

EX NO: 11

Implementing artificial neural network  
- regression.

AIM :-

To implementing artificial neural networks  
for an application in regression.

SOURCE CODE :-

```
from sklearn.neural_network import MLP
from sklearn.model_selection import train-  
test
```

```
import numpy as np.
```

```
import matplotlib.pyplot as plt.
```

```
import seaborn as sns.
```

```
% matplotlib as inline.
```

```
x, y = make_regression(n_samples=1000  
noise=0.05, n_features=100)
```

```
if x.shape[0] == y.shape[0]:
```

```
    x_train, x_test, y_train, y_test = train-  
test-split(x, y, test_size=0.2,  
            random_state=42, shuffle=True)
```

11:00  
ef = MLPRegression(max\_iter=1000)

ef.fit(x\_train, y\_train)

O/P

R<sub>2</sub> Source for test Data

= 0.9686558421529

RESULT:

The program is successfully executed  
and output is verified.