Exp no :

Date :

# 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 MLP
                                    regressor
from sklearn.model_selection import
                        train_test_split
from sklearn.datasets import make_regressio
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)
mlp =MLPRegressor(max_iter=1000)
mlp.fit(X_train, y_train)
```

```
R2 Score for Training Data = 0.9[illegible]9960757303987
R2 Score for Test Data = 0.9620311946670963
/usr/local/lib/python3.10/dist-packages/sklearn/neural_network/
  warnings.warn(
```

Result

The program was successfully executed and output is verified.