

```

import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
from sklearn.linear_model import LinearRegression
from sklearn.preprocessing import PolynomialFeatures

# Load dataset
dataset = pd.read_csv(r"C:\Users\admin\Downloads\emp_sal.csv")

X = dataset.iloc[:, 1:2].values
Y = dataset.iloc[:, 2].values

# Linear Regression
lin_reg = LinearRegression()
lin_reg.fit(X, Y)

# Plot Linear Regression
plt.scatter(X, Y, color='red')
plt.plot(X, lin_reg.predict(X), color='blue')
plt.title('Linear Regression graph')
plt.xlabel('Position level')
plt.ylabel('Salary')
plt.show()

# Polynomial Regression
poly_reg = PolynomialFeatures(degree=4) # You can try degree=2 or 3 also
X_poly = poly_reg.fit_transform(X)

lin_reg_2 = LinearRegression()
lin_reg_2.fit(X_poly, Y)

# Plot Polynomial Regression
plt.scatter(X, Y, color='red')
plt.plot(X, lin_reg_2.predict(poly_reg.fit_transform(X)), color='blue')
plt.title('Truth or Bluff (Polynomial Regression)')
plt.xlabel('Position level') # Fixed: was plt.Xlabel
plt.ylabel('Salary') # Fixed: was plt.Ylabel
plt.show()

# Predictions
lin_model_pred = lin_reg.predict([[6.5]])
print("Linear Model Prediction:", lin_model_pred)

poly_model_pred = lin_reg_2.predict(poly_reg.fit_transform([[6.5]]))
print("Polynomial Model Prediction:", poly_model_pred)

from sklearn.svm import SVR
svr_model=SVR()
svr_model.fit(X,Y)

svr_model_pred=svr_model.predict([[6.5]])
print(svr_model_pred)

```