Project Development Phase Delivery of Sprint 4

Date	10 November 2022
Team ID	PNT2022TMID30154
Project Name	Project - Early Detection of Chronic Kidney Disease

USN-7: As a user, I can view the result for the given input.

Python Flask Code:

```
import numpy as np
import pandas as pd
from flask import Flask, request, render_template
import pickle
app = Flask(__name__)
model=pickle.load(open('CKD.pkl','rb'))
@app.route('/')
@app.route('/home')
def home():
    return render_template('Home page.html')
@app.route('/bmi')
def bmi():
    return render_template('Calculator.html')
@app.route('/information')
def information():
    return render_template('Information.html')
@app.route('/predictor')
def predictor():
    return render_template('predictor.html')
@app.route('/result',methods=['POST'])
def predict():
    test=[]
    if request.method == 'POST':
        test.append(request.form.get("AGE"))
        test.append(request.form.get("BLOOD_UREA"))
        test.append(request.form.get("BLOOD_GLUCOSE_RANDOM"))
```

```
APPETITE=request.form.get("APPETITE")
        if APPETITE=='YES':
           test.append(1)
       else:
            test.append(0)
        ANEMIA=request.form.get("ANEMIA")
        if ANEMIA=='YES':
            test.append(1)
       else:
            test.append(0)
       CORONARY_ARTERY_DISEASE=request.form.get("CORONARY_ARTERY_DISEASE")
        if CORONARY ARTERY DISEASE=='YES':
            test.append(1)
       else:
            test.append(0)
       PUS CELL=request.form.get("PUS CELL")
        if PUS CELL=='YES':
           test.append(1)
       else:
            test.append(0)
       RED_BLOOD_CELL=request.form.get("RED_BLOOD_CELL")
        if RED_BLOOD_CELL=='YES':
            test.append(1)
       else:
            test.append(0)
       DIABETES_MELLITUS=request.form.get("DIABETES_MELLITUS")
       if DIABETES_MELLITUS=='YES':
            test.append(1)
       else:
            test.append(0)
       PEDAL_EDEMA=request.form.get("PEDAL_EDEMA")
       if PEDAL EDEMA=='YES':
            test.append(1)
       else:
            test.append(0)
   print(test)
   test df=pd.DataFrame(test)
   test_df=np.array(test_df).reshape(1, -1)
   ans1=model.predict(test_df)
   ans2=model.predict(test_df)
   value=0
   if (ans1=='ckd'): value=1
   if value==1:
        answer1="Oops!! You are affected by CHRONIC KIDNEY DISEASE"
render_template('Result1.html',answer1=answer1,ans1=ans1,answer2=ans2)
```

```
answer1="Happy to say, that you are not affected by CHRONIC KIDNEY
DISEASE!!!"
    return
render_template('Result.html',answer1=answer1,ans1=ans1,answer2=ans2)

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

OUTPUT:



HOME

Prediction: Happy to say, that you are not affected by CHRONIC KIDNEY DISEASE!!!





HOME

Prediction: Oops!! You are affected by CHRONIC KIDNEY DISEASE



USN-8: As a user, I can the view symptoms that matches my health condition.

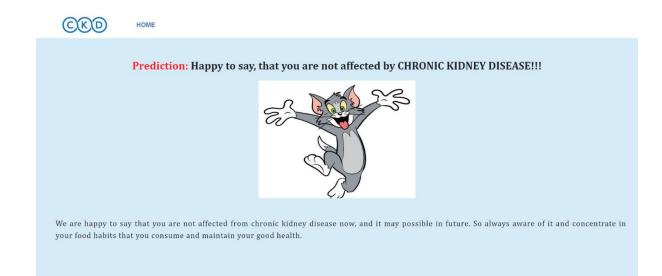
HTML CODE for chronic kidney disease not affected:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>RESULT</title>
    <link rel="icon" type="image/x-icon" href="static/images/title.png">
    <link href="static/css/Result.css" rel="stylesheet" type="text/css" />
    <link rel="stylesheet"</pre>
href="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/dist/css/bootstrap.min.css"
    integrity="sha384-
TX8t27EcRE3e/ihU7zmQxVncDAy5uIKz4rEkgIXeMed4M0jlfIDPvg6uqKI2xXr2"
crossorigin="anonymous">
    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-</pre>
awesome/5.10.0/css/all.min.css"
    integrity="sha512-
PgQMlq+nqFLV4ylk1gwU0gm6CtIIXkKwaIHp/PAIWHzig/lKZSEGKEysh0TCVbHJXCLN7WetD8TFec
Iky75ZfQ=="
    crossorigin="anonymous" />
</head>
<body id='top' style="background-color:#d5ebf7">
    <section class="header menu" id="header menu" >
        <div class="container-fluid px-0 shadow">
            <nav class="navbar navbar-expand-lg navbar-light bg-white py-1">
                <a class="navbar-brand pl-5 pl-small-0" >
                    <img src="static/images/ckd_logo.jpeg" class="img img-</pre>
fluid" width="120px" alt="logo">
                <button class="navbar-toggler" type="button" data-</pre>
toggle="collapse" data-target="#navbarSupportedContent"
                    aria-controls="navbarSupportedContent" aria-
expanded="false" aria-label="Toggle navigation">
                    <span class="navbar-toggler-icon"></span>
                </button>
                <div class="collapse navbar-collapse"</pre>
id="navbarSupportedContent">
                    <a class="nav-link" href="/home"</pre>
style="color:rgba(19, 88, 179, 0.795)">HOME </a>
```

```
</div>
            </nav>
        </div>
    </section>
    <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"</pre>
    integrity="sha384-
DfXdz2htPH0lsSSs5nCTpuj/zy4C+OGpamoFVy38MVBnE+IbbVYUew+OrCXaRkfj"
    crossorigin="anonymous"></script>
src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js"
    integrity="sha384-
9/reFTGAW83EW2RDu2S0VKaIzap3H66lZH81PoYlFhbGU+6BZp6G7niu735Sk7lN"
    crossorigin="anonymous"></script>
src="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/dist/js/bootstrap.min.js"
    integrity="sha384-
w1Q4orYjBQndcko6MimVbzY0tgp4pWB41Z71r30WKz0vr/aWKhXdBNmNb5D92v7s"
    crossorigin="anonymous"></script>
    <div container>
        <div class="font">
             <sapn style="color: rgb(253, 36, 36);">Prediction: </sapn>
{{answer1}}
            <div class="polaroid-wrapper">
                <div class="polaroid">
                    <img class="one"src="static/images/rsnotckd.jpg" alt="5</pre>
Terre" width="400px" height="300px"></a>
                </div>
            </div>
            <div class="box1">
                <h6 class="para">We are happy to say that you are not affected
from chronic kidney disease now, and it may
                    possible in future. So always aware of it and concentrate
in your food habits that you consume and maintain your
                    good health.
                </h6>
            </div>
        </div>
    </div>
</body>
</html>
```

Also completed css code.

OUTPUT:



HTML CODE for chronic kidney disease affected:

```
<!DOCTYPE html>
<html lang="en">
<head>
    <meta charset="UTF-8">
    <meta http-equiv="X-UA-Compatible" content="IE=edge">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
    <title>RESULT</title>
    <link rel="icon" type="image/x-icon" href="static/images/title.png">
    <link href="static/css/Result1.css" rel="stylesheet" type="text/css" />
    <link rel="stylesheet"</pre>
href="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/dist/css/bootstrap.min.css"
    integrity="sha384-
TX8t27EcRE3e/ihU7zmQxVncDAy5uIKz4rEkgIXeMed4M0jlfIDPvg6uqKI2xXr2"
crossorigin="anonymous">
    <link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-</pre>
awesome/5.10.0/css/all.min.css"
    integrity="sha512-
PgQMlq+nqFLV4ylk1gwU0gm6CtIIXkKwaIHp/PAIWHzig/lKZSEGKEysh0TCVbHJXCLN7WetD8TFec
Iky75ZfQ=="
    crossorigin="anonymous" />
</head>
<body id='top' style="background-color:#d5ebf7">
```

```
<section class="header_menu" id="header_menu" >
        <div class="container-fluid px-0 shadow">
            <nav class="navbar navbar-expand-lg navbar-light bg-white py-1">
                <a class="navbar-brand pl-5 pl-small-0" >
                    <img src="static/images/ckd logo.jpeg" class="img img-</pre>
fluid" width="120px" alt="logo">
                <button class="navbar-toggler" type="button" data-</pre>
toggle="collapse" data-target="#navbarSupportedContent"
                   aria-controls="navbarSupportedContent" aria-
expanded="false" aria-label="Toggle navigation">
                   <span class="navbar-toggler-icon"></span>
                </button>
               <div class="collapse navbar-collapse"</pre>
id="navbarSupportedContent">
                   <a class="nav-link" href="/home"</pre>
style="color:rgba(19, 88, 179, 0.795)">HOME </a>
                       </div>
           </nav>
        </div>
    </section>
    <script src="https://code.jquery.com/jquery-3.5.1.slim.min.js"</pre>
    integrity="sha384-
DfXdz2htPH01sSSs5nCTpuj/zy4C+OGpamoFVy38MVBnE+IbbVYUew+OrCXaRkfj"
    crossorigin="anonymous"></script>
src="https://cdn.jsdelivr.net/npm/popper.js@1.16.1/dist/umd/popper.min.js"
    integrity="sha384-
9/reFTGAW83EW2RDu2S0VKaIzap3H661ZH81PoY1FhbGU+6BZp6G7niu735Sk71N"
    crossorigin="anonymous"></script>
src="https://cdn.jsdelivr.net/npm/bootstrap@4.5.3/dist/js/bootstrap.min.js"
    integrity="sha384-
w1Q4orYjBQndcko6MimVbzY0tgp4pWB4lZ7lr30WKz0vr/aWKhXdBNmNb5D92v7s"
    crossorigin="anonymous"></script>
    <div container>
        <div class="font">
            <sapn style="color: rgb(253, 36, 36);">Prediction: </sapn>
{{answer1}}
           <div class="polaroid-wrapper">
               <div class="polaroid">
```

```
<img class="one"src="static/images/rsckd.jpg" alt="5</pre>
Terre" width="300px" height="300px"></a>
                </div>
            </div>
            <div class="box1">
                <h2 class="hold">APPETITE</h2>
                <h6 class="para">If your appetite is poor, kindly concentrate
on your food habits and eat well.
                    Approximately one third of chronic kidney disease patient
complain poor appetite.
                </h6>
            </div>
            <div class="box1">
                <h2 class="hold">ANEMIA</h2>
                <h6 class="para">If you said yes for anemia which means your
blood has a lower than normal amount of red blood cells or
                    hemoglobin and it is less common in early stages of ckd.
Proper diet and high protein content food helps you to come
                    from anemia.
                </h6>
            </div>
            <div class="box1">
                <h2 class="hold">CORONARY ARTERY DISEASE</h2>
                <h6 class="para">If you said yes for coronary artery disease
which means the more stress in put on your heart when
                    kidney doest work well. The heart needs to pump harder to
get blood to kidneys. Change in blood pressure is
                    one of the main complication for ckd.
                </h6>
            </div>
            <div class="box1">
                <h2 class="hold">PUS CEL</h2>
                <h6 class="para">The presence of pus cell in urine may
indicate the presence of urinary tract infection it may leads to
                    other inflammatory kidney disease.
                </h6>
            </div>
            <div class="box1">
                <h2 class="hold">RED BLOOD CELL</h2>
                <h6 class="para">If you said abnormal for red blood cell which
means the count of rbc is decreased and it is the main reason to cause anemia.
And it is early
                    warning signs of chronic kidney disease.
            </div>
            <div class="box1">
                <h2 class="hold">DIABETES MELLITUS</h2>
```

```
<h6 class="para">Chronic kidney disease, also called chronic
kidney failure, involves a gradual loss of kidney function.
                    If you said yes for diabetes mellitus which is the main
reason for kidney failure and it is a condition
                    characterized by high glucose levels which damages the
tiny filtering units of each kidney.
            </div>
            <div class="box1">
                <h2 class="hold">PEDAL EDEMA</h2>
                <h6 class="para">If you said yes for pedal edema it is most
common symptom in chronic kidney disease patients and it occurs
                    due to the loss of functioning of kidney.
                </h6>
            </div>
        </div>
    </div>
</body>
</html>
```

Also completed css code.

OUTPUT:

