PROJECT DEVELOPMENT PHASE

SPRINT- I

| Date	25 November 2022
Team ID	PNT2022TMID47258
Project Name	Natural Disaster Intensity Analysis and Classification using Artificial Intelligence

OBJECTIVES:

- To analyse the Intensity of the Disaster occurring.
- To classify Disaster correctly.
- To increase the accuracy of the model by using deep CNN.

FLOW:

The flow of analysis is as follows:

- Data collection
- Data preprocessing
- Model building **STRUCTURE:**

- The dataset folder is created with Trainset and Testset.
- The Flask contains the templates folder and app.py script, disaster.h5 file.
- The templates folder contains home.html, intro.html and upload.html.
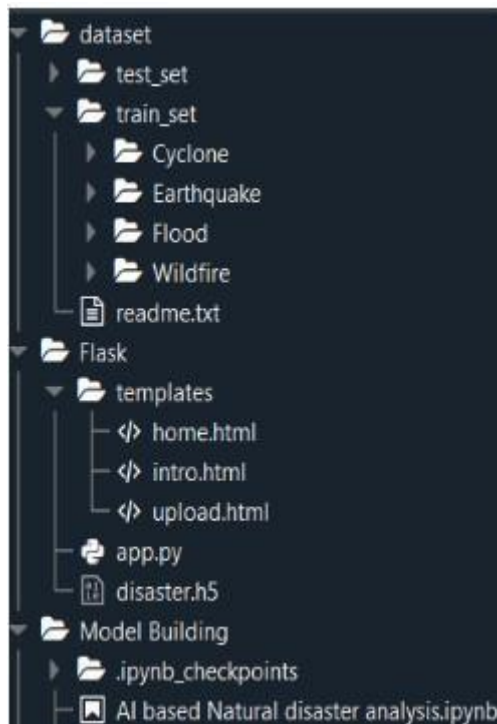
PREREQUISITES:

The required packages for python programming is installed through the Anaconda prompt by the following commands:

- Pip install numpy
- Pip install pandas
- Pip install scikit-learn
- Pip install opencv-contrib-python
- Pip install tensorflow == 2.3.0
- Pip install keras == 2.4.0
- Pip install flask

PRIOR KNOWLEDGE:

The knowledge about the following contents are learnt:

- CNN
- Supervised and Unsupervised ML
- Flask
- Clustering and Regression

COLLECTION OF DATASET:

The images of Disaster-prone areas are collected and organised into the subdirectories. The images of four types of Natural Disasters, Cyclone, Earthquake, Flood, Wildfire are collected and saved with the respective names. For more accuracy, Dataset with more images is selected and trained.

CREATION OF HOME PAGE:
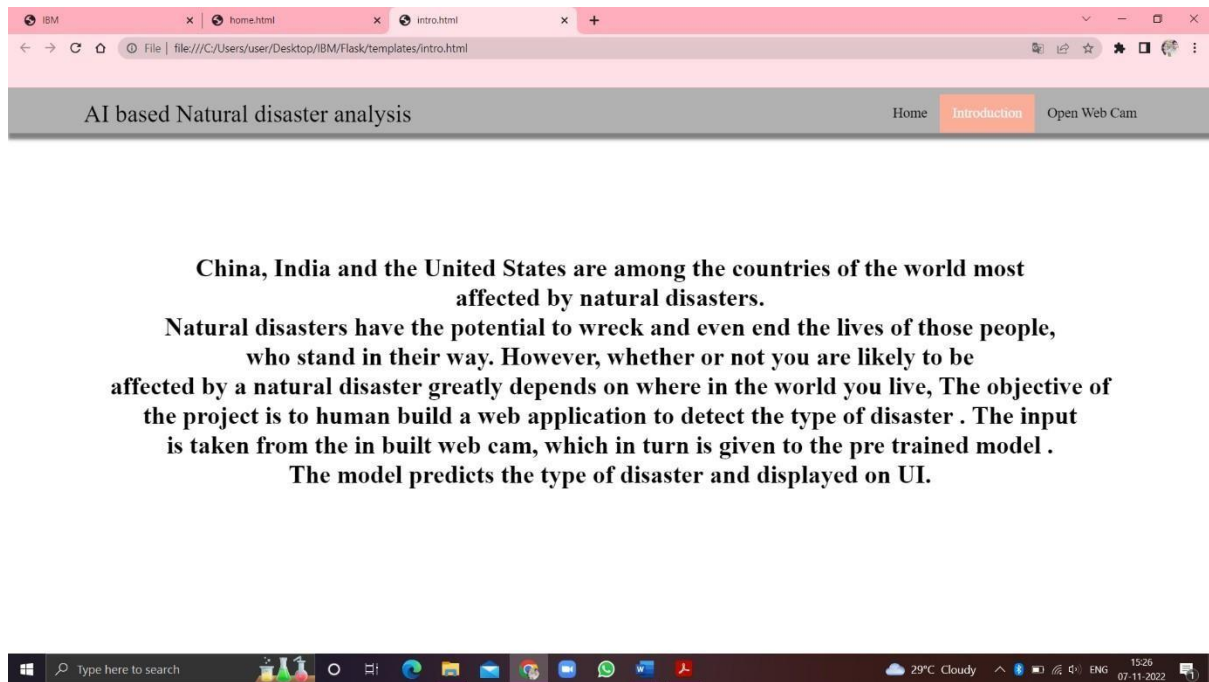
Using HTML and CSS, the Home page is created. From the Home page the User can be able to know the basics of the frequently occurring Disasters. The home.html page is given below:
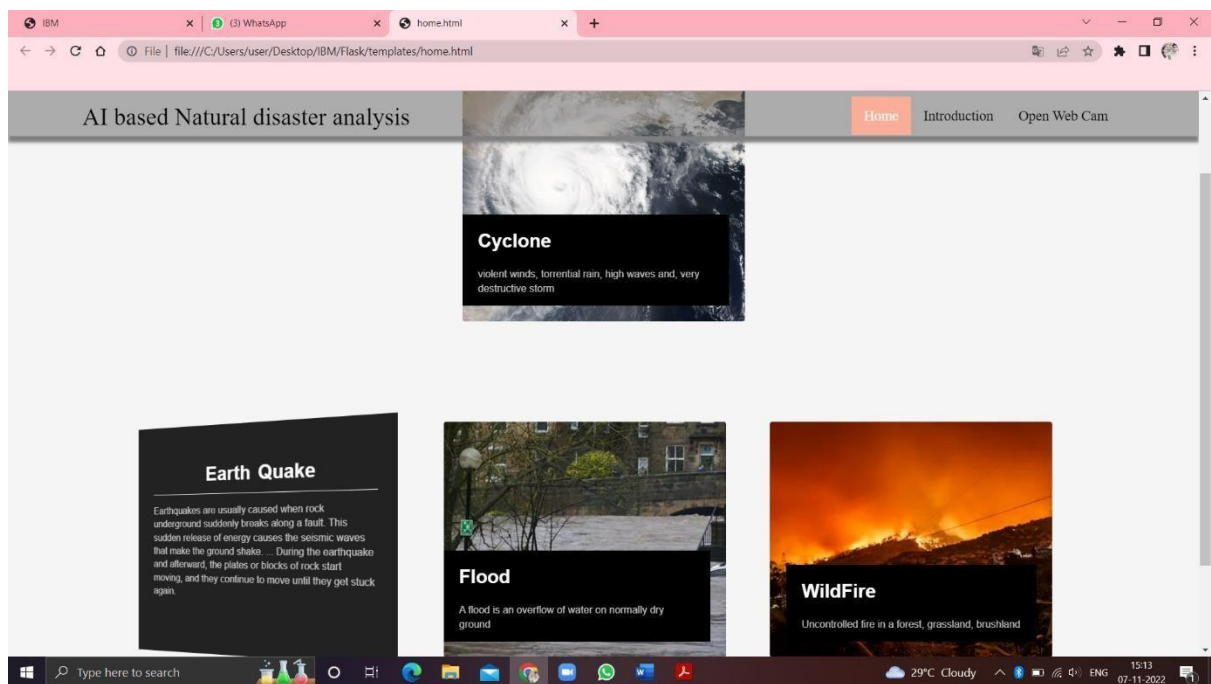
CREATION OF INTRO PAGE:

Using HTML and CSS, the intro page is created. From the intro page the user can be able to know about the project's introduction or abstract. The intro.html page is given below:

AI based Natural disaster analysis   Home   Introduction   Open Web Cam

China, India and the United States are among the countries of the world most
affected by natural disasters.
Natural disasters have the potential to wreck and even end the lives of those people,
who stand in their way. However, whether or not you are likely to be
affected by a natural disaster greatly depends on where in the world you live, The objective of
the project is to human build a web application to detect the type of disaster . The input
is taken from the in built web cam, which in turn is given to the pre trained model .
The model predicts the type of disaster and displayed on UI.

OPENING WEB CAM:

Using HTML and CSS, the upload.html page is created. Through this page
User can be able to open the web cam to know about current disaster. The
upload.html page is given below: