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In [ ]: # Importing the Essential Libraries
import numpy as np
import matplotlib.pyplot as plt
import pandas as pd
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In [ ]: # Importing the Dataset
df = pd.read_csv("Position_Salaries.csv")
df.head()
```

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Out[ ]:
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	Position	Level	Salary
0	Business Analyst	1	45000
1	Junior Consultant	2	50000
2	Senior Consultant	3	60000
3	Manager	4	80000
4	Country Manager	5	110000

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In [ ]: # Creating Feature Matrix and Dependent Variable Vector
X = df.iloc[:, 1:2].values
y = df.iloc[:, 2].values
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In [ ]: from sklearn.ensemble import RandomForestRegressor
model = RandomForestRegressor(n_estimators = 10, random_state = 0)
model.fit(X, y)
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Out[ ]: RandomForestRegressor(n_estimators=10, random_state=0)
```

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In [ ]: from sklearn.model_selection import train_test_split
X_train, X_test, y_train, y_test = train_test_split(X, y, test_size = 0.2)
prediction = model.predict(X_test)
prediction
```

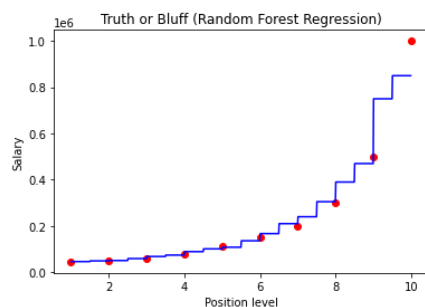
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Out[ ]: array([ 59000., 101000.])
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In [ ]: # Predicting a New Value
y_pred = model.predict([[6.5]])
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In [ ]: score = model.score(X_test, y_test)
print("The accuracy score is : ", score)
```

The accuracy score is : 0.9344

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In [ ]: # Visualizing the Training Set X_grid = np.arange(min(X), max(X), 0.01)
X_grid = np.arange(min(X), max(X), 0.01)
X_grid = X_grid.reshape((len(X_grid), 1))
plt.scatter(X, y, color = 'red')
plt.plot(X_grid, model.predict(X_grid), color = 'blue')
plt.title('Truth or Bluff (Random Forest Regression)')
plt.xlabel('Position level')
plt.ylabel('Salary')
plt.show()
```



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In [ ]:
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