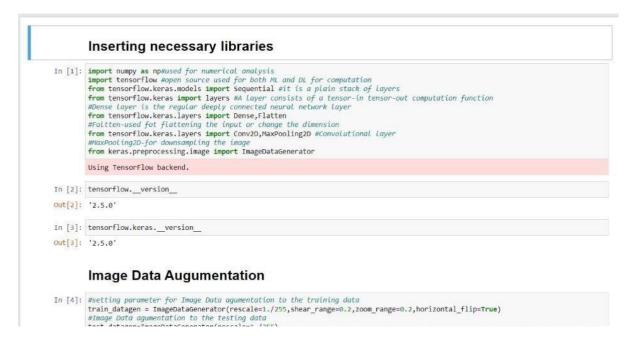
PROJECT DEVELOPMENT PHASE

SPRINT-III

Date	8 November 2022
Team ID	PNT2022TMID27138
Project Name	Natural Disaster Intensity Analysis and
	Classification using Artificial
	Intelligence

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 keras import layers and layers and plan from tensorflow keras import layers and layer consists of a tensor-in tensor-out computation function #Dense layer is the regular deeply connected neural network layer from tensorflow keras.layers import Lonvap. Flatten #Faltten-used fot flattening the input or change the dimension from tensorflow keras.layers import Convap.NaxPooling2D #convolutional layer #MaxPooling2D-for downsampling the image from keras.preprocessing.image import ImageDataGenerator

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 = ImageDataGenerator(rescale=1./255, shear_range=0.2, zoom_range=0.2, horizontal_flip=True) ##mageData agumentation to the testing data test_datagen=ImageDataGenerator(rescale=1./255)
```