Exp No : 12
Date

Artificial Neural Network - Regression

AIM

→ to implement Artificial Neural network for an application using Python - Regression

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_sample=1000, noise=0.05, n_feature=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)
clf = MLPRegressor(max_iter=1000)
clf.fit(X_train, y_train)
```

```
print("R2 score training = {clf.score(x_train,
                                y_train)}")
print("R2 score for test data = {clf.score
                    (x_test, y_test)}")
```

Result

Thus the ANN for Application using Python - Regression is implemented successfully.