

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

```
In [1]: from tensorflow.keras.preprocessing.image import ImageDataGenerator
```

```
In [2]: train_datagen = ImageDataGenerator(rescale = 1./255, horizontal_flip = True, vertical_flip = True, zoom_range = 0.2)
```

```
In [3]: test_datagen = ImageDataGenerator(rescale = 1./255)
```

```
In [4]: x_train = train_datagen.flow_from_directory("C:/Users/Admin/Desktop/data/train", target_size = (64,64), batch_size = 100, class_mode = "categorical")
```

Found 15341 images belonging to 6 classes.

```
In [5]: x_test = test_datagen.flow_from_directory("C:/Users/Admin/Desktop/data/test", target_size = (64,64), batch_size = 100, class_mode = "categorical")
```

Found 6825 images belonging to 6 classes.

```
In [6]: x_train.class_indices
```

```
Out[6]: {'Left Bundle Branch Block': 0,
         'Normal': 1,
         'Premature Atrial Contraction': 2,
         'Premature Ventricular Contractions': 3,
         'Right Bundle Branch Block': 4,
         'Ventricular Fibrillation': 5}
```