

Ex no: 11 Implementing artificial neural network for an application using Python - Regression.

Aim:

To implementing artificial neural networks for an application in regression using Python

Program:

```
from sklearn.neural_network import MLPRegressor
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
%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_state = 42)
clf = MLPRegressor (max_iter = 1000)
clf.fit (X_train, y_train)
```


output:

R² score for test Data = 0.968655842152

The Program was Successfully executed and
output is verified.