

## ▼ Importing The Required Model Building Libraries

```
from google.colab import drive
drive.mount('/content/drive')
```

```
from tensorflow.keras.preprocessing.image import ImageDataGenerator
```

```
from keras.models import Sequential, load_model
from keras.layers.core import Dense, Dropout, Activation
from keras.utils import np_utils
```

```
# Training Datagen
train_datagen = ImageDataGenerator(rescale=1/255, zoom_range=0.2, horizontal_flip=True, vertical_flip=True)
# Testing Datagen
test_datagen = ImageDataGenerator(rescale=1/255)
```

```
# Training Dataset
x_train=train_datagen.flow_from_directory('/content/drive/Dataset/training_set', target_size=(256, 256))
# Testing Dataset
x_test=test_datagen.flow_from_directory('/content/drive/Dataset/test_set', target_size=(64, 64))
```

```
Found 15750 images belonging to 9 classes.
Found 2250 images belonging to 9 classes.
```

```
print("Len x-train : ", len(x_train))
print("Len x-test : ", len(x_test))
```

```
Len x-train : 18
Len x-test : 3
```

```
# The Class Indices in Training Dataset
x_train.class_indices
```

```
{'A': 0, 'B': 1, 'C': 2, 'D': 3, 'E': 4, 'F': 5, 'G': 6, 'H': 7, 'I': 8}
```

```
# Importing Libraries
from tensorflow.keras.models import Sequential
from tensorflow.keras.layers import Convolution2D, MaxPooling2D, Flatten, Dense
```