Import libararies

```python
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
```

In [161]:

Import dataset

In [162]:
```python
df=pd.read_csv("https://raw.githubusercontent.com/AdiPersonalWorks/Random/ma
```

In [163]:
```python
df=pd.DataFrame(df)
df.shape
df.head()
```

Out[163]:

	Hours	Scores
0	2.5	21
1	5.1	47
2	3.2	27
3	8.5	75
4	3.5	30

In [164]:
```python
X=df.iloc[:,0]
X=pd.DataFrame(X)
X.head()
```

Out[164]:

	Hours
0	2.5
1	5.1
2	3.2
3	8.5
4	3.5

```
In [165]:  1  y=df.iloc[:,1]
           2  y=pd.DataFrame(y)
           3  y.head()
```

Out[165]:

	Scores
0	21
1	47
2	27
3	75
4	30

```
In [166]:  1  plt.scatter(df['Hours'],df['Scores'])
           2  plt.title("Hours vs Scores")
           3  plt.xlabel("study hours")
           4  plt.ylabel("scores ")
           5  plt.show()
```
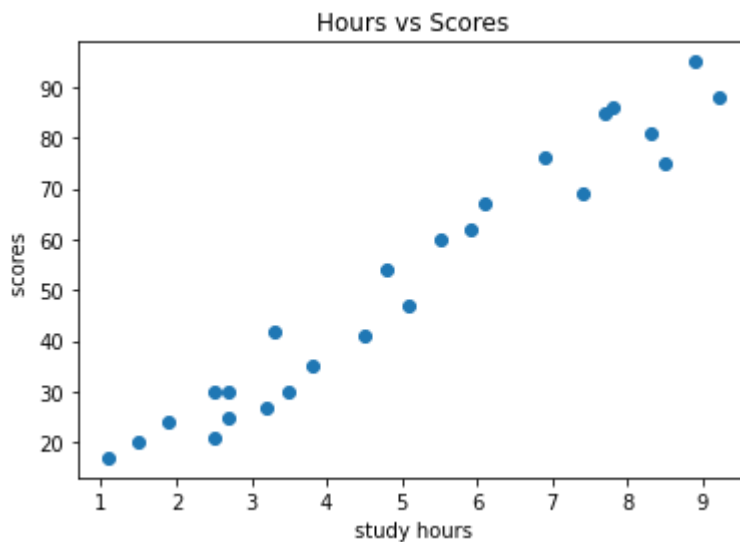


```
In [167]:  1  df.corr()
```

Out[167]:

	Hours	Scores
Hours	1.000000	0.976191
Scores	0.976191	1.000000

```
In [168]:  1  from sklearn.linear_model import LinearRegression
           2  lm=LinearRegression()
           3  lm.fit(X,y)
```

Out[168]: LinearRegression()

```
In [169]:  1  lm.coef_
```

Out[169]: array([[9.77580339]])

```
In [170]:  1  lm.intercept_
```

Out[170]: array([2.48367341])

```
In [171]:  1  lm.score(X,y)
```

Out[171]: 0.9529481969048356

```
In [172]:  1  line=lm.coef_*X+lm.intercept_
           2  y_pred=lm.predict(X)
```
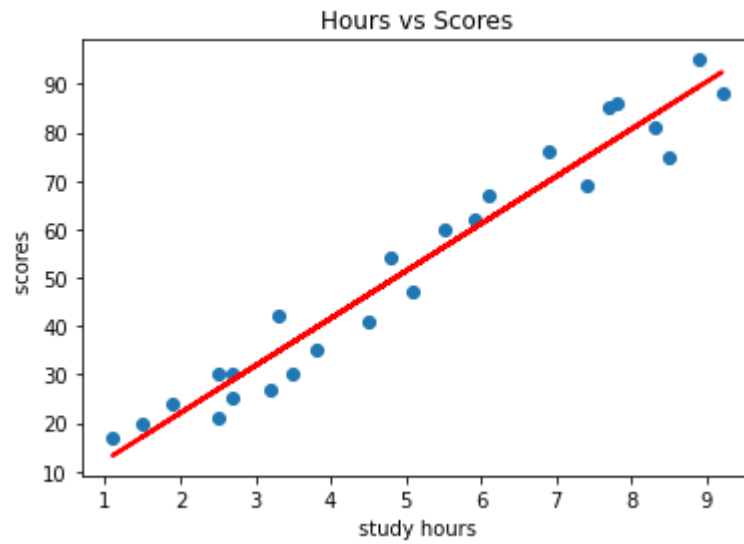
Prediction

```
In [173]:  1  new_value_hour=([9.25])#hrs/perday
           2  new_value_hour=pd.DataFrame(new_value_hour)
           3  #what will be the score of a student
           4  predicted_score=lm.predict(new_value_hour)
           5  print("predicted the score:",predicted_score)
```

predicted the score: [[92.90985477]]

Visualise the result

In [174]:

```python
1  plt.scatter(df['Hours'],df['Scores'])
2  plt.plot(X,y_pred,linewidth=2,color='red')
3  plt.title("Hours vs Scores")
4  plt.xlabel("study hours")
5  plt.ylabel("scores ")
6  plt.show()
```


In [ ]:

```
1
```

In [ ]:

```
1
```

In [ ]:

```
1
```