**PROJECT DEVELOPMENT PHASE**
**SPRINT-II**

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|---|---|
| Date | 10 November 2022 |
| TeamID | PNT2022TMID17365 |
| Project Name | Intelligent vehicle damage assessment & cost estimator for insurance companies. |
| MaximumMarks | 4 Marks |

# Image Pre-processing

## #Import The ImageDataGenerator Library:

```
# Import required lib
from tensorflow.keras.preprocessing.image import ImageDataGenerator
```

## #Configure ImageDataGenerator Class :

```
#Creating augmentation on training variable
train_datagen = ImageDataGenerator(rescale=1./255,
                                   zoom_range=0.2,
                                   horizontal_flip=True)

# Creating augmentation on testing variable test_datagen
= ImageDataGenerator(rescale=1./255)
```

## #Apply ImageDataGenerator Functionality To Trainset And Testset :

**For Body Damage:**

```
# Passing training data to train variable for body xtrain =
 train_datagen.flow_from_directory('/content/damage vehicle/body/training',
                                   target_size=(224,224),
                                   class_mode='categorical',
                                   batch_size=10)

# Passing testing data to test variable for body
xtest = test_datagen.flow_from_directory('/content/damage vehicle/body/validation',
                                   target_size=(224,224),
                                   class_mode='categorical',
                                   batch_size=10)
```

**For Level Damage:**

```
# Passing training data to train variable for body
x_train = train_datagen.flow_from_directory('/content/damage vehicle/level/training',
                                   target_size=(224,224),
                                   class_mode='categorical',
                                   batch_size=10)
```

```
# Passing training data to test variable for body
x_test = test_datagen.flow_from_directory('/content/damage vehicle/level/validation',
                                          target_size=(224,224),
                                          class_mode='categorical',
                                          batch_size=10)
```