

**Activity 6.1 :** A data set “Churn\_Modelling” is given to you. We are given some financial details of the customers. The main column is the last one i.e. exited. Which shows whether a customer has exited the system or not. We have to train the ANN based on this data to make a prediction for this column i.e. “exited”

**Perform the following steps for ANN implementation:**

**1. Import the required Libraries**

**Part 1 Data Pre-processing**

**2. Import the data set for this problem**

**3. Segregate the independent and dependent columns in X and Y**

[Hint: You can discard the columns which have no impact on the predicted column i.e. exited]

**Encoding categorical data**

**[Do the following steps for encoding the categorical data]**

**4. Label Encoding the "Gender" column**

**5. One Hot Encoding the "Geography" column**

**6. Splitting the dataset into the Training set and Test set**

[Hint: Keep 80-20 ratio for split.]

**Feature Scaling**

**7. Feature Scaling:** It is mandatory step in case of Neural networks.

[Hint: Search Standard Scalar in Python and apply the same on X\_train and X\_test]

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**Following steps will be performed in the next session**

**Part 2 - Building the ANN**

**Part 3 - Training the ANN**

**Part 4 - Making the predictions and evaluating the model**