Matplotlib bir;

verilerimizden harika görünen grafikler oluşturmamıza olanak tanıyan python için çizim kitaplığı, bu yüzden bu kitapta çok sık kullanılıyor

Python programlama dilinde veri görselleştirmesi için kullanılan bir kütüphanedir.

```
from matplotlib import pyplot as plt
ages_x=[25,26,27,28,29,30,31,32,33,34,35]

dev_y=[38496,42000,46752,49320,53200,56000,62316,64928,67317,68748,73752]

plt.plot(ages_x,dev_y)

py_dev_y=[54372,48876,53850,57287,63016,659998,70003,71496,75370,83640]

plt.plot(ages_x,py_dev_y)


plt.xlabel('Ages')
plt.ylabel('Median Salary (USD)')
plt.title('Median Salary (USD) by Age')

plt.show()
```


```
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ages_x=[25,26,27,28,29,30,31,32,33,34,35]

dev_y=[38496,42000,46752,49320,53200,56000,62316,64928,67317,68748,73752]

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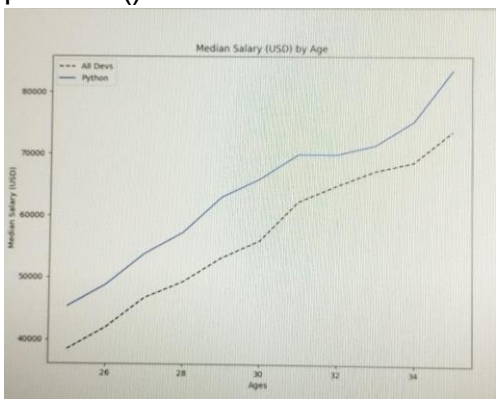
plt.plot(ages_x,py_dev_y)
```

```
plt.xlabel('Ages')
plt.ylabel('Median Salary (USD)')
plt.title('Median Salary (USD) by Age')
plt.legend()
plt.show()
```

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from matplotlib import pyplot as plt
ages_x=[25,26,27,28,29,30,31,32,33,34,35]

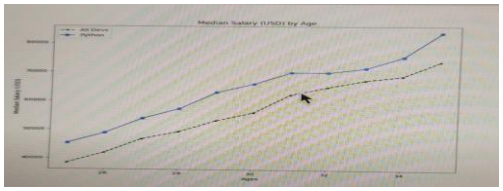
dev_y=[38496,42000,46752,49320,53200,56000,62316,64928,67317,68748,73752]

plt.plot(ages_x,dev_y,color='k',linestyle='--',marker='.',label='All Devs')

py_dev_y=[54372,48876,53850,57287,63016,659998,70003,71496,75370,83640]

plt.plot(ages_x,py_dev_y,color='b',label='Python')


plt.xlabel('Ages')
plt.ylabel('Median Salary (USD)')
plt.title('Median Salary (USD) by Age')
plt.legend()
plt.show()
```



```
from matplotlib import pyplot as plt

plt.style.use('fivethirdyeight')

ages_x=[25,26,27,28,29,30,31,32,33,34,35]

py_dev_y=[45372,48876,53850,57287,63016,65998,70003,70000,71496,75370,8364
0]

js_dev_y=[37810,43515,46823,49293,53437,56373,62375,66674,68745,68746,7458
3]
```

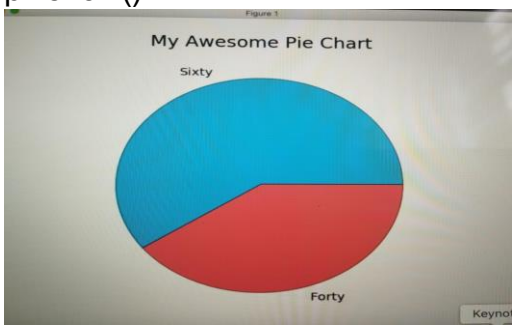
```
js_dev_y = [37810, 43515, 46823, 49293, 53437,
56373, 62375, 66674, 68745, 68746, 74583]
plt.bar(x_indexes + width, js_dev_y, width=width,
color="#e5ae38", label="JavaScript")
plt.legend ()

plt.title("Median Salary (USD) by Age")
plt.xlabel(“Ages")
```


```
from matplotlib import pyplot as plt
plt.style.use("fivethirtyeight")
slices = [120, 80]
labels = ['Sixty', 'Forty']
```

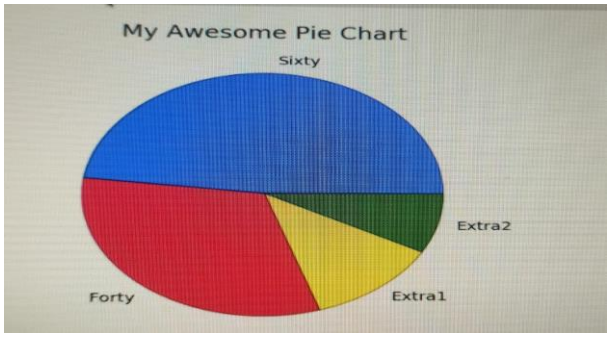
```
plt.pie(slices, labels-labels, wedgeprops={'edgecolor': 'black'})
plt.title("My Awesome Pie Chart")

plt.tight_layout()
plt.show()
```




```
from matplotlib import pyplot as put
plt.style.use("fivethirtyeight")
slices = [120, 80, 30, 20]
labels = ['Sixty', 'Forty', 'Extral' 'Extra2']
colors = ['blue', 'red', 'yellow',green '']
plt.pie(slices, labels-labels,colors=colors, wedgeprops={'edgecolor': 'black'})
plt.title("My Awesome Pie Chart")

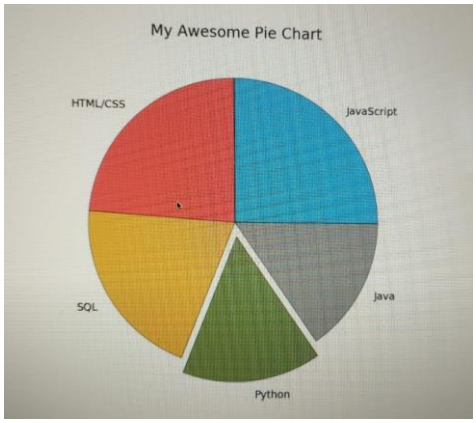
plt.tight_layout()
plt.show()
```



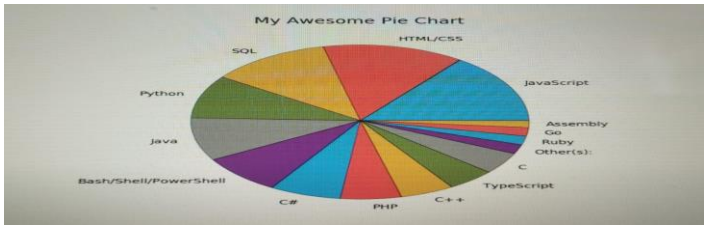
```
from matplotlib import pyplot as plt
plt.style.use("fivethirtyeight")
slices = [59219, 55466, 47544, 36443, 35917, 31991, 27097,
23030, 20524, 18523, 18017, 7920, 7331, 7201, 5833]
labels = ['JavaScript', 'HTML/CSS', 'SQL', 'Python', 'Java', 'Bash/Shell/PowerShell',
'C#', 'PHP', 'C++', 'TypeScript', 'C', 'Other(s):', 'Ruby', 'Go', 'Assembly ‘]


plt.pie(slices, labels=labels,
wedgeprops={'edgecolor': 'black'})

plt.title ("My Awesome Pie Chart")
plt.tight_layout()
plt.show()
```

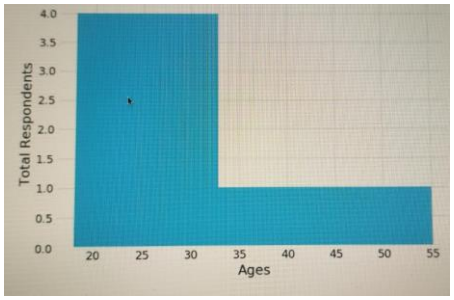



```
from matplotlib import pyplot as plt
plt.style.use("fivethirtyeight")
slices = [59219, 55466, 47544, 36443, 35917]
labels = ['JavaScript', 'HTML/CSS', 'SQL', 'Python', 'Java']
explode - [0, 0, 0, 0.1, 0]
plt.pie(slices, labels=labels, explode=explode,
wedgeprops={'edgecolor': 'black'})
plt.title ("My Awesome Pie Chart")
plt.tight_layout()
plt.show()
```

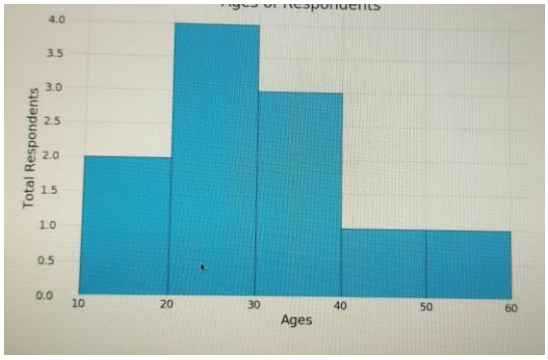


```
import pandas as pd
from matplotlib import pyplot as plt
plt.style.use('fivethirtyeight')
ages = [18, 19, 21, 25, 26, 26, 30, 32, 38, 45, 55]

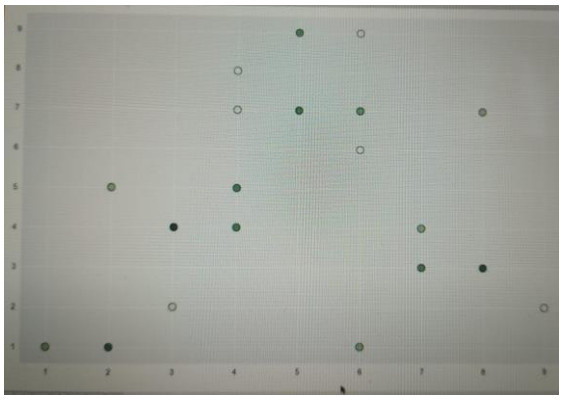
plt.hist(ages, bins=5)
```



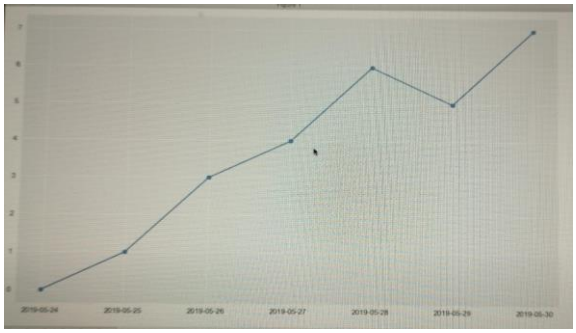

```
import pandas as pd
from matplotlib import pyplot as plt
plt.style.use('fivethirtyeight')
ages = [18, 19, 21, 25, 26, 26, 30, 32, 38, 45, 55]
bins = [10, 20, 30, 40, 50, 60]
plt.hist(ages, bins-bins, edgecolor='black')
```




```
import pandas as pd
from matplotlib import pyplot as plt
plt.style.use('seaborn')
x = [5, 7, 8, 5, 6, 7, 9, 2, 3, 4, 4, 4, 2, 6, 3, 6, 8, 6, 4, 1]
y [7, 4, 3, 9, 1, 3, 2, 5, 2, 4, 8, 7, 1, 6, 4, 9, 7, 7, 5, 1]
colors = [7, 5, 9, 7, 5, 7, 2, 5, 3, 19 > 2, 8, 1, 9, 2, 5, 6, 7, 5]
plt.scatter(x, y, s=100, c-colors, cmap='Greens',
edgecolor='black', linewidth=1, alpha=0.75)
```



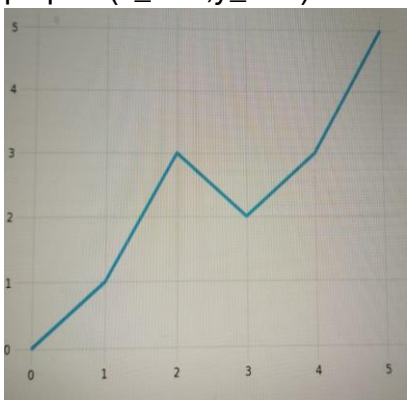
```
import pandas as pd
from datetime import datetime, timedelta
from matplotlib import pyplot as plt
from matplotlib import dates as mpl_dates
I
plt.style.use('seaborn')
dates = [
datetime (2019, 5, 24),
datetime (2019, 5, 25),
datetime (2019, 5, 26),
datetime (2019, 5, 27),
datetime (2019, 5, 28),
datetime (2019, 5, 29),
datetime (2019, 5, 30)
]
y = [0, 1, 3, 4, 6, 5, 7]
Alt.plot_date(dates,y,linestyle='solid')
```



```
Import random
from itertools import count
Import pandas as pd
Import matplotlib.pyplot as put

Alt.style.use('fivethirdyeight')
x_vals=[0,1,2,3,4,5]
y_vals=[0,1,2,3,4,5]

plt.plot (x_vals,y_vals)
```



1. plot(x, y): Çizgi grafiği oluşturur.
2. scatter(x, y): Nokta grafiği oluşturur.
3. bar(x, y): Çubuk grafik oluşturur.

4. xlabel('X Ekseni Etiketi') ve ylabel('Y Ekseni Etiketi'): Eksen etiketlerini belirler.
5. title('Grafik Başlığı'): Grafik başlığını belirler.
6. legend(): Grafikteki çizgilerin açıklamalarını gösterir.
7. subplot(row, col, index): Alt grafikler oluşturur.
8. fig, ax = plt.subplots(): Alt grafik objeleri döndürerek detaylı kontrol sağlar.
9. color='color_name': Grafik öğelerinin rengini belirler.
10. linestyle='-': Çizgi stilini belirler.
11. marker='o': Nokta grafiği için marker'ı belirler.

12. plt.xlim(min_value, max_value): X ekseni sınırlarını belirler.
13. plt.ylim(min_value, max_value): Y ekseni sınırlarını belirler.

14. plt.show(): Grafiği gösterir.