

Project Development Phase

Sprint 3

Python Code:

```
from flask import Flask, render_template, request
from PIL import Image
import numpy as np
from tensorflow.keras.models import load_model
import tensorflow as tf
from flask import Flask

#You need to use following line [app Flask(__name__)]
app = Flask(__name__,template_folder="templates")
model = load_model("models/mnistCNN.h5")

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

@app.route('/main')
def upload_file1():
    return render_template('main.html')

@app.route('/Recognize',methods = ['POST'])
def upload_image_file():
```

```
if request.method == 'POST':  
    img = Image.open(request.files['file'].stream).convert("L")  
    img = img.resize((28,28))  
    im2arr = np.array(img)  
    im2arr = im2arr.reshape(1,28,28,1)  
    y_pred = model.predict_classes(im2arr)  
    print(y_pred)
```

```
if(y_pred == 0) :  
    return render_template("0.html", showcase = str(y_pred))  
elif(y_pred == 1) :  
    return render_template("1.html", showcase = str(y_pred))  
elif(y_pred == 2) :  
    return render_template("2.html", showcase = str(y_pred))  
elif(y_pred == 3) :  
    return render_template("3.html", showcase = str(y_pred))  
elif(y_pred == 4) :  
    return render_template("4.html", showcase = str(y_pred))  
elif(y_pred == 5) :  
    return render_template("5.html", showcase = str(y_pred))  
elif(y_pred == 6) :  
    return render_template("6.html", showcase = str(y_pred))  
elif(y_pred == 7) :  
    return render_template("7.html", showcase = str(y_pred))  
elif(y_pred == 8) :
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    return render_template("8.html", showcase = str(y_pred))
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else :
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    return render_template("9.html", showcase = str(y_pred))
```

```
if __name__ == '__main__':
```

```
    app.run(host='0.0.0.0',port=8000,debug=True,threaded=False)
```