

Ex.no:11

Linearregression

Aim:

Toimplementlinearregressionsupervisedmachinelearningalgorithm.

Description:

1. ImportstatsforLinearregressionthroughscipy
2. ProvideanecessarydatasetthroughExcelfile
3. Finallywecanobtainthelinearregressionoutputthroughmatplotlibbasagraph

Program:

```
importmatplotlib.pyplotaspltfromscipy
import stats
importpandas

df=pandas.read_excel("Lineardata(1).xlsx")

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

Output:

OriginalDataframe

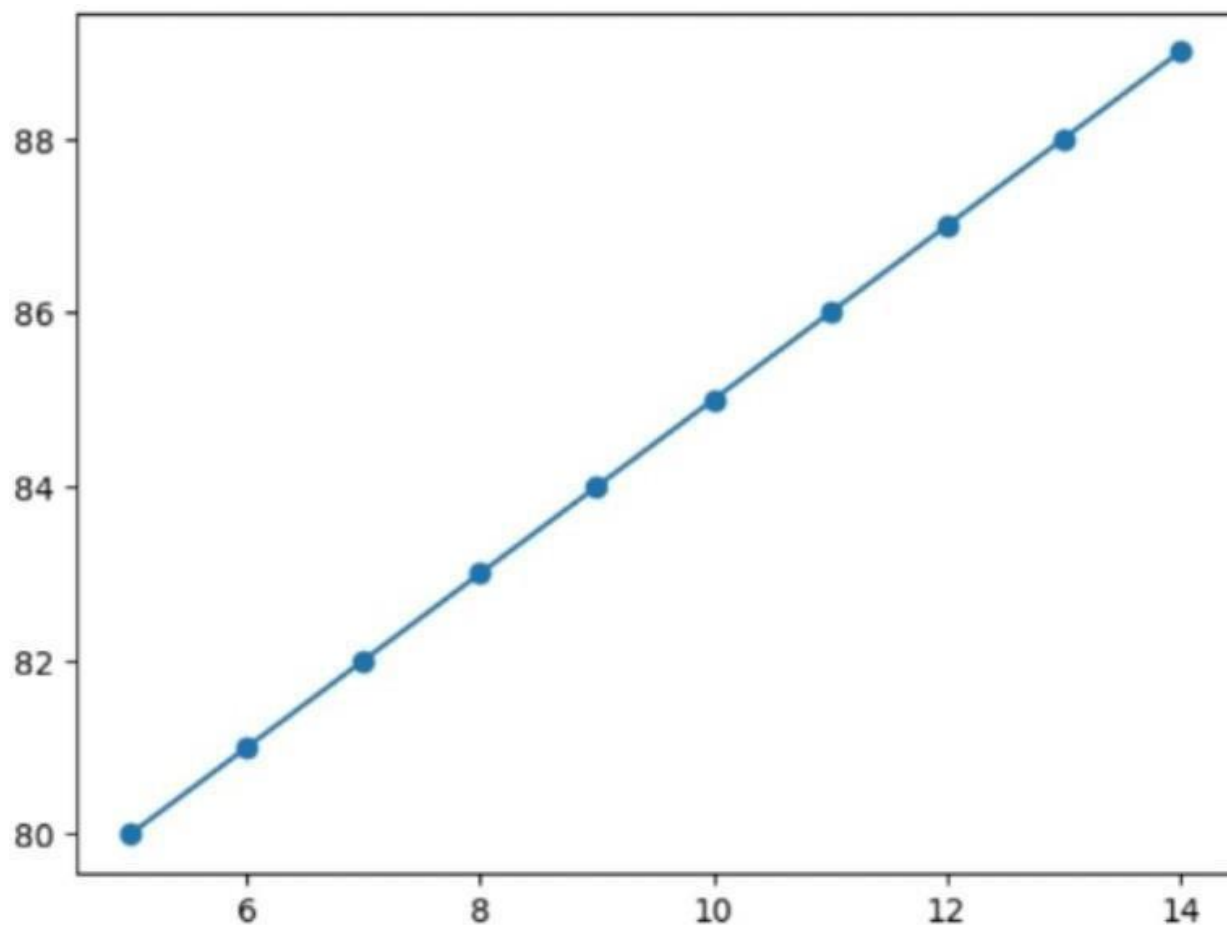
X y

5 81

6 82

7 83

884
985
1086
1187
1288
1389
1490

**Result:**

The programs were unsuccessful