matplot 3d scatter plot

```
import numpy as np
import matplotlib.pyplot as plt
from mpl_toolkits.mplot3d import Axes3D

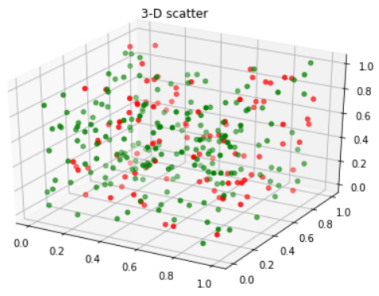
fig = plt.figure()
ax = Axes3D(fig)

x=np.random.rand(100)
y=np.random.rand(100)
z=np.random.rand(100)

x1=np.random.rand(200)
y1=np.random.rand(200)
z1=np.random.rand(200)

ax.scatter(x,y,z,c='r')
ax.scatter(x1,y1,z1,c='g')

plt.title('3-D scatter')
plt.show()
```

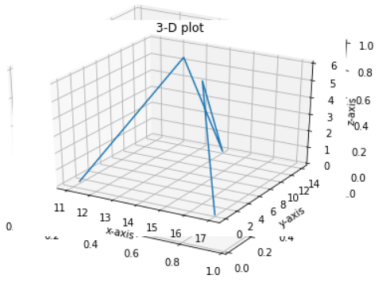


matplot 3d plot

```
import matplotlib.pyplot as plt
from mpl_toolkits.mplot3d import Axes3D

fig = plt.figure()
ax = Axes3D(fig)
ax = fig.add_subplot(111,projection='3d')
x=[11,13,14,15,17]
y=[1,11,14,6,0]
z=[0,6,0,6,0]
ax.plot(x,y,z)

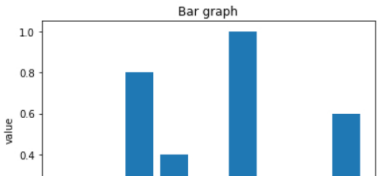
ax.set_xlabel('x-axis')
ax.set_ylabel('y-axis')
ax.set_zlabel('z-axis')
plt.title('3-D plot')
plt.show()
```

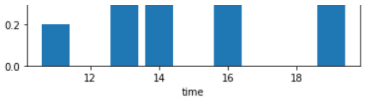


matplot bar graph

```
[3] import matplotlib.pyplot as plt

    plt.bar([11,14,19,13,16],[0.2,0.4,0.6,0.8,1.0])
    plt.title('Bar graph')
    plt.ylabel('value')
    plt.xlabel('time')
    plt.show()
```





matplot pie plot

```
[4] import matplotlib.pyplot as plt

    languages =["C","C++","java","python","ruby","php"]

    usage = [10,20,40,60,20,30]

    plt.axis("equal")

    plt.pie(usage,labels=languages,shadow=True)

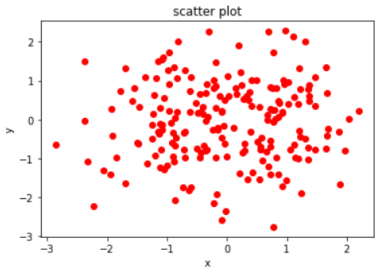
    plt.title("pie plot")
    plt.show()
```

matplot scatter plot

```
import matplotlib.pyplot as plt
import numpy as np
x=np.random.randn(200)
y=np.random.randn(200)

plt.scatter(x,y,c='r')
plt.xlabel('x')
plt.ylabel('y')
plt.title('scatter plot')

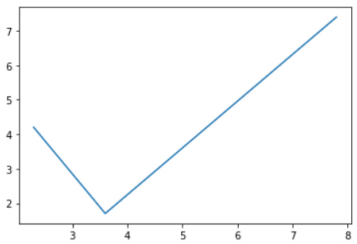
plt.show()
```



line plot

```
import matplotlib.pyplot as plt

plt.plot([2.3,3.6,7.8],[4.2,1.7,7.4])
plt.show()
```

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[ ]
```