

```
from cloudant.client import Cloudant
```

```
client = Cloudant.iam('6f4f5183-072e-4bd0-b33f-8c0562a8e227-bluemix',  
'IcNwIUOYQsMwH32_e2m3xg93E-Af0KVHeiAwVijUAWWC', connect=True)
```

```
my_database=client['my_database']
```

```
import numpy as np
```

```
import os
```

```
from flask import Flask, app,request,render_template,redirect,url_for,session
```

```
from tensorflow.keras import models
```

```
from tensorflow.keras.models import load_model
```

```
from tensorflow.keras.preprocessing import image
```

```
from tensorflow.python.ops.gen_array_ops import concat
```

```
from tensorflow.keras.applications.inception_v3 import preprocess_input
```

```
import requests
```

```
os.add_dll_directory
```

```
model1=load_model(r'D:\Usman\IBM Project\Model\body.h5')
```

```
model2=load_model(r'D:\Usman\IBM Project\Model\level.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]}
    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)
        return render_template("register.html",pred="Registration Successful, please login with your
details")
    else:
        return render_template("register.html",pred="You are already a member, please login using
your registered 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 or password is incorrect. Please login  
with correct details.")
```

```
else:
```

```
    if((user==docs[0][0]['_id']and passw==docs[0][0]['psw'])):
```

```
        return redirect(url_for('prediction'))
```

```
    else:
```

```
        return render_template("login.html",pred="The username is not found or the details you've  
entered is incorrect.")
```

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

```
def logout():
```

```
    return render_template("logout.html")
```

```
@app.route('/prediction.html')
```

```
def prediction():
```

```
    return render_template("prediction.html")
```

```
@app.route('/result',methods=["GET","POST"])
```

```
def result():
```

```
    if request.method=="POST":
```

```
        f=request.files['file']
```

```
        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]
print(result1)
print(result2)
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"
else:
    value="16000 - 50000 INR"

return render_template("result.html", prediction="The Estimated cost for the damage is:
"+value)

```

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