lesson-7-import

October 13, 2023

[11]:
```
import math
print(math.cos(90))
print(math.pi)
```

```
-0.4480736161291701
3.141592653589793
```

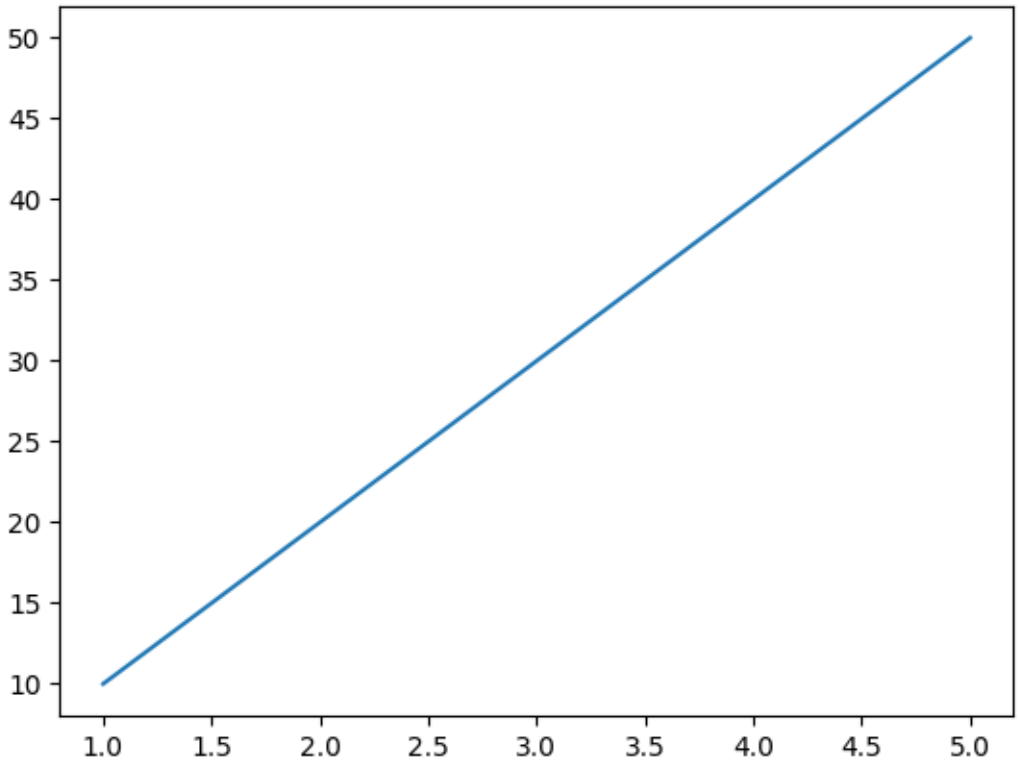
[12]:
```
from math import pi
print(pi)
```

```
3.141592653589793
```

[13]:
```
import matplotlib.pyplot as plt

x=[1,2,3,4,5]
y=[10,20,30,40,50]
plt.plot(x,y)
```

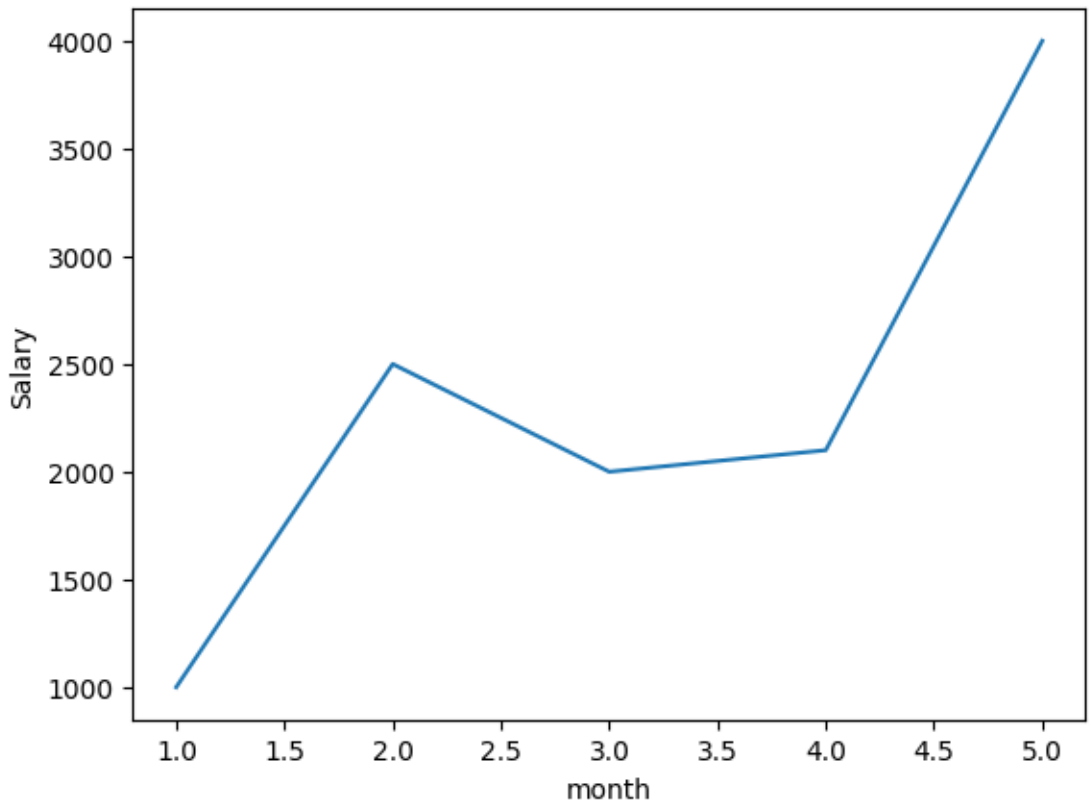
[13]: [<matplotlib.lines.Line2D at 0x7c32989a9bd0>]



[21]:
```
import matplotlib.pyplot as plt

x=[1,2,3,4,5]
y=[1000,2500,2000,2100,4000]
plt.plot(x,y)
plt.xlabel("month")
plt.ylabel("Salary")
```

[21]: Text(0, 0.5, 'Salary')



[22]:
```
import pandas as pd

df=pd.read_csv('train_data.csv')
```

[24]:
```
df.head(2)
```

[24]:
```
    Loan_ID Gender Married Dependents Education Self_Employed  \
0  LP001002   Male      No          0  Graduate            No
1  LP001003   Male     Yes          1  Graduate            No

   ApplicantIncome  CoapplicantIncome  LoanAmount  Loan_Amount_Term  \
0             5849                0.0         NaN             360.0
1             4583             1508.0       128.0             360.0

   Credit_History Property_Area Loan_Status
0             1.0         Urban           Y
1             1.0         Rural           N
```

[25]:
```
df.tail(10)
```

[25]:

	Loan_ID	Gender	Married	Dependents	Education	Self_Employed	ApplicantIncome	CoapplicantIncome	LoanAmount	Loan_Amount_Term	Credit_History	Property_Area	Loan_Status
604	LP002959	Female	Yes	1	Graduate	No	12000	0.0	496.0	360.0	1.0	Semiurban	Y
605	LP002960	Male	Yes	0	Not Graduate	No	2400	3800.0	NaN	180.0	1.0	Urban	N
606	LP002961	Male	Yes	1	Graduate	No	3400	2500.0	173.0	360.0	1.0	Semiurban	Y
607	LP002964	Male	Yes	2	Not Graduate	No	3987	1411.0	157.0	360.0	1.0	Rural	Y
608	LP002974	Male	Yes	0	Graduate	No	3232	1950.0	108.0	360.0	1.0	Rural	Y
609	LP002978	Female	No	0	Graduate	No	2900	0.0	71.0	360.0	1.0	Rural	Y
610	LP002979	Male	Yes	3+	Graduate	No	4106	0.0	40.0	180.0	1.0	Rural	Y
611	LP002983	Male	Yes	1	Graduate	No	8072	240.0	253.0	360.0	1.0	Urban	Y
612	LP002984	Male	Yes	2	Graduate	No	7583	0.0	187.0	360.0	1.0	Urban	Y
613	LP002990	Female	No	0	Graduate	Yes	4583	0.0	133.0	360.0	0.0	Semiurban	N

[27]:
```
df.describe().T
```

[27]:

	count	mean	std	min	25%	50%	75%	max
ApplicantIncome	614.0	5403.459283	6109.041673	150.0	2877.5	3812.5	5795.00	81000.0
CoapplicantIncome	614.0	1621.245798	2926.248369	0.0	0.0	1188.5		
LoanAmount	592.0	146.412162	85.587325	9.0	100.0	128.0		
Loan_Amount_Term	600.0	342.000000	65.120410	12.0	360.0	360.0		
Credit_History	564.0	0.842199	0.364878	0.0	1.0	1.0		

```
CoapplicantIncome  2297.25  41667.0
LoanAmount          168.00    700.0
Loan_Amount_Term    360.00    480.0
Credit_History        1.00      1.0
```

[28]:
```
df.iloc[:,0:2]
```

[28]:
```
      Loan_ID  Gender
0    LP001002    Male
1    LP001003    Male
2    LP001005    Male
3    LP001006    Male
4    LP001008    Male
..        …     …
609  LP002978  Female
610  LP002979    Male
611  LP002983    Male
612  LP002984    Male
613  LP002990  Female

[614 rows x 2 columns]
```