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Exp No. 10 Implementing Artificial Neural Network for an application using Python

Aim:

To implementing artificial neural network for an application using python.

Code:

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

```
from numpy as np
import matplotlib as pyplot
import random as rnd.
%matplotlib inline
x_train, y_train = make_circles (n_samples = 100, noise = 0.05
x_test, y_test = make_circles (n_samples = 300, noise = 0.05)
fig.scatterplot (x_train[:,0]
x_train [:,1], hue = y_train)
plt.title ('Train Data')
plt.show()
ff = MLP classifier (max_iter = 100)
ff.fit (x_train, y_train)
```

```
y_pred = lr.predict(x_test)
fig, ax = plt.subplots(1, 2)
ax[0].scatter(x_test[:, 0], x_test[:, 1], c=y_pred, cmap='viridis')
plt.show()
```

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Result:

The program is successfully executed.