E Exno: Implementing artificial.
Date: 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 MLPRegression.
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=
                       n_features=100)
X.shape, y.shape = ((1000,100), (1000,))
X_train, X_test, y_train, y_test = train_test_spli
                (X, y, test_size=0.2, shuffle=True,
                 random_state=42)
clf = MLPRegressor(max_iter=1000)
clf.fit(X_train, y_train)
print(f"R2 Score for training Data = {clf.score
                train, y_train)
```

```
print(f"R2 Score for Test Data: {clf.score(x_test,
                                    y_test)}")
```

OUTPUT

R_2 Score for Test Data = 0.9686558466621529

RESULT:

Thus the programme is successfully executed and Output is verified.