

# IMPORTING THE REQUIRED LIBRARIES

**TEAM ID : PNT2022TMID28890**

**PROJECT NAME : A Novel Method for Handwritten Digit Recognition System**

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Lets first import the libraries

## Importing Necessary Libraries

```
import numpy #used for numerical analysis
import tensorflow #open source used for both ML and DL for computation
from tensorflow.keras.datasets import mnist #mnist dataset
from tensorflow.keras.models import Sequential #it is a plain stack of layers
from tensorflow.keras import layers #A layer consists of a tensor-in tensor-out computation function
from tensorflow.keras.layers import Dense, Flatten #Dense-Dense layer is the regular deeply connected n.
#Flatten-used for flattening the input or change the dimension
from tensorflow.keras.layers import Conv2D #Convolutional layer
from keras.optimizers import Adam #optimizer
from keras.utils import np_utils #used for one-hot encoding
```

Importing the required libraries which are required for the model to run. The dataset for this model is imported from the Keras module.

The dataset contains ten classes: Digits from 0-9. Each digit is taken as a class