Matplotlib

import matplotlib.pyplot as plt
% matplotlib inline.

x = [1, 2, 3, 4, 5, 6, 7]

y = [50, 51, 52, 48, 47, 49, 46]

plt. plot (x,y)

plt. plot (x,y, color = 'green'

→ plt.xlable ('Day')
plt.ylable ('Temperature')
plt. title ('weather')

, linewith= 5)
, linestyle = 'dashdot')
dotted

format strings - 2

plt.plot (x.y, 'g+')

$\downarrow$ green

$\longrightarrow$ '+' marker.

'g+--'

plt.plot (x.y. colon-green, alpha=0.2)

①

Axen lablen, legend . Grid - 3

~~plt.~~ day = [1, 2, 3, 4, 5, 6, 7]

maxb_t = [50, 51, 52, 48, 47, 49, 46]

min-t = [43, 42, 40, 44, 33. 35, 37]

Avg-t = [44, 48, 48, 46, 40, 42, 41]

$$x \qquad y$$

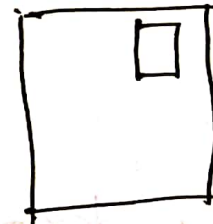plt.plot (dayn, max_t)

plt.plot (dayn, min_t) } it represent all the line in one

plt.plot (dayn, Avg_t) } chart.

(day, max_t, label='max')

min_t, lable='Min') } set name.

Avg_t, lable='Avg')

plt.legend()

plt.legend (log='upper right') ← set location

(best)', shadow=True, fontsize='small'

plt.gnid ( )

Bar chart

```python
import matplotlib.pyplot as plt
import numpy as np

company = ['google', 'Amazon', 'MSft', 'FB']
revenue = [90, 136, 89, 27]
profit =
ypos = np.arange(len(company))
```



```python
ypos
array([0,1,2,3])     plt.xticks(ypos, company)
                     plt.ylable("revenue(bln))
plt.bar(ypos, revenue)
                     (plt.title("Tech company")
                     , lable = 'Revenue')          label
                     plt.bar(ypos, profit, lable = 'profit')
                     plt.legend()
```
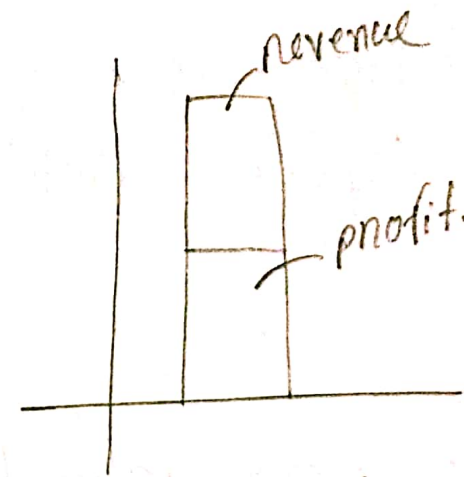
plt.ban (xpos - 0.2, Revenue, width = 0.4, lable = 'revenue')

plt.ban (xpos + 0.2, pnofit , width = 0.4, lable = 'pnofit')
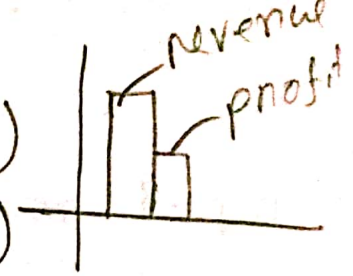
Histognamn. (need single dim annoy

1) How many patientn are nonmal?

2) How many of them are pne-diabetic?

3) How many ane

blood-sugan = [113, 85, 90, 150

plt.hist (blood-sugen)

> annay([3,3,1   ]) ← yaxis num

> annay([   ]) beann.

```python
plt.hist( blood-sugen , binn = 3 )
          , nwidth = 0.95 , colon = 'g' , histtype = 'step'
     relative width    ↑
                    maximum
                    value = 1

          binn = [80, 100, 125, 200]

blood-sugan-male = [                    ]        plt.xlable ('sugen)
blood-sugan-female = [                  ]        plt.ylable ( patients)
                                                 plt.title (       )
plt.hist ( [ blood-sugan-man, blood-sugen-femal ] , binn = [80, 100, ].
          nwidth = 0.95, colon = ['gruen', 'orange'].)
          , label = [man, woman],
```

pie chart

Anti clock
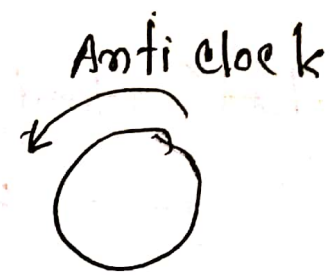
exp_valn = [1400, 600, 300, 410, 250]
exp_lablen = ['Home', 'food', 'bill', 'can', 'other']
plt.axis('equal')

increasing size.

plt.pie (exp_valuen, lablen = exp_labeln)
, radiun = 2)
, autopct = %.02 %.f%.%)
, shadow = True
, explod = [0, 0, 0.2, 0, 0]
, startangle = 180

plt.shows()