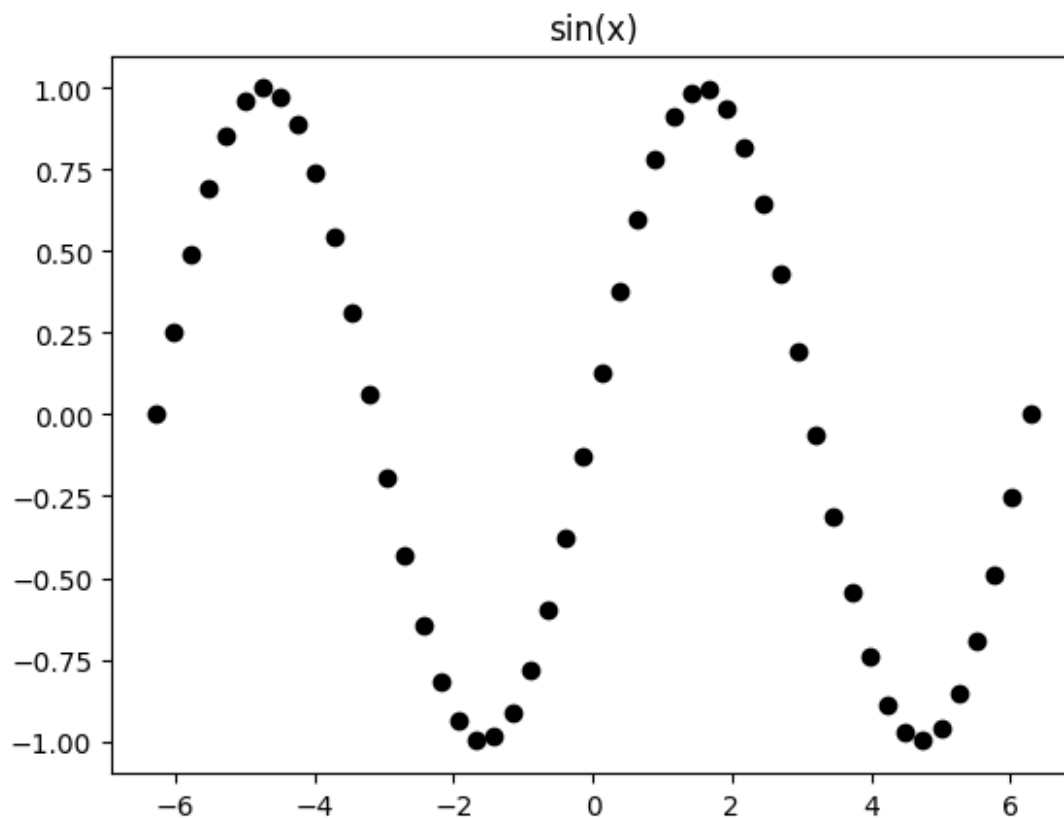
```



```
import numpy as np
import matplotlib.pyplot as plt
#generate array of 200 values between -pi and pi
tigar=np.linspace(-2*np.pi,2*np.pi,50)
print(tigar)
plt.scatter(tigar,np.sin(tigar),color='black')
plt.title("sin(x)")
plt.show()
```

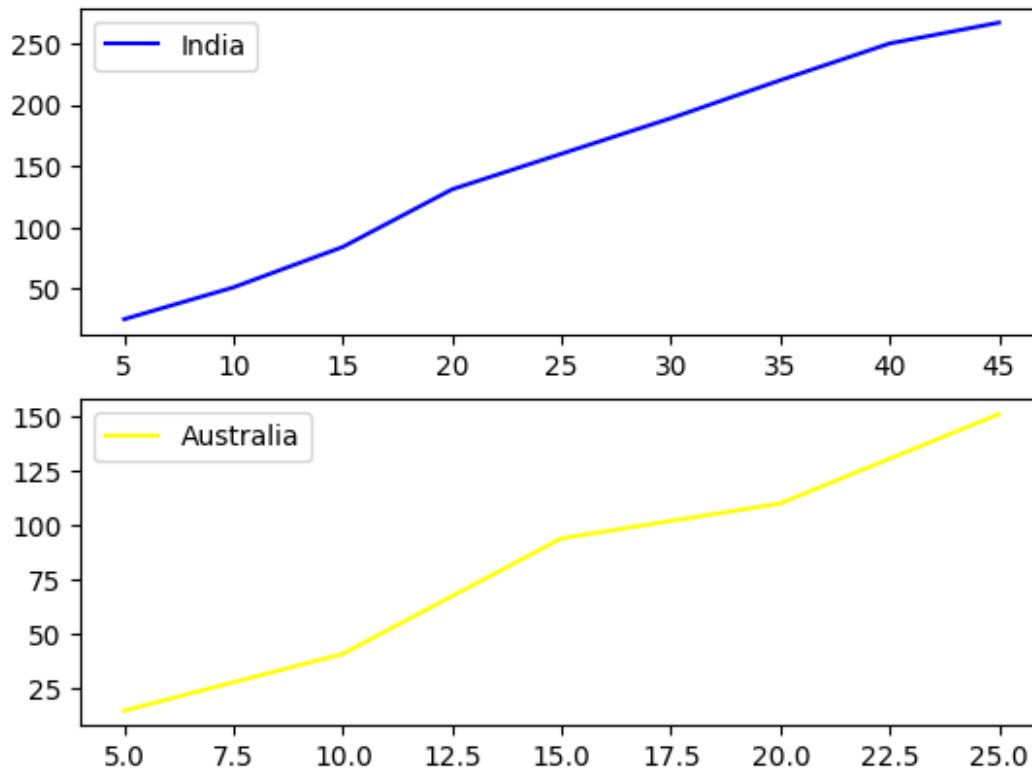
```
[-6.28318531 -6.02672876 -5.77027222 -5.51381568 -5.25735913 -
5.00090259
-4.74444605 -4.48798951 -4.23153296 -3.97507642 -3.71861988 -
3.46216333
-3.20570679 -2.94925025 -2.6927937 -2.43633716 -2.17988062 -
1.92342407
-1.66696753 -1.41051099 -1.15405444 -0.8975979 -0.64114136 -
0.38468481
-0.12822827 0.12822827 0.38468481 0.64114136 0.8975979
1.15405444
1.41051099 1.66696753 1.92342407 2.17988062 2.43633716
2.6927937
2.94925025 3.20570679 3.46216333 3.71861988 3.97507642
4.23153296
4.48798951 4.74444605 5.00090259 5.25735913 5.51381568
```

5.77027222  
6.02672876 6.28318531]



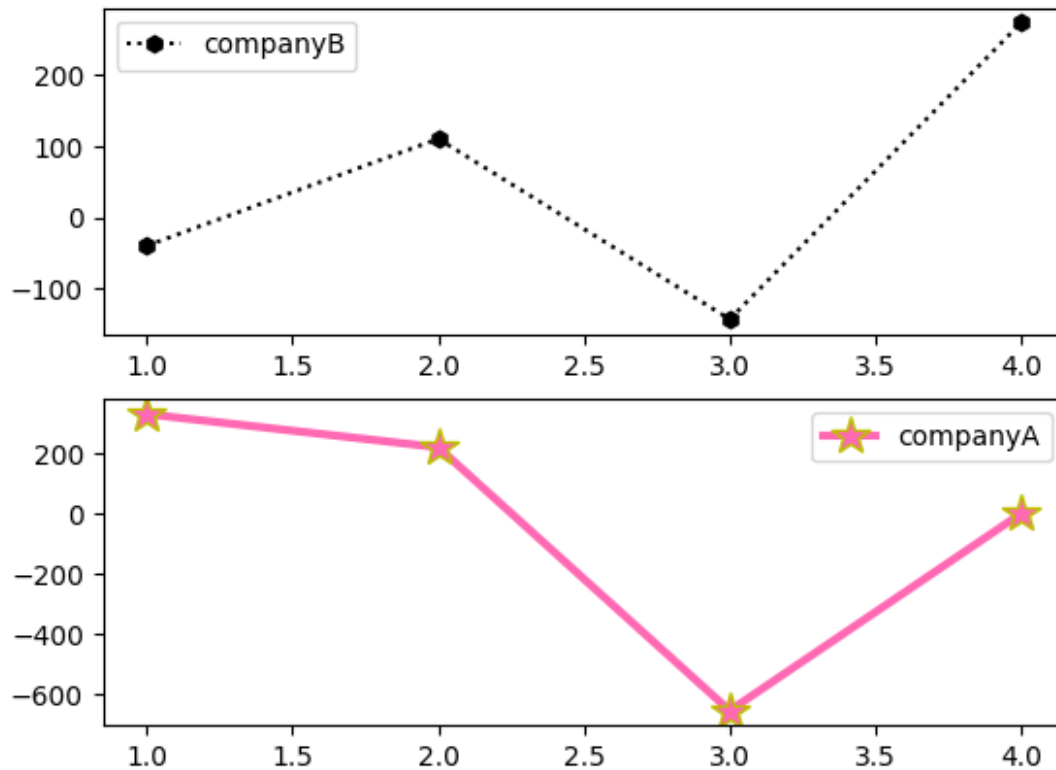
```
import numpy as np
import matplotlib.pyplot as plt
overs=np.arange(5,50,5)
overs_a=np.arange(5,30,5)
runs_i=np.array([25,51,84,131,160,189,220,250,267])
runs_a=np.array([15,41,94,110,151])
wickets=np.array([12,32,96])
plt.subplot(2,1,1)
plt.plot(overs,runs_i,color='blue',label='India')
plt.legend(loc='best')
plt.subplot(2,1,2)
plt.plot(overs_a,runs_a,color='yellow',label='Australia')
plt.legend(loc='best')
plt.show()
```





```
import matplotlib.pyplot as plt
a=[230,560,780,127,128]
b=[200,160,270,127,400]
years=[1,2,3,4]
profit_a=[(a[i]-a[i-1])for i in range(1,len(a))]
profit_b=[(b[i]-b[i-1])for i in range(1,len(b))]
plt.subplot(2,1,2)
plt.plot(years,profit_a,color='hotpink',linewidth='3',label='companyA',
,marker='*',ms='15',mec='y')
plt.legend(loc='best')
plt.subplot(2,1,1)
plt.plot(years,profit_b,color='black',linestyle='dotted',label='companyB',marker='h')
plt.legend(loc='best')
```

<matplotlib.legend.Legend at 0x7c0de4712fe0>



```
import matplotlib.pyplot as plt
a=np.array([25,60,5,10])
labe=["aiml","python","pandas","numpy"]
plt.pie(a,labels=labe)
plt.show()

a=np.array([25,60,5,10])
labe=["aiml","python","pandas","numpy"]
explo=[0,0.2,0.2,0]
plt.pie(a,labels=labe,explode=explode,startangle=360,colors = ['pink',
'yellow', 'purple', 'red'],textprops={'fontsize': 14})
plt.show()
```

