

SPRINT-3
APPLICATION BUILDING
HTML FILE

Date	15 November 2022
Team ID	PNT2022TMID26020
Project Name	Project - Classification of Arrhythmia by Using Deep Learning with 2-D ECG Spectral Image Representation
Sprint	3

HTML CODE FOR HOME (INDEX PAGE):

```
import numpy as np

import os

from tensorflow.keras.models import load_model
from tensorflow.keras.preprocessing import image
from flask import Flask,render_template,request

app=Flask(__name__)

model=load_model('C:/Users/dharshini/Desktop/Sprint_3/Application building/ECG.h5')

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

@app.route('/predict',methods=['GET','POST'])
def upload():
```

```
text=""

if request.method=='POST':

    f=request.files['image']

    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)

    pred=np.argmax(model.predict(x),axis=1)

    if pred==0:

        text="left Bundle Branch block"

        print(text)


    elif pred==1:

        text="Normal"

        print(text)


    elif pred==2:

        text="Premature Atrial Contraction"

        print(text)


    elif pred==3:

        text="Premature Ventricular Contraction"

        print(text)


    elif pred==4:

        text="Right Bundle Branch Block"

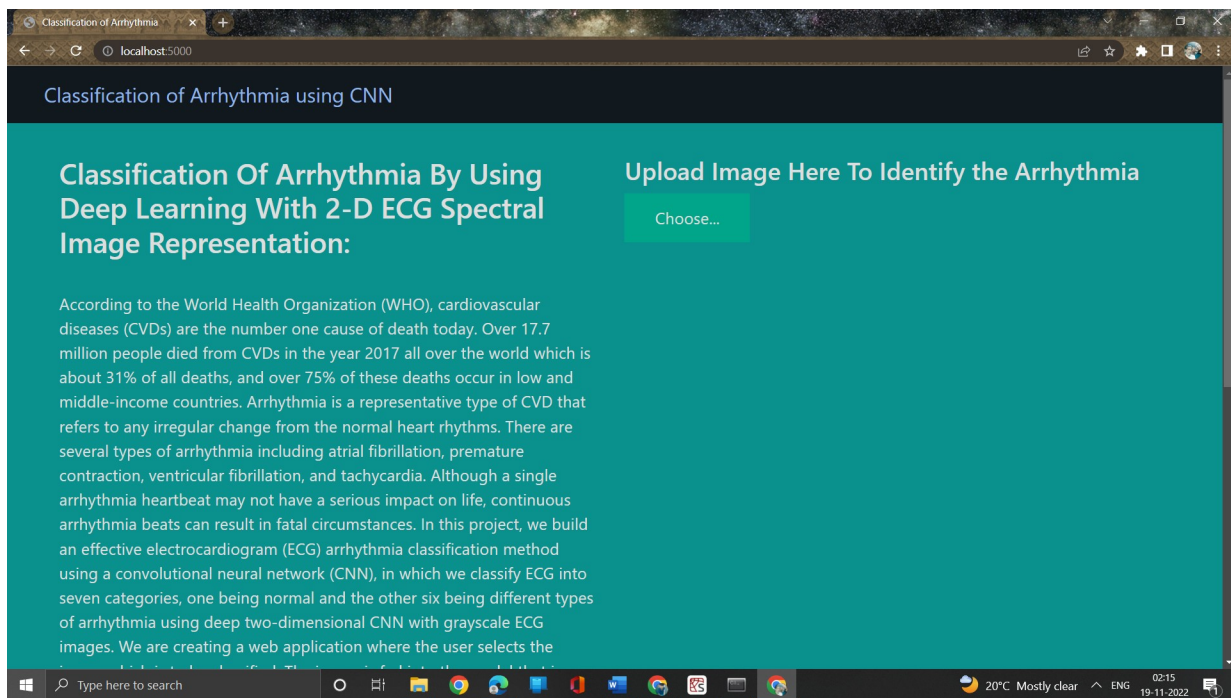
        print(text)
```

```
else:
    text="Ventricular Fibrillation"
    print(text)

return text

if __name__=='__main__':
    app.run(debug=False)
```

INDEX PAGE (SCREEN SHOT):



Classification of Arrhythmia

localhost:5000

20°C Mostly clear 02:15 19-11-2022

Arrhythmias ... Why?

The diagram illustrates the electrical system of the heart, showing the conduction pathway. The Sinoatrial (SA) Node is the primary pacemaker, located in the right atrium. It sends electrical impulses through the Anterior, Middle, and Posterior Internodal Tracts to the Atrioventricular (AV) Node. From the AV Node, the impulse travels through the Bundle of His, which splits into the Left and Right Bundle Branches. The Left Bundle Branch further divides into the Conduction Pathways. The Right Bundle Branch also leads to the Conduction Pathways. Bachmann's Bundle is shown connecting the two atria. The entire system is labeled as the Electrical System of the Heart.