

Ex. 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 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,))
x_train, x_test, y_train, y_test = train_test_split(
    x, y, test_size=0.2, shuffle=True,
    random_state=42)
mlr = MLPRegressor(max_iter=1000)
if fit(x_train, y_train)
```

O/P :-

R2 score for test data = 0.9686558421529



Result: -

The program was successfully executed & the  
op is verified.