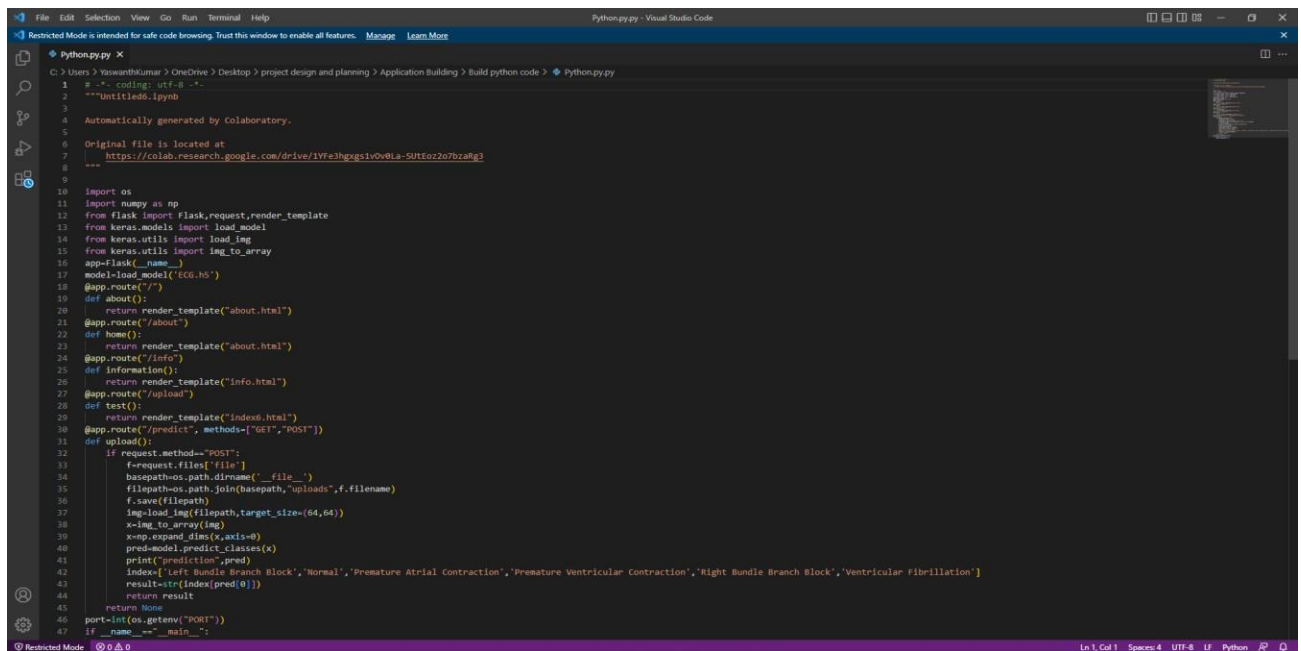


SPRINT-4

| | |
|--------------|--|
| DATE | 16 NOVEMBER 2022 |
| PROJECT NAME | Classification of arrhythmia by using deep learning with 2-d ecg spectral image representation |
| TEAM ID | PNT2022TMID24237 |

The Python code behind classification of Arrhythmia :



```
1 # -*- coding: utf-8 -*-
2 """Untitled6.ipynb
3
4 Automatically generated by Colaboratory.
5
6 Original file is located at
7 https://colab.research.google.com/drive/1W3hggs1v0v0La-SUtfoz2o7braBg3
8 """
9
10 import os
11 import numpy as np
12 from flask import Flask, request, render_template
13 from keras.models import load_model
14 from keras.utils import load_img
15 from keras.utils import img_to_array
16 app = Flask(__name__)
17 model = load_model('ECG.h5')
18 @app.route("/")
19 def about():
20     return render_template("about.html")
21 @app.route("/about")
22 def home():
23     return render_template("about.html")
24 @app.route("/info")
25 def information():
26     return render_template("info.html")
27 @app.route("/upload")
28 def test():
29     return render_template("index.html")
30 @app.route("/predict", methods=['GET', 'POST'])
31 def upload():
32     if request.method == "POST":
33         f = request.files["file"]
34         basepath = os.path.dirname(__file__)
35         file_path = os.path.join(basepath, "uploads", f.filename)
36         f.save(file_path)
37         img = load_img(file_path, target_size=(64, 64))
38         x = img_to_array(img)
39         x = np.expand_dims(x, axis=0)
40         pred = model.predict_classes(x)
41         print("prediction", pred)
42         index = ['left Bundle Branch Block', 'Normal', 'Premature Atrial Contraction', 'Premature Ventricular Contraction', 'Right Bundle Branch Block', 'Ventricular Fibrillation']
43         result = str(index[pred[0]])
44         return result
45     return None
46 port = int(os.getenv("PORT"))
47 if __name__ == "__main__":
```