Ex: 11 Implementing Artificial Neural
Date: Network for an Application using Py4.
Aim: - Regression

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.pypcot as plt
import seaborn as sns
% matplotlib inline

%.y = make_regression (n_samples = 1000,
  noise = 0.05, n_features = 100)

%.shape .y.shape = ( (1000, 100); (1000) )
x_train, x_test, y_train, y_test = train_test_
split (x, y, test_size = 0.2, shuffle = True,
  random_state = 42)
clf = MLP Regressor (max_iter = 1000)
clf.fit (x_train, y_train)
```

O/P:

R2 score for training data = 1.00
R2 Score for test Data = 0.9686558 42152

Result:

The program was successfully executed and the OIP is verified.