

#Importing

Libraries

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import re
import numpy as np
import os
from flask import Flask, app, request, render_template
from keras import models
from keras.models import load_model
from keras.preprocessing import image
from tensorflow.python.ops.gen_array_ops import concat
from keras.applications.inception_v3 import preprocess_input
import requests
from flask import Flask, request, render_template, redirect, url_for
from cloudant.client import Cloudant

#Create Database
client = Cloudant.iam('00cba18f-2150-4961-9102-f29b9aee35de-
bluemix','ht_ByiEjrGeaitIZJTC-ri5_80q-dxTNHLGho1mpt0d5', connect=True)
my_database = client.create_database('my_database')

#Loading the Model
model1 = load_model('Model/level.h5')
model2 = load_model('Model/body.h5')

app = Flask(__name__)

@app.route('/')
def index():
    return render_template('index.html')

@app.route('/index.html')
def home():
    return render_template('index.html')

@app.route('/register.html')
def register():
    return render_template('register.html')

@app.route('/afterreg', methods=['POST'])
def afterreg():
    x = [x for x in request.form.values()]
    print(x)
    data = {
        '_id': x[1],
        'name': x[0],
        'psw': x[2]
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    }
    print(data)

    query = {'_id': {'$eq': data['_id']}}

    docs = my_database.get_query_result(query)
    print(docs)

    print(len(docs.all()))

    if(len(docs.all())==0):
        url = my_database.create_document(data)
        response = request.get(url)
        return render_template('login.html', pred="Registration Successful,
Please login using your details")
    else:
        return render_template('register.html', pred="You are already a
member, Please login using your details")

@app.route('/login.html')
def login():
    return render_template('login.html')

@app.route('/afterlogin', methods=['POST'])
def afterlogin():
    user = request.form['_id']
    passw = request.form['psw']
    print(user,passw)

    query = {'_id': {'$eq': user}}

    docs = my_database.get_query_result(query)
    print(docs)

    print(len(docs.all()))

    if(len(docs.all())==0):
        return render_template('login.html', pred="The Username is not
found")
    else:
        if((user==docs[0][0]['_id'] and passw==docs[0][0]['psw'])):
            return redirect(url_for('prediction'))
        else:
            print('Invalid User')

@app.route('/logout.html')

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def logout():
    return render_template('logout.html')

@app.route('/prediction.html')
def prediction():
    return render_template('prediction.html')

@app.route('/result')
def res():
    if request.methods=="POST":
        f=request.files['image']
        basepath=os.path.dirname(__file__)
        filepath=os.path.join(basepath,'uploads',f.filename)
        f.save(filepath)

        img=image.load_img(filepath,target_size=(256,256))
        x=image.img_to_array(img)
        x=np.expand_dims(x,axis=0)

        img_data=preprocess_input(x)
        prediction1=np.argmax(model1.predict(img_data))
        prediction2=np.argmax(model2.predict(img_data))

        index1=['front','rear','side']
        index2=['minor','moderate','severe']

        result1 = index1[prediction1]
        result2 = index2[prediction2]
        if(result1 == "front" and result2 == "minor"):
            value = "3000 - 5000 INR"
        elif(result1 == "front" and result2 == "moderate"):
            value = "6000 - 8000 INR"
        elif(result1 == "front" and result2 == "severe"):
            value = "9000 - 11000 INR"
        elif(result1 == "rear" and result2 == "minor"):
            value = "4000 - 6000 INR"
        elif(result1 == "rear" and result2 == "moderate"):
            value = "7000 - 9000 INR"
        elif(result1 == "rear" and result2 == "severe"):
            value = "11000 - 13000 INR"
        elif(result1 == "side" and result2 == "minor"):
            value = "6000 - 8000 INR"
        elif(result1 == "side" and result2 == "moderate"):
            value = "9000 - 11000 INR"
        elif(result1 == "side" and result2 == "severe"):
            value = "12000 - 15000 INR"

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        else:
            value = "16000 - 50000 INR"

        return render_template('prediction.html',prediction=value)

if __name__=="__main__":
    app.run(debug = False,port = 8080)
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