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# Implement polynomial regression on given dataset

import numpy as np

import matplotlib.pyplot as plt

import pandas as pd


# Importing the dataset

datas = pd.read_csv('D:\data.csv')

print(datas)

X = datas.iloc[:, 1:2].values

y = datas.iloc[:, 2].values

from sklearn.linear_model import LinearRegression

lin = LinearRegression()


lin.fit(X, y)

from sklearn.preprocessing import PolynomialFeatures


poly = PolynomialFeatures(degree = 4)

X_poly = poly.fit_transform(X)

plt.scatter(X, y, color = 'blue')


plt.plot(X, lin.predict(X), color = 'red')

#plt.title('Linear Regression')

#plt.xlabel('Temperature')

#plt.ylabel('Pressure')


plt.show()
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poly.fit(X_poly, y)

lin2 = LinearRegression()

lin2.fit(X_poly, y)

plt.scatter(X, y, color = 'blue')


plt.plot(X, lin2.predict(poly.fit_transform(X)), color = 'red')

#plt.title('Polynomial Regression')

#plt.xlabel('Temperature')

#plt.ylabel('Pressure')


plt.show()

pred = 110.0

predarray = np.array([[pred]])

print(lin.predict(predarray))

pred2 = 110.0

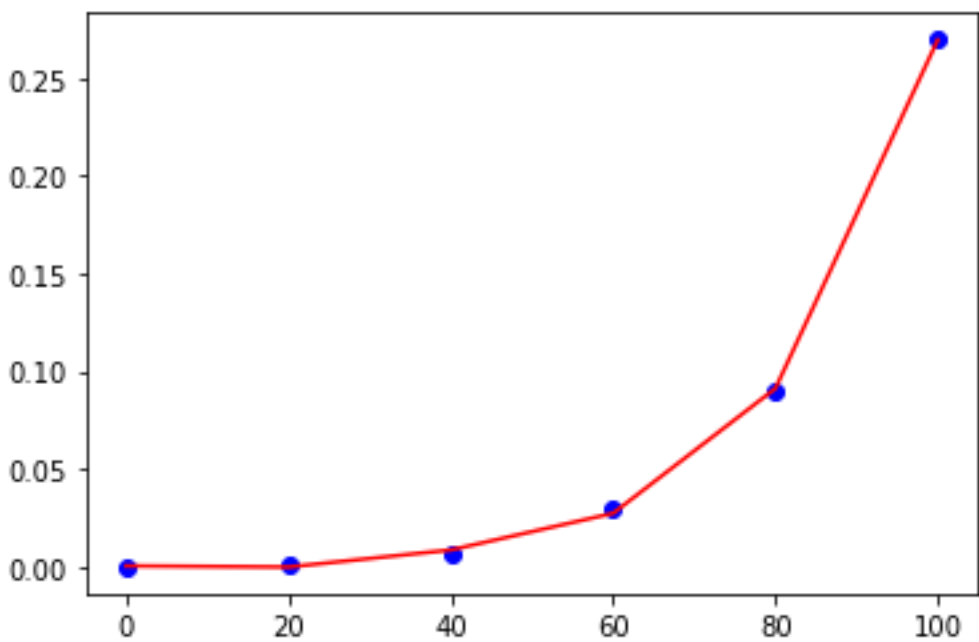
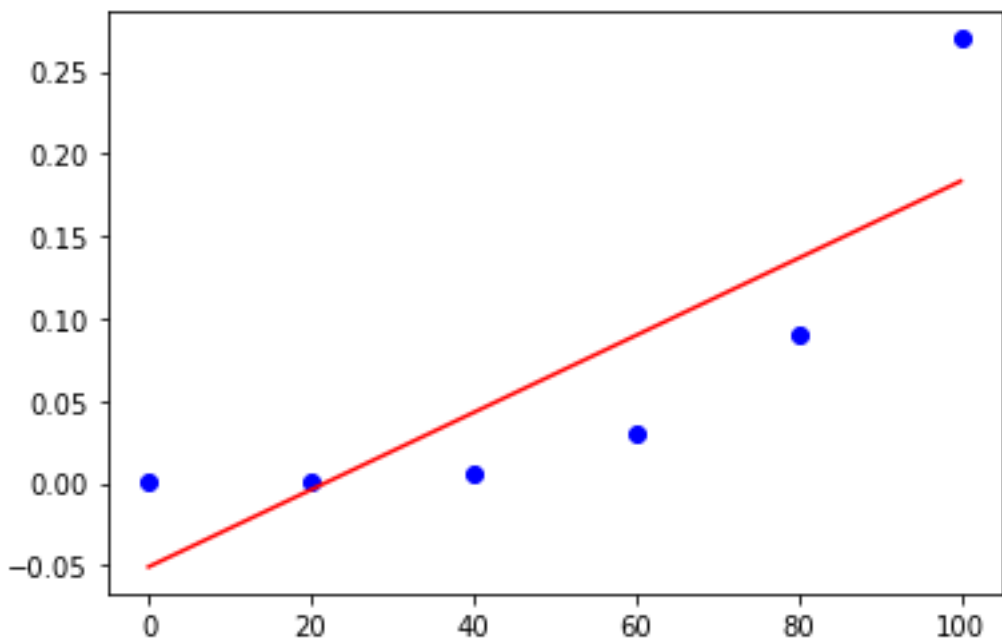
pred2array = np.array([[pred2]])

print(lin2.predict(poly.fit_transform(pred2array)))

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Output

sno	Temperature	Pressure
0	1	0 0.0002
1	2	20 0.0012
2	3	40 0.0060
3	4	60 0.0300
4	5	80 0.0900
5	6	100 0.2700



[0.20675333]

[0.43295877]