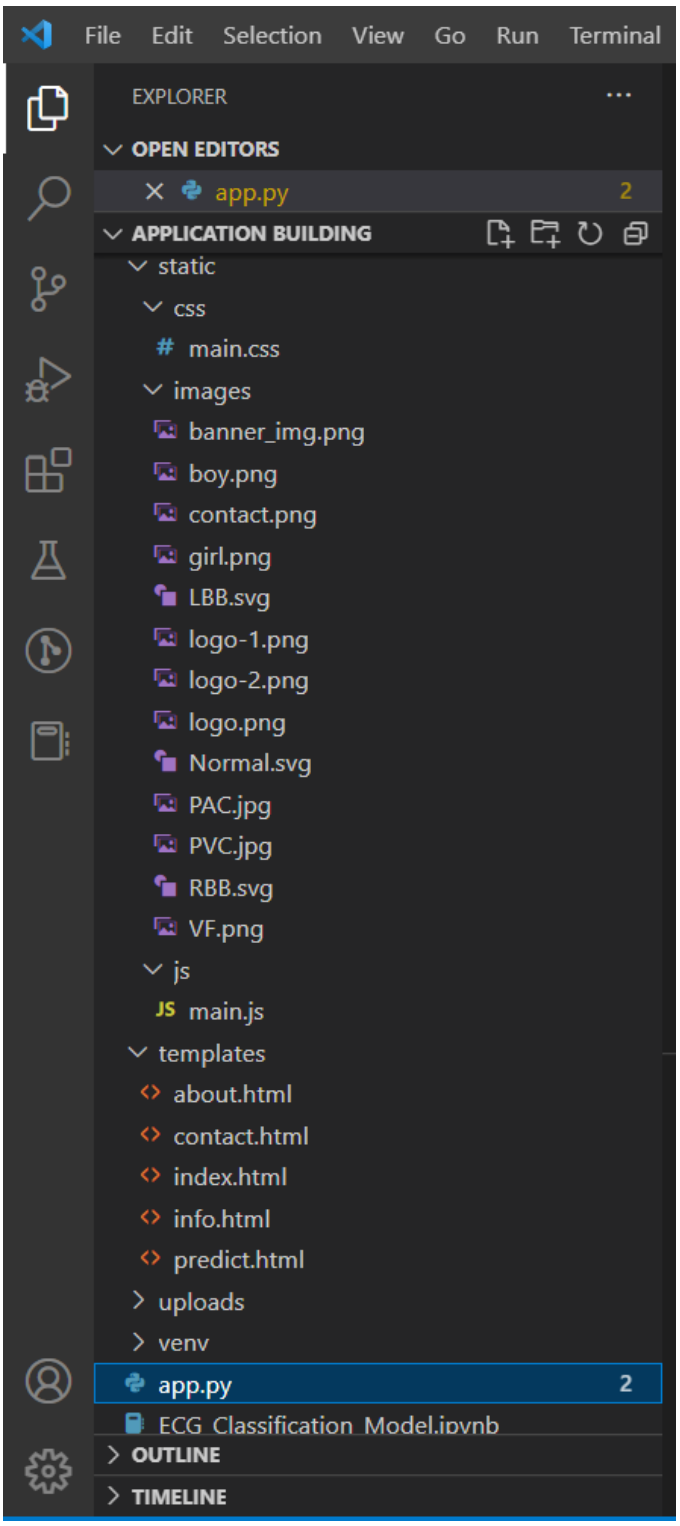
Sprint - 3
Build Python Code

Team ID	PNT2022TMID04852
Project Name	Project - Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation

Project Structure:



APP.py:

```
import os
import numpy as np
from flask import Flask, request, render_template
from tensorflow.keras.models import load_model
from tensorflow.keras.preprocessing import image

app = Flask(__name__)
model = load_model('ECG.h5')

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

@app.route("/info")
def information():
    return render_template("/templates/info.html")

@app.route("/about")
def about_us():
    return render_template('/templates/about.html')
@app.route("/contact")
def contact_us():
    return render_template('/templates/contact.html')

@app.route("/upload")
def test():
    return render_template("/templates/predict.html")
```

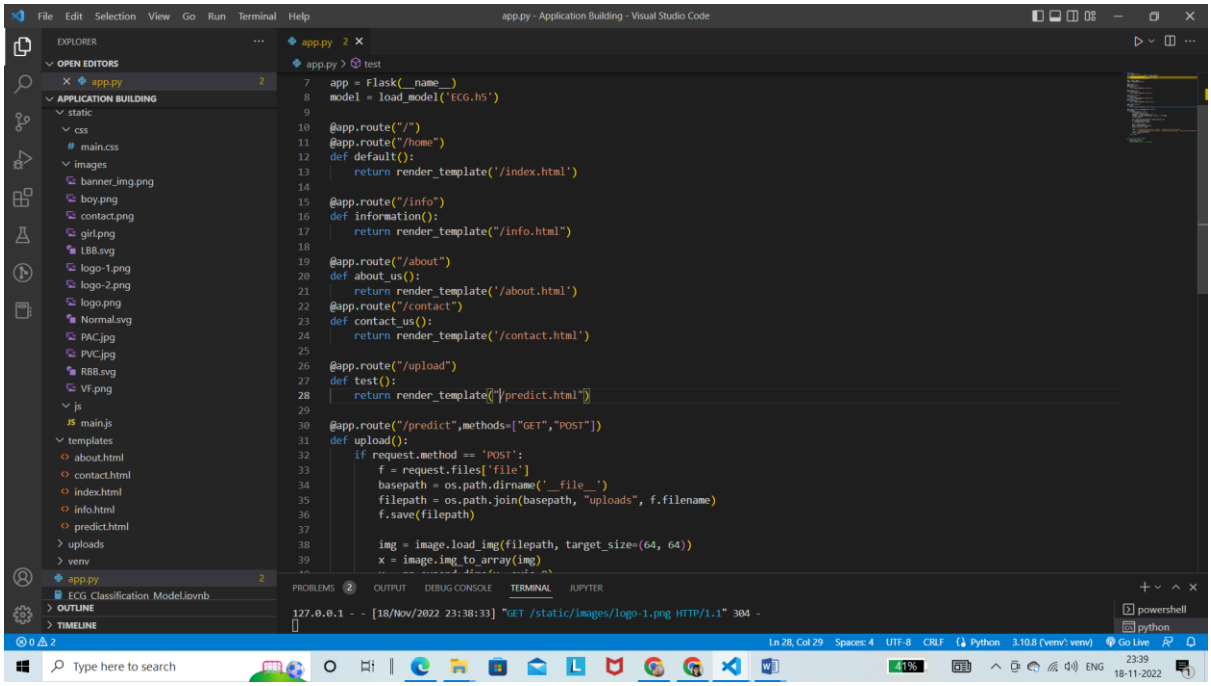
```
@app.route("/predict",methods=["GET","POST"])
def upload():
    if request.method == 'POST':
        f = request.files['file']
        basepath = os.path.dirname('__file__')
        filepath = os.path.join(basepath, "uploads", f.filename)
        f.save(filepath)

        img = image.load_img(filepath, target_size=(64, 64))
        x = image.img_to_array(img)
        x = np.expand_dims(x, axis=0)

        preds = model.predict(x)
        pred = np.argmax(preds, axis=1)
        print("prediction", pred)

        index = ['Left Bundle Branch Block', 'Normal', 'Premature Atrial Contraction',
                 'Premature Ventricular Contractions', 'Right Bundle Branch Block',
'Ventricular Fibrillation']
        result = str(index[pred[0]])
        return result
    return None


# port = int(os.getenv("PORT"))
if __name__ == "__main__":
    app.run(debug=False)
    # app.run(host='0.0.0.0', port=8000)
```


File Edit Selection View Go Run Terminal Help
app.py - Application Building - Visual Studio Code
EXPLORER
OPEN EDITORS
app.py 2
APPLICATION BUILDING
static
css
main.css
images
banner_img.png
boy.png
contact.png
girl.png
LBB.svg
logo-1.png
logo-2.png
logo.png
Normal.svg
PAC.jpg
PVC.jpg
RBB.svg
VF.png
js
main.js
templates
about.html
contact.html
index.html
info.html
predict.html
uploads
venv
app.py 2
ECG_Classification_Model.ipynb
OUTLINE
TIMELINE
app.py 2
app.py > test
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PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER
127.0.0.1 - - [18/Nov/2022 23:38:33] "GET /static/images/logo-1.png HTTP/1.1" 304 -
powershell
python
Ln 28, Col 29 Spaces: 4 UTF-8 CRLF Python 3.10.8 ('venv': venv) Go Live
Type here to search
41%
ENG
23:39
18-11-2022