In [1]:

```python
import pandas as pd
import numpy as np
```

In [2]:

```python
dataset = pd.read_csv(r"C:\Users\kotha\Downloads\student_scores.csv")
```

In [3]:

```python
dataset
```

Out[3]:

	Hours	Scores
0	2.5	21
1	5.1	47
2	3.2	27
3	8.5	75
4	3.5	30
5	1.5	20
6	9.2	88
7	5.5	60
8	8.3	81
9	2.7	25
10	7.7	85
11	5.9	62
12	4.5	41
13	3.3	42
14	1.1	17
15	8.9	95
16	2.5	30
17	1.9	24
18	6.1	67
19	7.4	69
20	2.7	30
21	4.8	54
22	3.8	35
23	6.9	76
24	7.8	86

In [4]:

```python
dataset.isnull().any()
```

Out[4]:

```
Hours      False
Scores     False
dtype: bool
```

In [5]:

```python
x = dataset.iloc[:,0:1].values
y = dataset.iloc[:,1:2].values
```

In [6]:

```python
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,random_state=0)
```

In [7]:

```python
x_train.shape
```

Out[7]:

```
(20, 1)
```

In [8]:

```python
y_train.shape
```

Out[8]:

```
(20, 1)
```

In [9]:

```python
from sklearn.linear_model import LinearRegression
regressor = LinearRegression()
regressor.fit(x_train,y_train)
```

Out[9]:

```
LinearRegression(copy_X=True, fit_intercept=True, n_jobs=None, normalize=Fal
se)
```

In [10]:

```python
y_pred = regressor.predict(x_test)
```

In [11]:

```
x_test
```

Out[11]:

```
array([[1.5],
       [3.2],
       [7.4],
       [2.5],
       [5.9]])
```

In [12]:

```
y_test
```

Out[12]:

```
array([[20],
       [27],
       [69],
       [30],
       [62]], dtype=int64)
```

In [13]:

```
y_pred
```

Out[13]:

```
array([[16.88414476],
       [33.73226078],
       [75.357018  ],
       [26.79480124],
       [60.49103328]])
```

In [14]:

```
from sklearn.metrics import r2_score
accuracy = r2_score(y_test,y_pred)
```

In [15]:

```
accuracy
```

Out[15]:

```
0.9454906892105356
```

In [19]:

```
yp = regressor.predict([[25]])
```
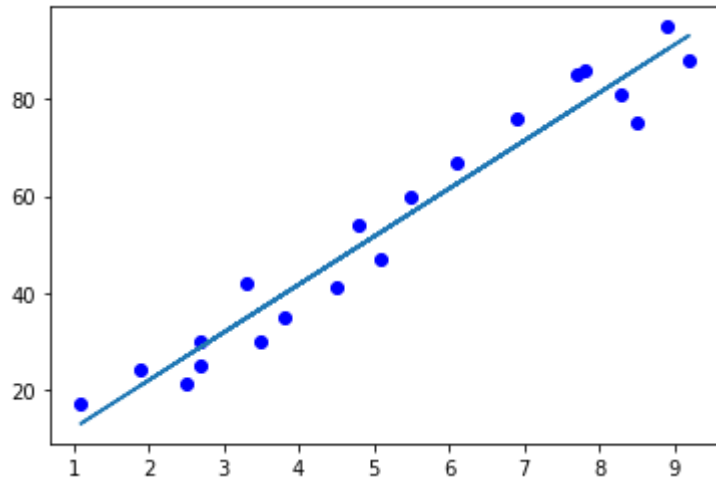
In [20]:

```
yp
```

Out[20]:

```
array([[249.78457206]])
```

In [17]:

```python
import matplotlib.pyplot as plt
plt.scatter(x_train,y_train,color = "blue")
plt.plot(x_train, regressor.predict(x_train))
```

Out[17]:

```
[<matplotlib.lines.Line2D at 0x136101a8948>]
```


In [ ]: