

218125
Ex: 3

Model planning And Building

AIM:

To use the Advertising Budget and sales. csv dataset to do the model planning and building.

PROGRAM:

```
import pandas as pd
data = pd.read_csv("Advertising-Budget-and-sales.csv")
data.head()
data.isna().sum()
data.dtypes
x = data[['TV Ad Budget ($)', 'Radio Ad Budget',
          'newspaper Ad Budget ($)']]
y = data['sales ($)']
import seaborn as sns
sns.pairplot(x)

from sklearn.model_selection import train_test_split
x_train, x_test, y_train, y_test = train_test_split(x, y, test_size=0.3)

from sklearn.linear_model import LinearRegression
model_1 = LinearRegression()
model_1 = fit(x_train, y_train)
y_pred_1 = model_1.predict(x_test)
x_pred_1
```

Output :

①

Unnamed :	0	TV Ad Budget	Radio	NP	Sales
0	1	280.1	37.8	69.2	22.1
1	2	111.3	89.3	45.1	10.4
2	3	17.2	45.9	19.3	9.3
3	4	151.5	41.3	50.5	18.3
4	5	180.8	10.8	50.4	12.9

②

Unnamed : 0

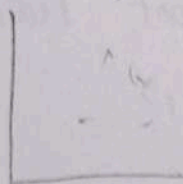
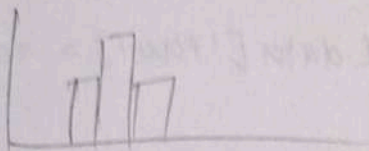
TV ad Budget (1) 0

Radio Ad Budget (1) 0

Newspaper Ad Budget (1) 0

Sales (1) 0

③



④

Linear Regression

Linear Regression (1)

Model comparison

