Exp no 10
Date

Implementation ANN for AN Application using Python - Regression

Aim

To implement 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)
clf = MLPRegressor(max_iter=1000)
clf.fit(X_train, y_train)

print(f"{clf.score(X_test, y_test)}")
```

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Output

0.9686558466621529

Result:

Thus the Regression program executed Successfully.