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
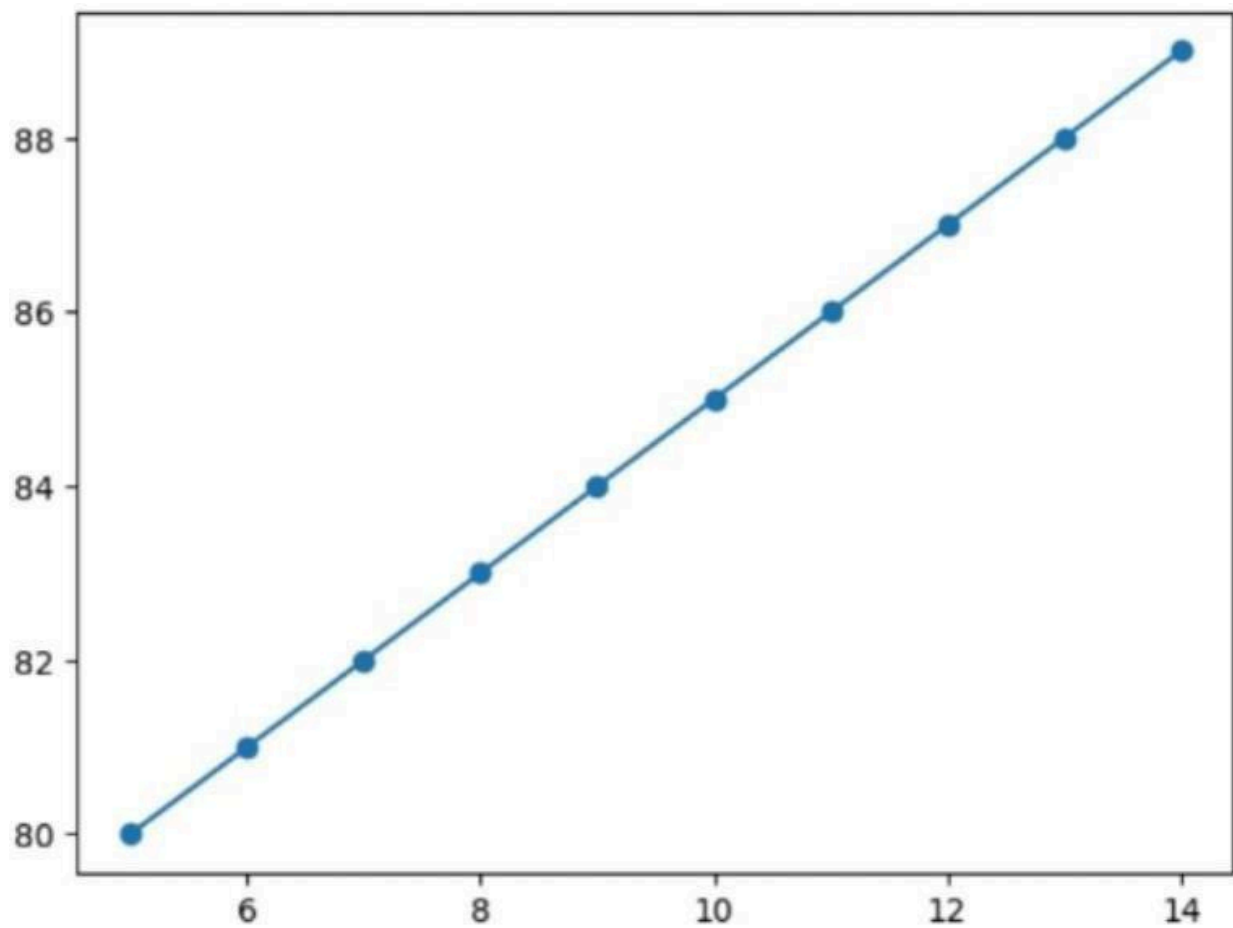
8 84

9 85

10 86

11 87

12 88

13 89

14 90

Result:

        The programs were run successfully