Ex.no:11 Linear regression

Aim:

To implement linear regression supervised machine learning algorithm .

Description:

1. Import stats for Linear regression throughscipy
2. Providea necessary dataset through Excel file
3. Finally we canobtainthelinear regression output through matplotlib as agraph

Program:

```
import matplotlib.pyplot as plt from scipy
import stats
import pandas

df=pandas.read_excel("Linear data (1).xlsx")

print ("\n Original Dataframe\n", df)
slope,intercept,r,p,std_err=stats.linregress(df["x"],df["y"]) def myfunc(x):
    return slope*x+intercept
mymodel=list(map(myfunc,df["x"]))
plt.scatter(df["x"],df["y"])
plt.plot(df["x"],mymodel)
plt.show()
```

Output :

Original Dataframe

X	y
5	81
6	82
7	83

8 84

9 85

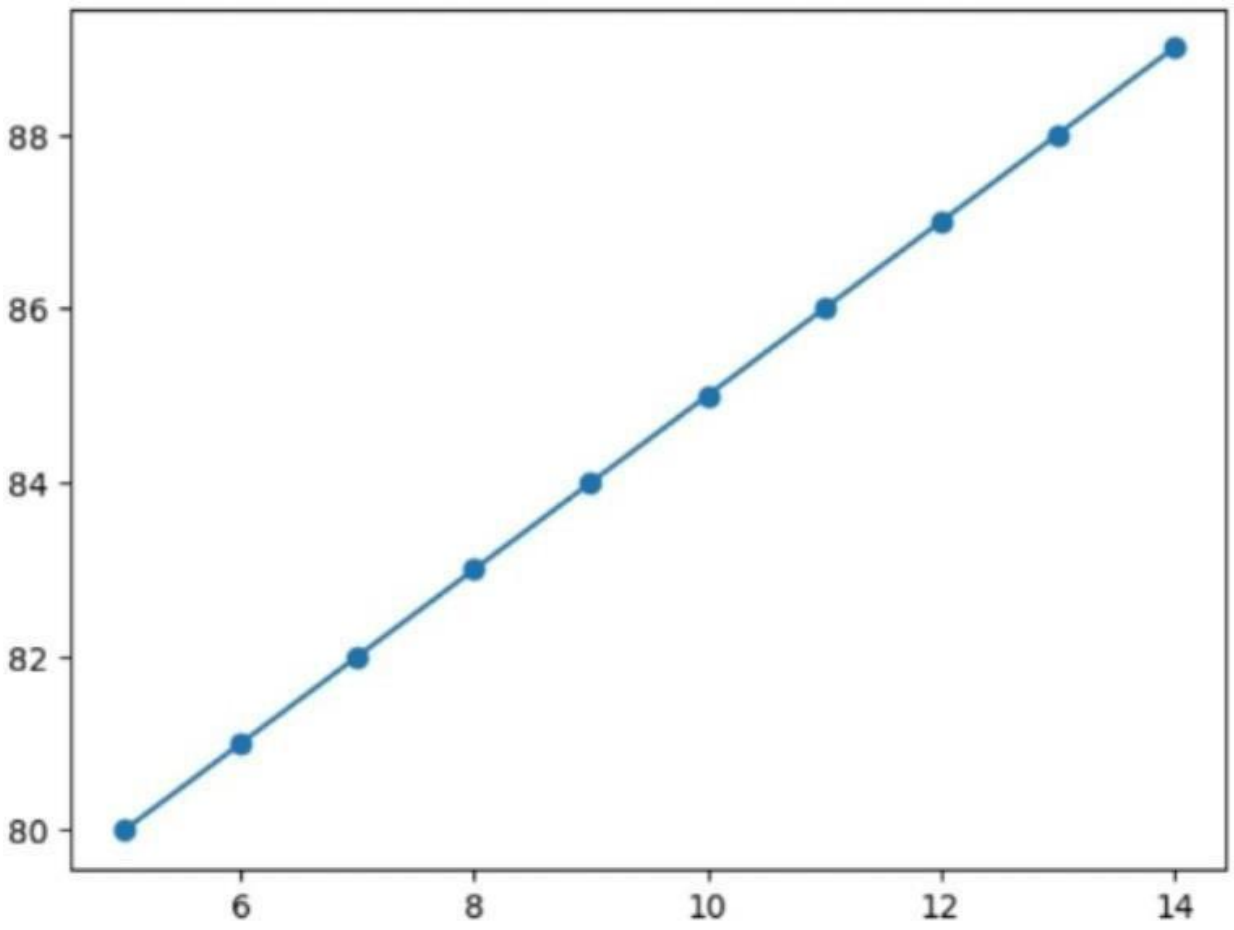
10 86

11 87

12 88

13 89

14 90



Result:

The programs were run successfully