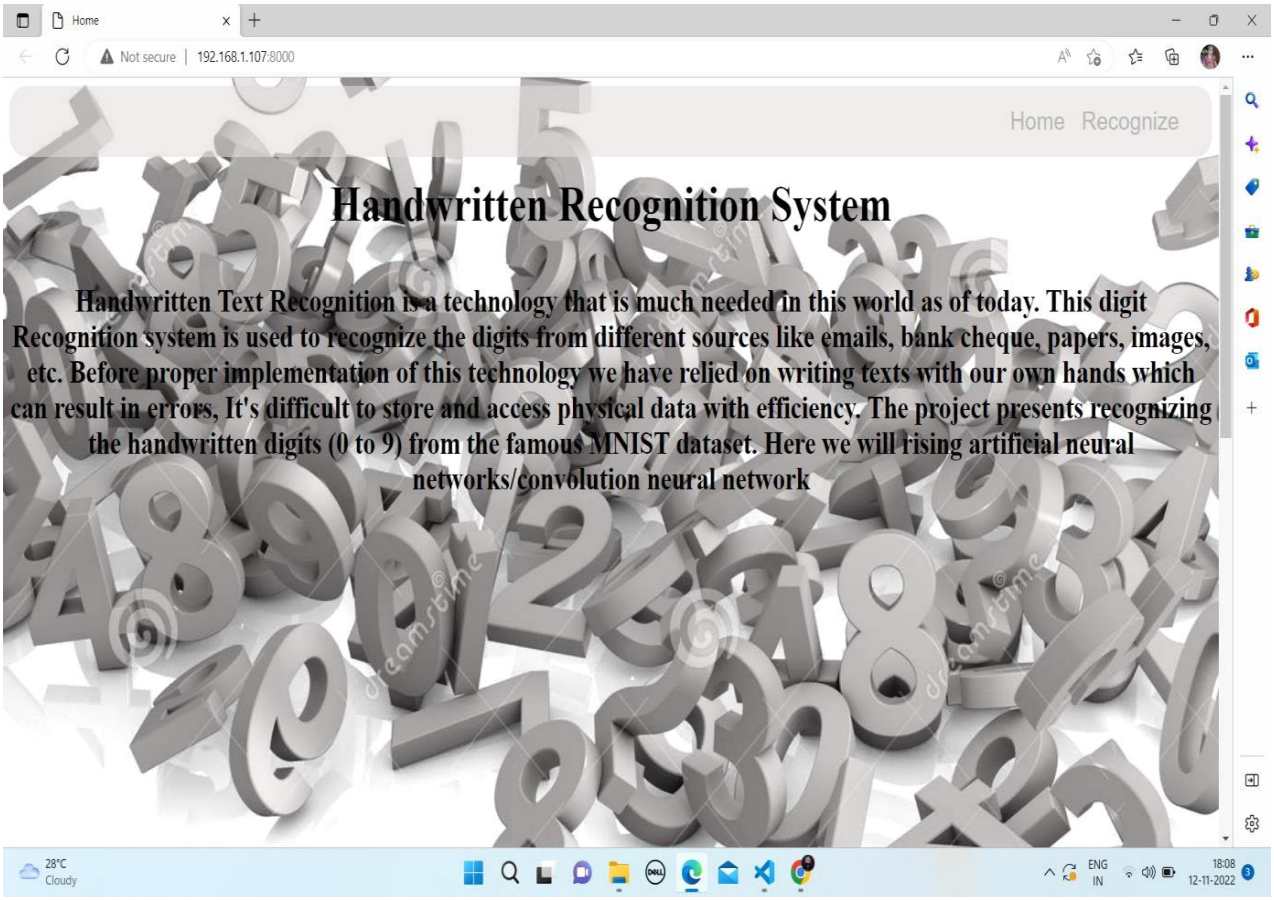
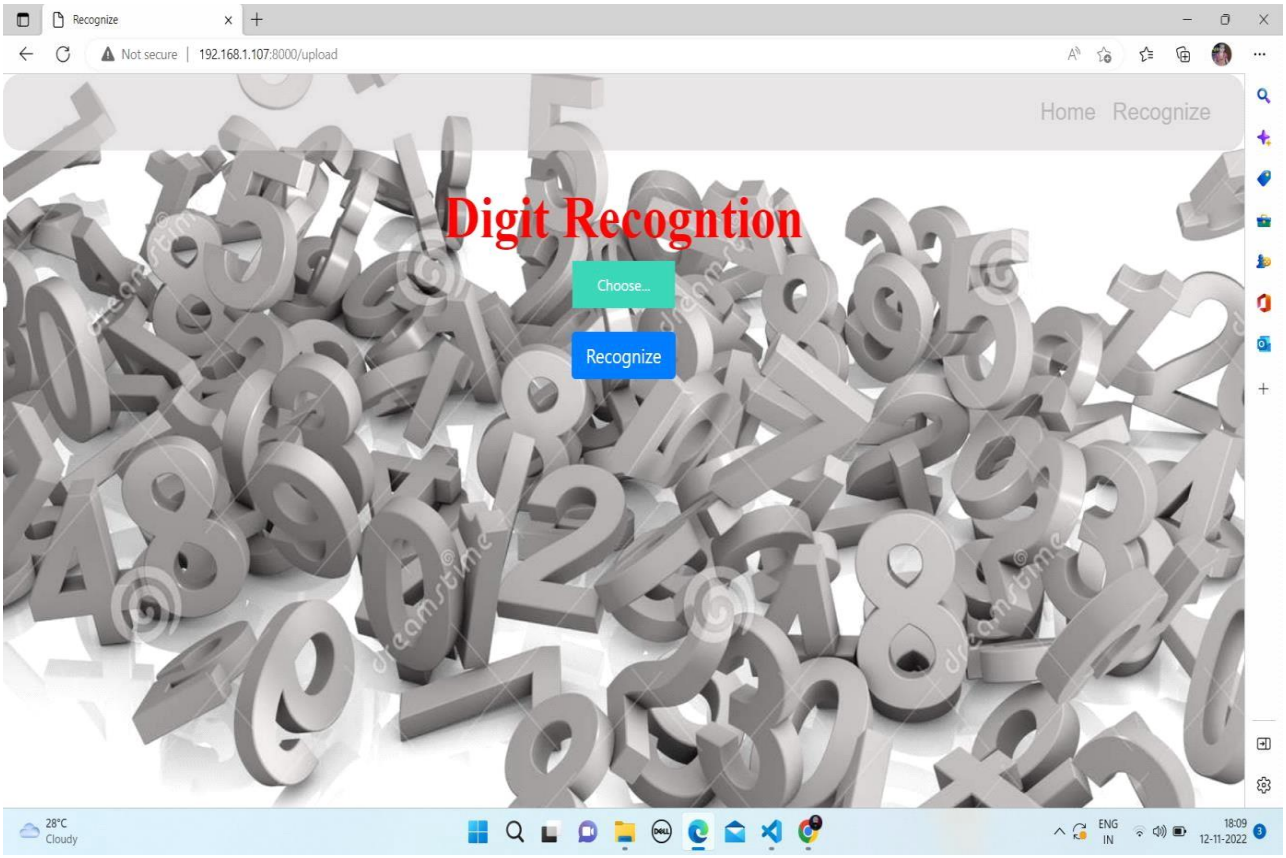
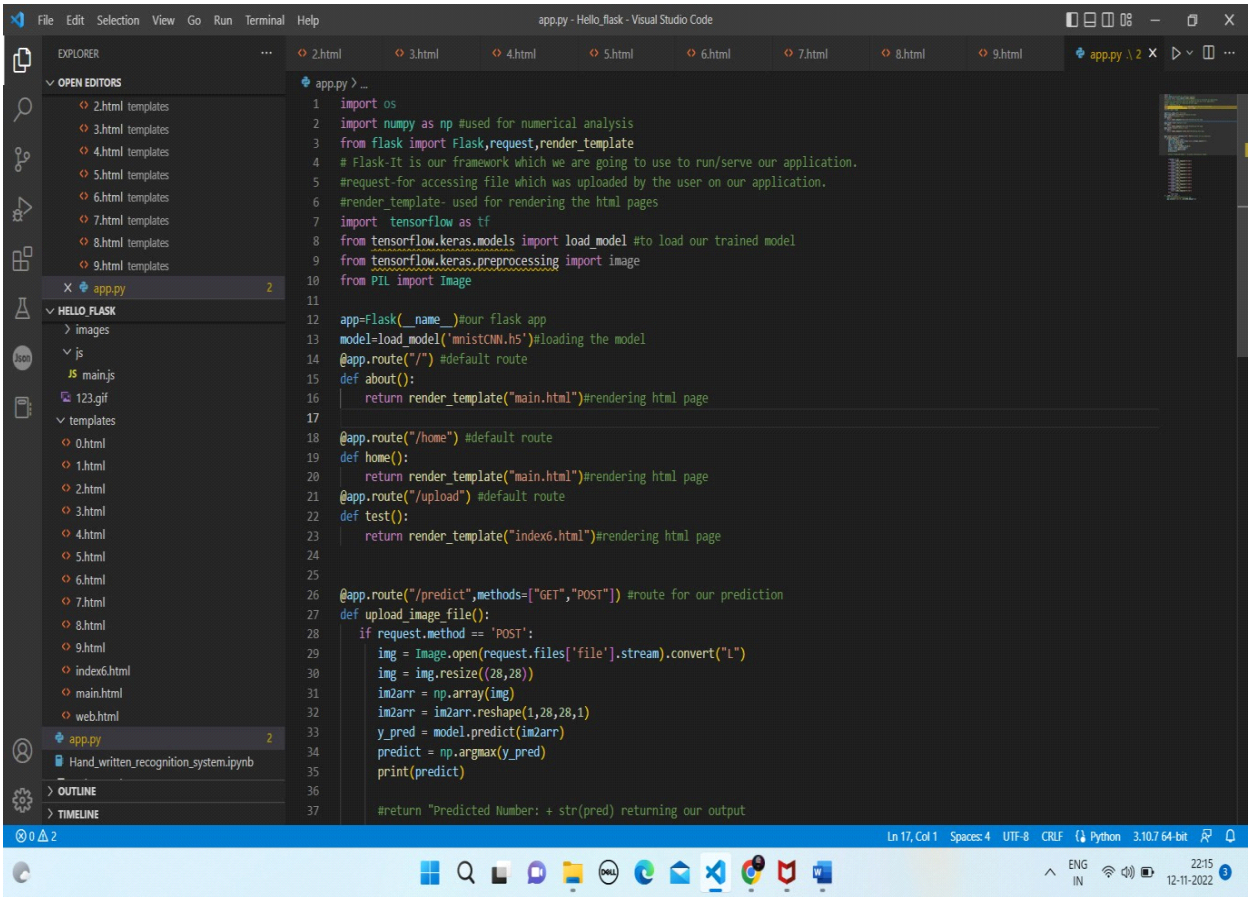
Project
Development
PhaseSprint-3

Date	11 November 2022
Team ID	PNT2022TMID39478
Project Name	A Novel Method for Handwritten Digit Recognition System





Python code(app.py)


File Edit Selection View Go Run Terminal Help
app.py - Hello_flask - Visual Studio Code
EXPLORER
OPEN EDITORS
2.html templates
3.html templates
4.html templates
5.html templates
6.html templates
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8.html templates
9.html templates
app.py 2
HELLO_FLASK
images
js
main.js
123.gif
templates
0.html
1.html
2.html
3.html
4.html
5.html
6.html
7.html
8.html
9.html
index6.html
main.html
web.html
app.py 2
Hand_written_recognition_system.ipynb
OUTLINE
TIMELINE
2.html 3.html 4.html 5.html 6.html 7.html 8.html 9.html app.py \ 2
app.py > ...
1 import os
2 import numpy as np #used for numerical analysis
3 from flask import Flask,request,render_template
4 # Flask-It is our framework which we are going to use to run/serve our application.
5 #request-for accessing file which was uploaded by the user on our application.
6 #render_template- used for rendering the html pages
7 import tensorflow as tf
8 from tensorflow.keras.models import load_model #to load our trained model
9 from tensorflow.keras.preprocessing import image
10 from PIL import Image
11
12 app=Flask(__name__)#our flask app
13 model=load_model('mnistCNN.h5')#loading the model
14 @app.route("/") #default route
15 def about():
16 return render_template("main.html")#rendering html page
17
18 @app.route("/home") #default route
19 def home():
20 return render_template("main.html")#rendering html page
21 @app.route("/upload") #default route
22 def test():
23 return render_template("index6.html")#rendering html page
24
25
26 @app.route("/predict",methods=["GET","POST"]) #route for our prediction
27 def upload_image_file():
28 if request.method == 'POST':
29 img = Image.open(request.files['file'].stream).convert("L")
30 img = img.resize((28,28))
31 im2arr = np.array(img)
32 im2arr = im2arr.reshape(1,28,28,1)
33 y_pred = model.predict(im2arr)
34 predict = np.argmax(y_pred)
35 print(predict)
36
37 #return "Predicted Number: + str(pred) returning our output
Ln 17, Col 1 Spaces: 4 UTF-8 CRLF Python 3.10.7 64-bit
ENG IN
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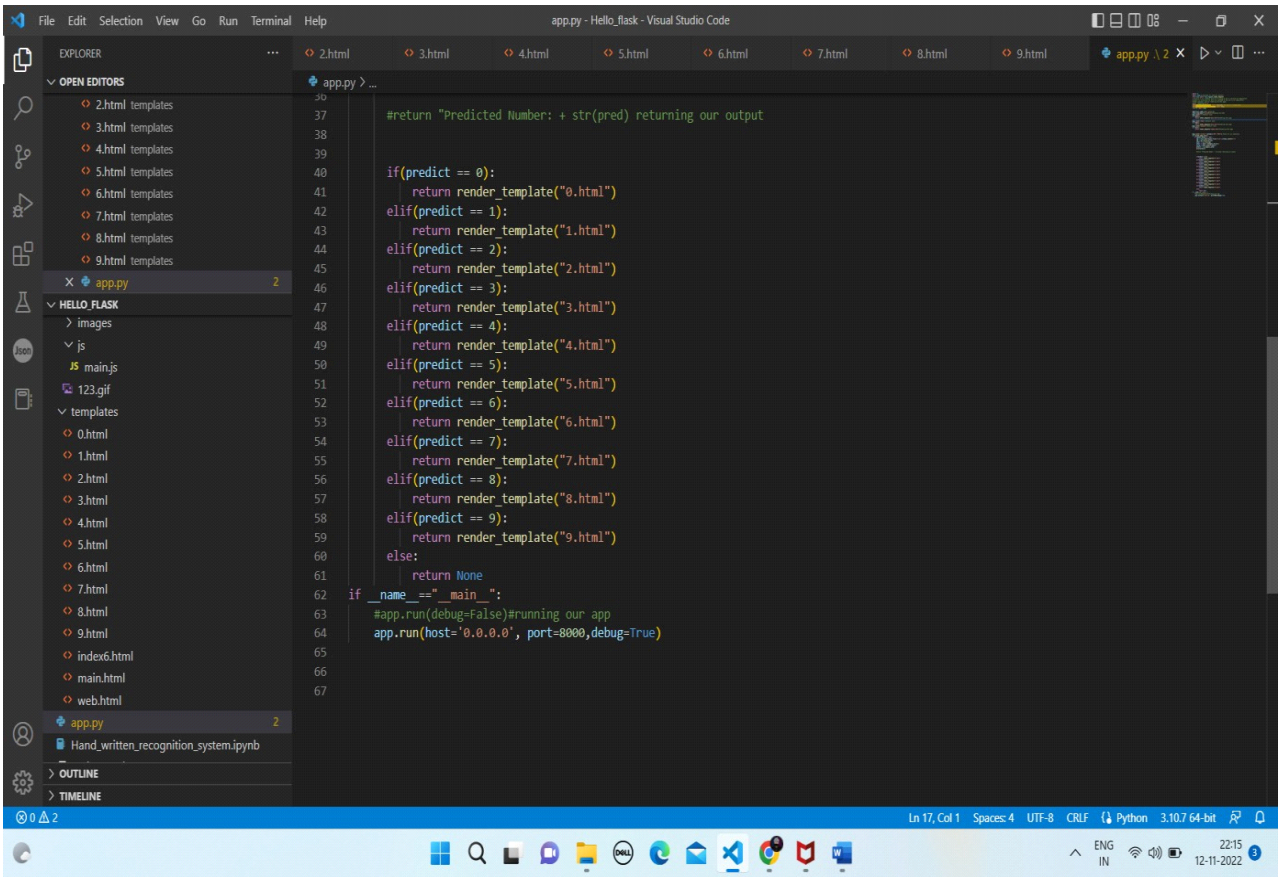
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OUTLINE
TIMELINE
2.html 3.html 4.html 5.html 6.html 7.html 8.html 9.html app.py 2
app.py > ...
#return "Predicted Number: + str(pred) returning our output
if(predict == 0):
return render_template("0.html")
elif(predict == 1):
return render_template("1.html")
elif(predict == 2):
return render_template("2.html")
elif(predict == 3):
return render_template("3.html")
elif(predict == 4):
return render_template("4.html")
elif(predict == 5):
return render_template("5.html")
elif(predict == 6):
return render_template("6.html")
elif(predict == 7):
return render_template("7.html")
elif(predict == 8):
return render_template("8.html")
elif(predict == 9):
return render_template("9.html")
else:
return None
if __name__=="__main__":
#app.run(debug=False)#running our app
app.run(host='0.0.0.0', port=8000,debug=True)
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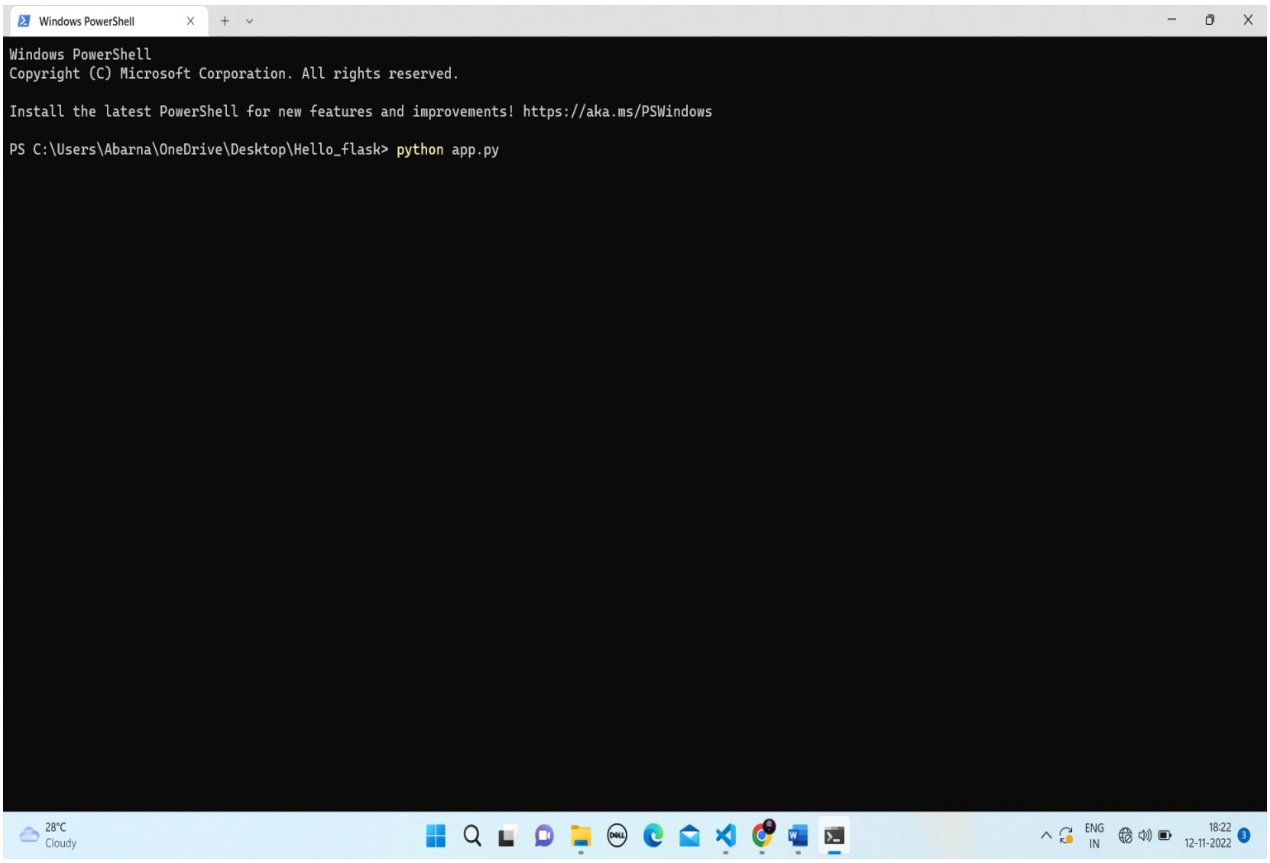
Windows PowerShell
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows
PS C:\Users\Abarna\OneDrive\Desktop\Hello_flask> python app.py
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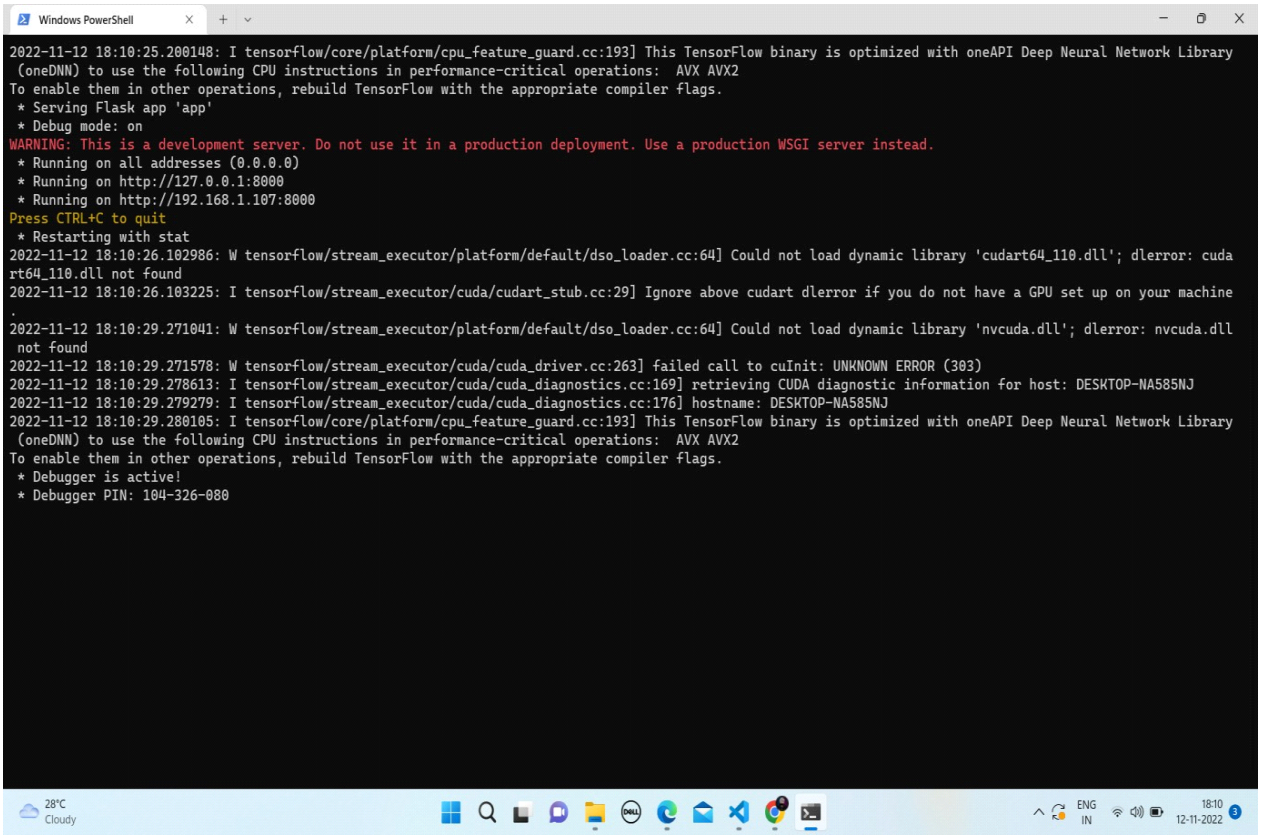
Windows PowerShell
2022-11-12 18:10:25.200148: I tensorflow/core/platform/cpu_feature_guard.cc:193] This TensorFlow binary is optimized with oneAPI Deep Neural Network Library (oneDNN) to use the following CPU instructions in performance-critical operations: AVX AVX2
To enable them in other operations, rebuild TensorFlow with the appropriate compiler flags.
* Serving Flask app 'app'
* Debug mode: on
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:8000
* Running on http://192.168.1.107:8000
Press CTRL+C to quit
* Restarting with stat
2022-11-12 18:10:26.102986: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic library 'cudart64_110.dll'; dlerror: cudart64_110.dll not found
2022-11-12 18:10:26.103225: I tensorflow/stream_executor/cuda/cudart_stub.cc:29] Ignore above cudart dlerror if you do not have a GPU set up on your machine.
2022-11-12 18:10:29.271041: W tensorflow/stream_executor/platform/default/dso_loader.cc:64] Could not load dynamic library 'nvcuda.dll'; dlerror: nvcuda.dll not found
2022-11-12 18:10:29.271578: W tensorflow/stream_executor/cuda/cuda_driver.cc:263] failed call to cuInit: UNKNOWN ERROR (303)
2022-11-12 18:10:29.278613: I tensorflow/stream_executor/cuda/cuda_diagnostics.cc:169] retrieving CUDA diagnostic information for host: DESKTOP-NA585NJ
2022-11-12 18:10:29.279279: I tensorflow/stream_executor/cuda/cuda_diagnostics.cc:176] hostname: DESKTOP-NA585NJ
2022-11-12 18:10:29.280105: I tensorflow/core/platform/cpu_feature_guard.cc:193] This TensorFlow binary is optimized with oneAPI Deep Neural Network Library (oneDNN) to use the following CPU instructions in performance-critical operations: AVX AVX2
To enable them in other operations, rebuild TensorFlow with the appropriate compiler flags.
* Debugger is active!
* Debugger PIN: 104-326-080
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Cloudy
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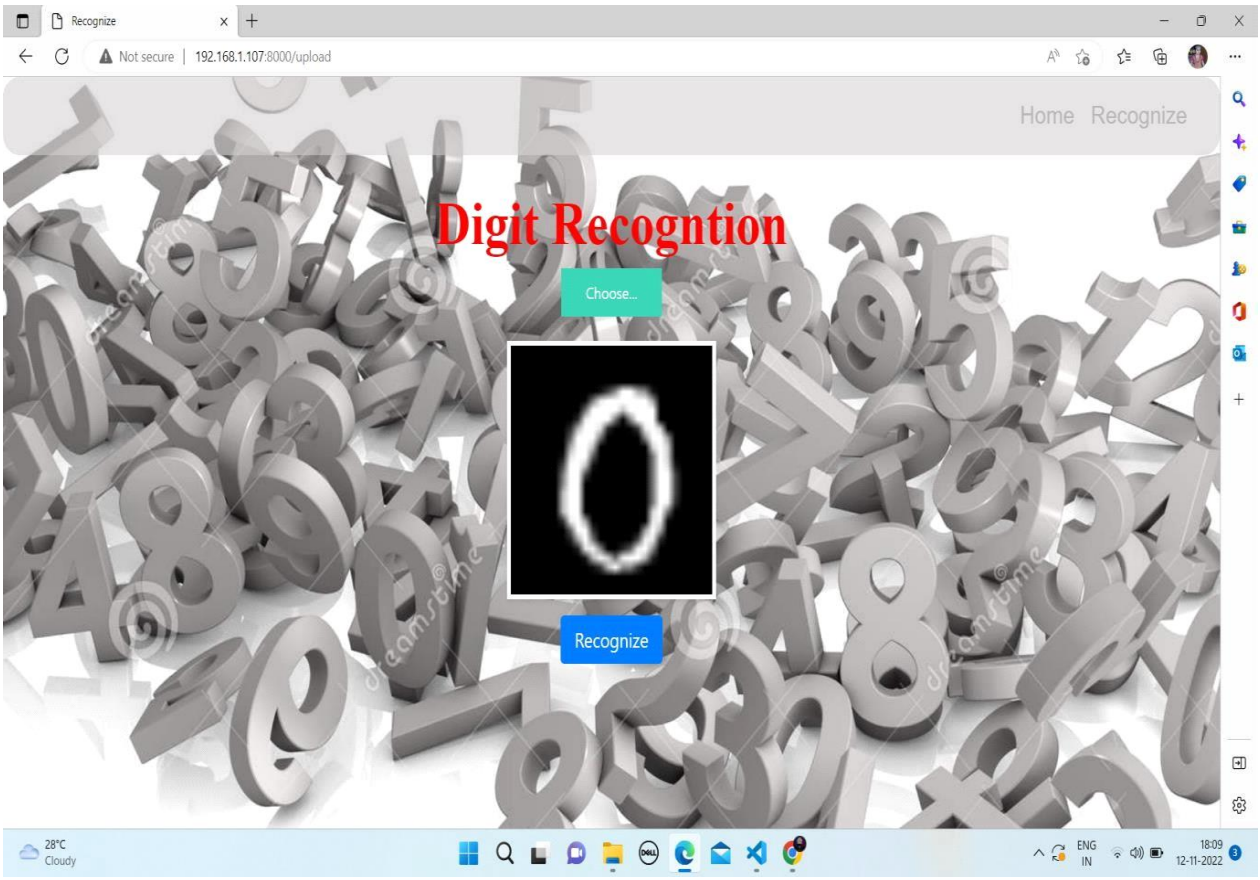
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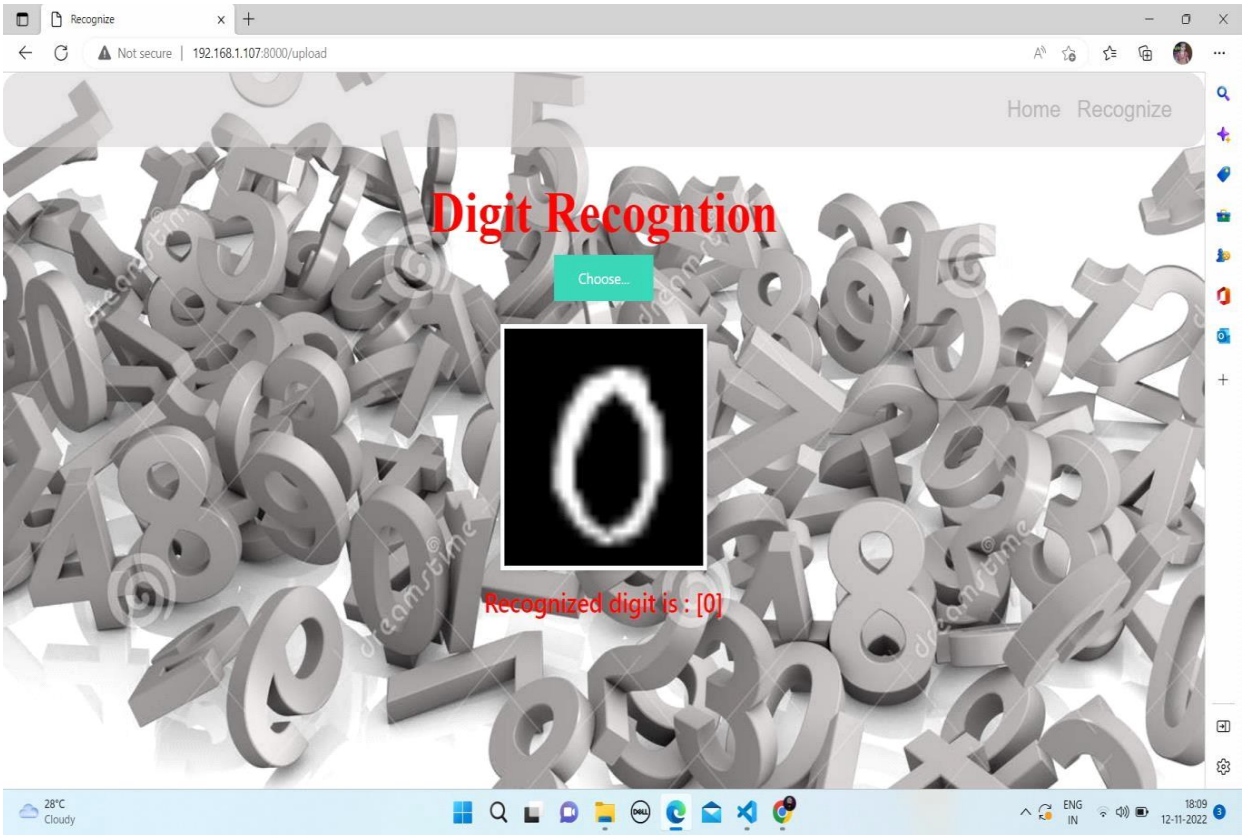
Recognize
Not secure | 192.168.1.107:8000/upload
Home Recognize
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