PROJECT DEVELOPMENT

SPRINT-4

Date	18 November 2022
Team ID	PNT2022TMID40422
Project Name	Natural Disaster Intensity Analysis and Classification using Artificial Intelligence
Team Members	Mohamed Asarudeen Shaik Abdullah Shamir ahmed Sudharsan Ameed Ibrahim

DETECTION AND ANALYSIS OF DATA:

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

```
print(x_train.class_indices)#checking the number of classes
```

```
print(x_test.class_indices)#checking the number of classes
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```
from collections import Counter as c
c(x_train .labels)
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Saving the Model

In [ ]:
```
# Save the model
classifier.save('disaster.h5')
```

In [ ]:
```
model_json = classifier.to_json()
with open("model-bw.json", "w") as json_file:
    json_file.write(model_json)
```

CREATING app.py:

```
# import the necessary packages
from flask import Flask,render_template,request
# Flask-It is our framework which we are going to use to run/serve our application.
#request-for accessing file which was uploaded by the user on our application.
#import operator
import cv2 # opencv library
from tensorflow.keras.models import load_model#to load our trained model
import numpy as np
#import os
from werkzeug.utils import secure_filename
#from playsound import playsound
#from gtts import gTTS
'''
def playaudio(text):
    speech=gTTS(text)
    print(type(speech))
    speech.save("output1.mp3")
    playsound("output1.mp3")
    return
'''
app = Flask(__name__,template_folder="templates") # initializing a flask app
# Loading the model
model=load_model(r'C:\Users\user\Desktop\IBM\Flask\templates\disaster.h5')
print("Loaded model from disk")


app=Flask(__name__,template_folder="templates")
@app.route('/', methods=['GET'])
def index():
    return render_template('home.html')
@app.route('/home', methods=['GET'])
def home():
    return render_template('home.html')
@app.route('/intro', methods=['GET'])
def about():
    return render_template('intro.html')
@app.route('/upload', methods=['GET', 'POST'])
```