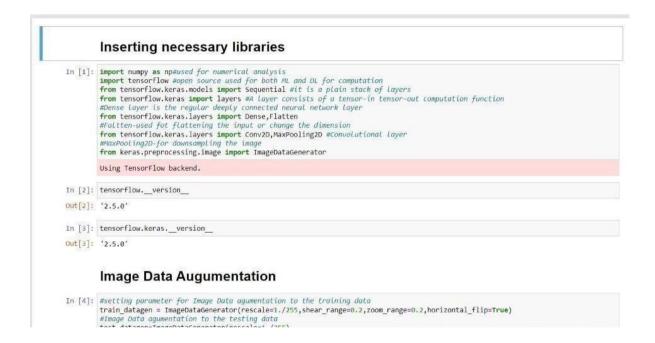
PROJECT DEVELOPMENT PHASE

SPRINT-III Natural Disaster Intensity Analysis and Classification using Artificial Intelligence PNT2022TMID34563

DETECTION AND ANALYSIS OF DATA:

After Testing and Training the model, data which given in dataset are analysed and visualised effectively to detect the Disaster Type. Using webcam, it can capture image or video stream of Disaster, to detect and analyse the type of Disaster.



MODEL BUILDING:

Building a Model with web application named "FLASK", model building process consist several steps like,

- · Import the model building Libraries
- Initializing the model
- Adding CNN Layers

- Adding Hidden Layer
- Adding Output Layer
- · Configure the Learning Process
- Training and testing the model

all the above processes are done and saved in a model.

```
In [1]: import numpy as np#used for numerical analysis import tensorflow #open source used for both ML and DL for computation from tensorflow #open source used for both ML and DL for computation from tensorflow keras. import layers all appears all appears and supers in the regular deeply connected neural network layer from tensorflow keras. layers import Deense, Flatter #form tensorflow keras. layers import Deense, Flatter #form tensorflow keras. layers import convaD, MaxPooling2D #convolutional Layer #maxPooling2D for downsampting the image from keras. preprocessing, image import ImageOataGenerator

Using Tensorflow backend.

In [2]: tensorflow._version__
Out[2]: '2.5.0'

In [3]: tensorflow.keras._version__
Out[3]: '2.5.0'

Image Data Augumentation

In [4]: #setting parameter for Image Data agumentation to the training data train_datagen = ImageOataGenerator(rescale=1./255, shear_range=0.2, horizontal_flip=True) #Image Data agumentation to the testing data test_datagen_manageta_Engagent_(pss).
```