In [97]:
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
```

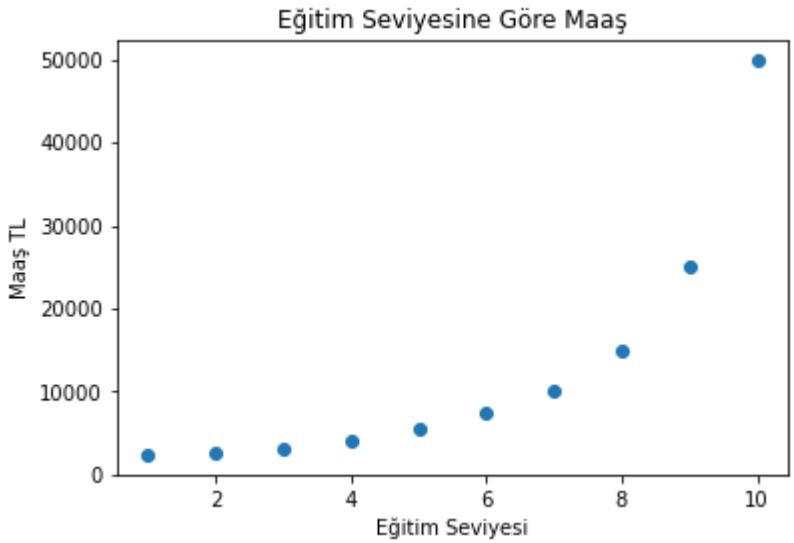
In [98]:
```
data = pd.read_csv("maaslar.csv")
data
```

Out[98]:

	unvan	Egitim Seviyesi	maas
0	Cayci	1	2250
1	Sekreter	2	2500
2	Uzman Yardimcisi	3	3000
3	Uzman	4	4000
4	Proje Yoneticisi	5	5500
5	Sef	6	7500
6	Mudur	7	10000
7	Direktor	8	15000
8	C-level	9	25000
9	CEO	10	50000

In [99]:
```
X = data["Egitim Seviyesi"].values.reshape(-1,1)
Y = data["maas"].values.reshape(-1,1)
```

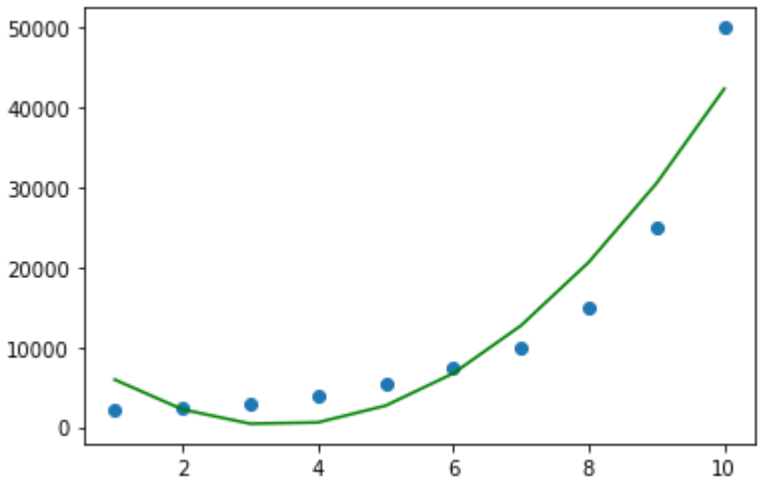
In [100…
```
plt.scatter(X,Y)
plt.title("Eğitim Seviyesine Göre Maaş")
plt.xlabel("Eğitim Seviyesi")
plt.ylabel("Maaş TL")
plt.show()
```



In [101…
```
from sklearn.preprocessing import PolynomialFeatures

poly_interp2 = PolynomialFeatures(degree=2)    # 2.derece
x_poly = poly_interp2.fit_transform(X)
```

In [102…

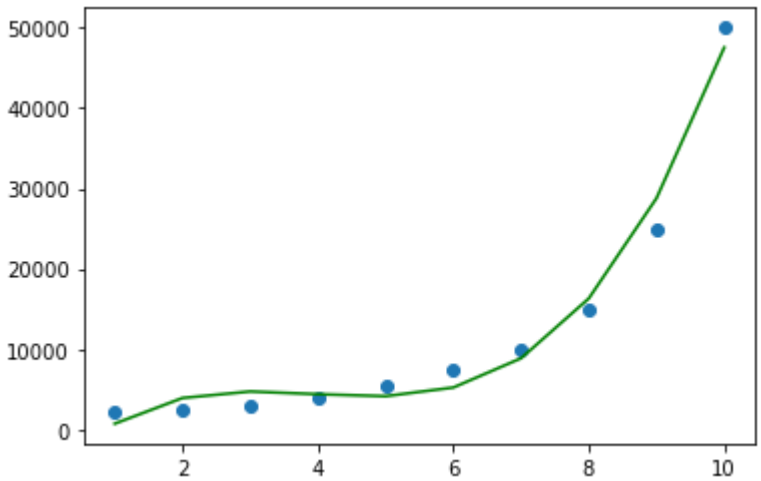
```
from sklearn.linear_model import LinearRegression

linear = LinearRegression()
linear.fit(x_poly,Y)
tahmin = linear.predict(x_poly)

plt.scatter(X,Y)
plt.plot(X,tahmin,color="green")
plt.show()

sayı = np.array([[9.5]]).reshape(-1,1)
linear.predict(poly_interp2.fit_transform(sayı))
```



Out[102… array([[36180.58712121]])

In [103…

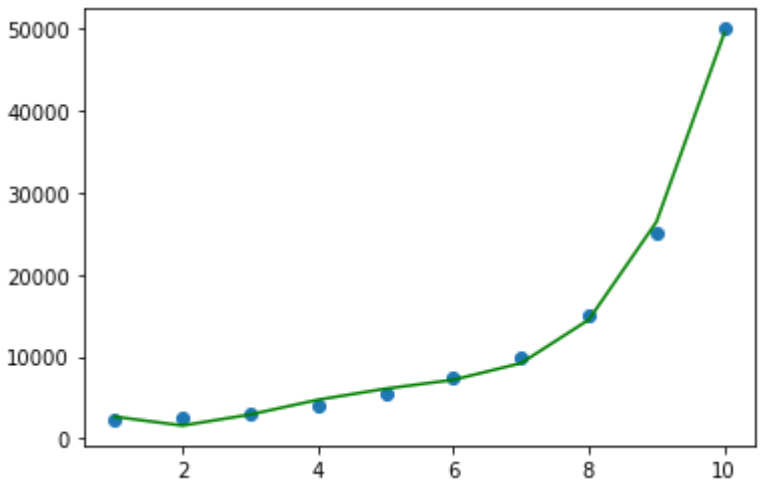
```
from sklearn.preprocessing import PolynomialFeatures

poly_interp3 = PolynomialFeatures(degree=3)   # 3.derece
x_poly = poly_interp3.fit_transform(X)

from sklearn.linear_model import LinearRegression

linear = LinearRegression()
linear.fit(x_poly,Y)
tahmin = linear.predict(x_poly)

plt.scatter(X,Y)
plt.plot(X,tahmin,color="green")
plt.show()

sayı = np.array([[9.5]]).reshape(-1,1)
linear.predict(poly_interp3.fit_transform(sayı))
```



Out[103… array([[37292.99970862]])

In [104…

```
from sklearn.preprocessing import PolynomialFeatures

poly_interp4 = PolynomialFeatures(degree=4)   # 4.derece
x_poly = poly_interp4.fit_transform(X)

from sklearn.linear_model import LinearRegression

linear = LinearRegression()
linear.fit(x_poly,Y)
tahmin = linear.predict(x_poly)

plt.scatter(X,Y)
plt.plot(X,tahmin,color="green")
plt.show()

sayı = np.array([[9.5]]).reshape(-1,1)
linear.predict(poly_interp4.fit_transform(sayı))
```



Out[104…

```
array([[36236.50112907]])
```

In [ ]: