PROJECT DEVELOPMENT PHASE

SPRINT- 1

Team ID	PNT2022TMID03100
Project Name	Project - Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation

IMAGE PROCESSING

Import the ImageDataGenerator Library

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

Configure the ImageDataGenerator Class

Apply the ImageDataGenerator Functionality to the Training and Testing Datasets

```
[ ] train_datagen = ImageDataGenerator(rescale = 1./255, horizontal_flip = True, vertical_flip = True, zoom_range = 0.2)

    test_datagen = ImageDataGenerator(rescale = 1./255)
```

```
[ ] x_train = train_datagen.flow_from_directory(r"/content/data/train", target_size = (64,64), batch_size = 100, class_mode = "categorical")

    x_test = test_datagen.flow_from_directory(r"/content/data/test", target_size = (64,64), batch_size = 100, class_mode = "categorical")
```

```
Found 15341 images belonging to 6 classes.
Found 6825 images belonging to 6 classes.
```

```
[ ] x_train.class_indices
```

```
{'Left Bundle Branch Block': 0,
 'Normal': 1,
 'Premature Atrial Contraction': 2,
 'Premature Ventricular Contractions': 3,
 'Right Bundle Branch Block': 4,
 'Ventricular Fibrillation': 5}
```