Implementing artificial neural networks for an application using python - classification

Ex: No: 10
Date:

Aim:

To implementing artifical neural networks for an application in classification using python.

Source code:

```
sklearn.model_selection import train_test_split
from sklearn.datasets import make_circles import
from sklearn.neural_network import MLP classifier

from numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
%. matplotlib inline
x-train, Y-train = make-circles (n-Samples =
                   700, noise = 0.05)
x-test, y-test = make-circles (n-Samples=
                 300, noise = 0.05)

sns-scatterplot (x-train [:,0],
```

```
x-train[:,1], hue = y-train)
plt.title("Train Data")
plt.show()
clf = MLPclassifier(max_iter=1000)
clf.fit(x_train, y_train)
y_pred = clf.predict(x_test)
fig, ax = plt.subplots(1,2)
sns.scatterplot(x_test[:,0]
x_test[:,1], hue = y_pred, ax=ax[0])
plt.show().
```

Result:

The program was successfully executed and the o/p is verified.

Implementing artificial neural networks for an application using python - Regression.