

Exp: No: 11

Implementing artificial neural networks for an application using python - Regression.

Aim:- To Implementing artificial neural networks for an application in regression using python.

Source Code:-

```
from sklearn.neural_network import  
MLP Regression.  
from sklearn.model_selection import  
train_test_split.  
from sklearn.datasets import make  
regression.  
import numpy as np  
import matplotlib.pyplot as plt  
import seaborn as sns.  
import mat  
% matplotlib inline  
x, y = make_regression(n_samples=1000,  
noise=0.05, n_features=100)  
x.shape, y.shape = (1000, 100), (1000, 1)  
x_train, x_test, y_train, y_test = train  
test_split(x, y, test_size=0.2,  
shuffle=True, random=42)  
elf = MLPRegressor(max_iter=1000)  
elf.fit(x_train, y_train)
```

O/P

R₂ score for test Data = 0.9686558466
21529

Result:-

The program was successfully executed