Python 3.6.4 | Anaconda custom (64-bit) | (default, Jan 16 2018, 10:22:32) [MSC v.1900 64 bit

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IPython 6.1.0 -- An enhanced Interactive Python.

'D:/MachineLearning/Machine Learning A-Z/Part 8 - Deep Learning/Section 39 -In [1]: Artificial Neural Networks (ANN)/Artificial Neural Networks/ANN College/BankChurn.py' ='D:/MachineLearning/Machine Learning A-Z/Part 8 - Deep Learning/Section 39 - Artificial Neural Networks (ANN)/Artificial Neural Networks/ANN College'

0% (2 of 500) | | Elapsed Time: 0:00:00 ETA: 0:00:31

Network Initialized.....

Number of Training samples : 8000 Number of Features: 11

Available Activations :

1.relu 2.tanh 3.sigmoid

Training the Deep Network Initiated.....

Network Dimension: [11, 6, 8, 1]

['tanh', 'sigmoid'] Activations :

Alpha: 0.05 Batch Size : 25 Epochs: 500

100% (500 of 500) | ################# | Elapsed Time: 0:00:32 Time: 0:00:32 Elapsed time:

32.434831776314944

Cost V/S Epochs 0.70 0.65 0.60 0.55 0.50 0.45 0.40 0.35 0.30

200

Epochs

300

N/A% (0 of 500) | | Elapsed Time: 0:00:00 ETA: --:--[11, 6, 8, 1]

500

400

Train Accuracy Score: 86.8375 % Test Accuracy Score: 86.65 %

100

```
Alpha:
                      0.05
Network Dimension:
                      [11, 6, 8, 1]
Activations :
                      ['tanh', 'sigmoid']
Batch Size :
                      25
Fold size :
                      10
100% (500 of 500) | ################# | Elapsed Time: 0:00:29 Time: 0:00:29
 0% (2 of 500) |
                                         | Elapsed Time: 0:00:00 ETA: 0:00:27
Fold 1 Accuracy Score: 86.25 %
100% (500 of 500) | ################# | Elapsed Time: 0:00:29 Time: 0:00:29
 0% (2 of 500) |
                                         | Elapsed Time: 0:00:00 ETA: 0:00:27
Fold 2 Accuracy Score: 85.875 %
100% (500 of 500) | ################# | Elapsed Time: 0:00:30 Time: 0:00:30
                                         | Elapsed Time: 0:00:00 ETA: 0:00:27
 0% (2 of 500) |
Fold 3 Accuracy Score: 87.5 %
100% (500 of 500) | ################ | Elapsed Time: 0:00:30 Time: 0:00:30
                                         | Elapsed Time: 0:00:00 ETA:
 0% (2 of 500) |
                                                                       0:00:27
Fold 4 Accuracy Score: 85.875 %
100% (500 of 500) | ################# | Elapsed Time: 0:00:29 Time: 0:00:29
 0% (2 of 500) |
                                         | Elapsed Time: 0:00:00 ETA: 0:00:27
Fold 5 Accuracy Score: 87.125 %
100% (500 of 500) | ################# | Elapsed Time: 0:00:29 Time: 0:00:29
 0% (2 of 500) |
                                         | Elapsed Time: 0:00:00 ETA:
                                                                      0:00:27
Fold 6 Accuracy Score: 86.25 %
100% (500 of 500) | ################# | Elapsed Time: 0:00:29 Time: 0:00:29
 0% (2 of 500) |
                                         | Elapsed Time: 0:00:00 ETA: 0:00:27
Fold 7 Accuracy Score: 85.5 %
100% (500 of 500) | ################# | Elapsed Time: 0:00:29 Time: 0:00:29
 0% (2 of 500) |
                                         | Elapsed Time: 0:00:00 ETA:
                                                                       0:00:31
Fold 8 Accuracy Score: 84.875 %
100% (500 of 500) | ################# | Elapsed Time: 0:00:30 Time: 0:00:30
 0% (2 of 500) |
                                         | Elapsed Time: 0:00:00 ETA: 0:00:27
Fold 9 Accuracy Score: 84.75 %
100% (500 of 500) | ################# | Elapsed Time: 0:00:29 Time: 0:00:29
Fold 10 Accuracy Score: 86.375 %
Accuracy of the model from K-FOLD CROSS VALIDATION: 86.0375
In [2]:
```

K-Fold Cross Validation initiated.....