

<b>DATE</b>	<b>19 NOV 2022</b>
<b>TEAM ID</b>	<b>PNT2022TMID32429</b>
<b>PROJECT NAME</b>	<b>Early Detection of Chronic Kidney Disease Using Machine Learning</b>

# Application.py code

```
File Edit Selection View Go Run Terminal Help
Restricted Mode is intended for safe code browsing. Trust this window to enable all features. Manage Learn More

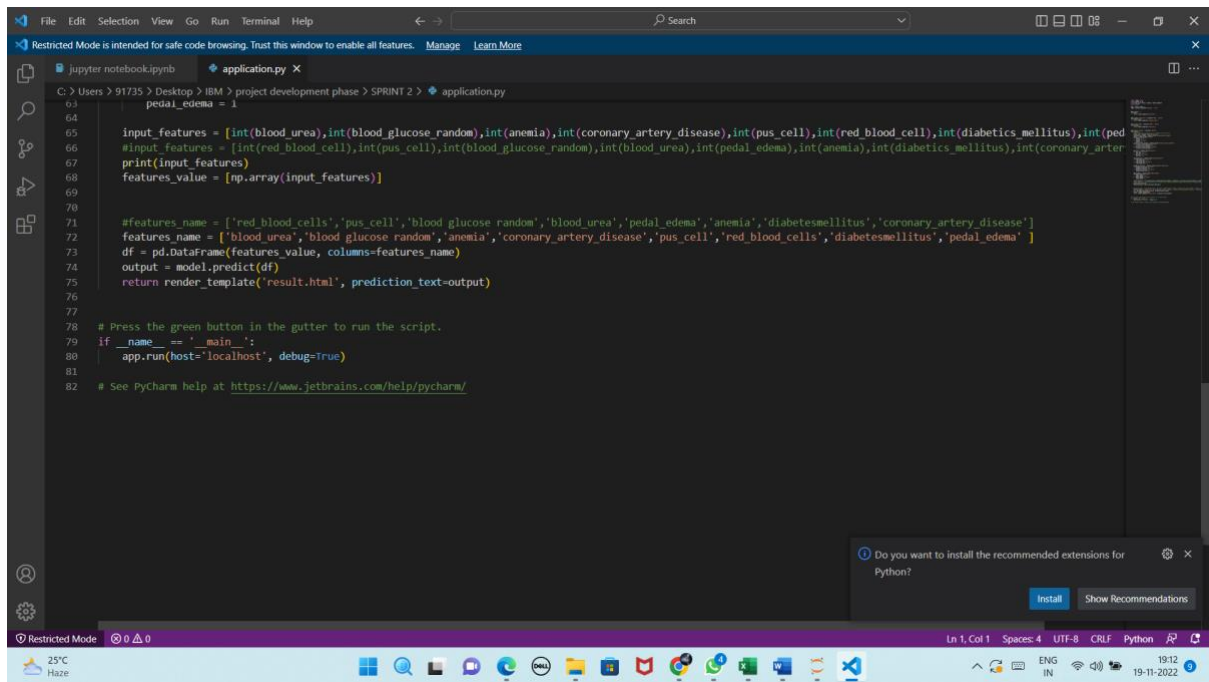
jupyter notebook.ipynb application.py X
C:\Users> 91735 > Desktop > IBM > project development phase > SPRINT 2 > application.py

1 import numpy as np
2 import pandas as pd
3 from flask import Flask, request, render_template
4 import pickle
5
6 app = Flask(__name__)
7 model = pickle.load(open('CKD.pkl', 'rb'))
8
9
10 @app.route('/')
11 def home():
12     return render_template('home.html')
13
14
15 @app.route('/Prediction', methods=['POST', 'GET'])
16 def prediction():
17     return render_template('indexnew.html')
18
19
20 @app.route('/home', methods=['POST', 'GET'])
21 def my_home():
22     return render_template('home.html')
23
24
25 @app.route('/predict', methods=['POST'])
26 def predict():
27     #input features = ([int(x) for x in request.form.values()])
28     blood_urea = request.form["blood_urea"]
29     blood_glucose_random = request.form["blood_glucose_random"]
30     anemia = request.form["Anemia"]
31     if (anemia == "no"):
32         anemia = 0
33     if (anemia == "yes"):
34         anemia = 1
35     coronary_artery_disease = request.form["coronary_artery_disease"]
36     if (coronary_artery_disease == "no"):
```

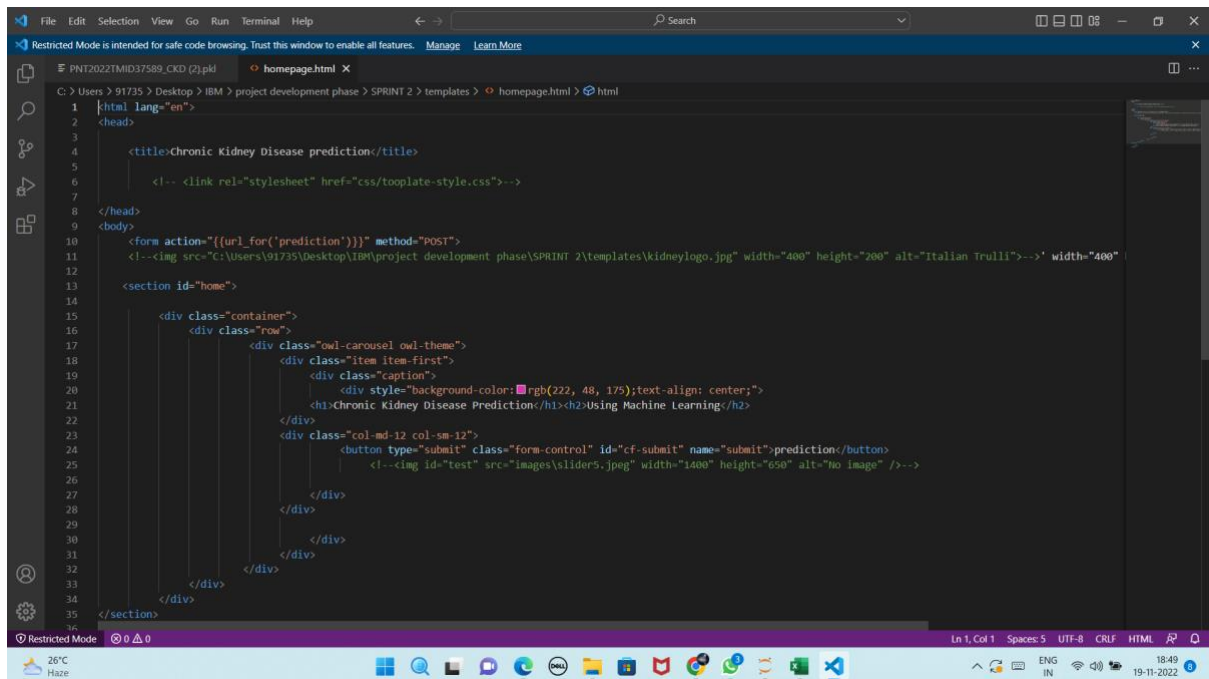
```
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jupyter notebook.ipynb application.py X
C:\Users> 91735 > Desktop > IBM > project development phase > SPRINT 2 > application.py

37     coronary_artery_disease = request.form["coronary_artery_disease"]
38     if (coronary_artery_disease == "no"):
39         coronary_artery_disease = 0
40     if (coronary_artery_disease == "yes"):
41         coronary_artery_disease = 1
42
43     pus_cell = request.form["pus_cell"]
44     if (pus_cell == "no"):
45         pus_cell = 0
46     if (pus_cell == "yes"):
47         pus_cell = 1
48
49     red_blood_cell = request.form["red_blood_cell"]
50     if (red_blood_cell == "no"):
51         red_blood_cell = 0
52     if (red_blood_cell == "yes"):
53         red_blood_cell = 1
54
55     diabetics_mellitus = request.form["diabetics_mellitus"]
56     if (diabetics_mellitus == "no"):
57         diabetics_mellitus = 0
58     if (diabetics_mellitus == "yes"):
59         diabetics_mellitus = 1
60
61     pedal_edema = request.form["pedal_edema"]
62     if (pedal_edema == "no"):
63         pedal_edema = 0
64     if (pedal_edema == "yes"):
65         pedal_edema = 1
66
67     input_features = [int(blood_urea),int(blood_glucose_random),int(anemia),int(coronary_artery_disease),int(pus_cell),int(r
68     #input_features = [int(red_blood_cell),int(pus_cell),int(blood_glucose_random),int(blood_urea),int(pedal_edema),int(anemi
69     print(input_features)
70     features_value = np.array(input_features)
```

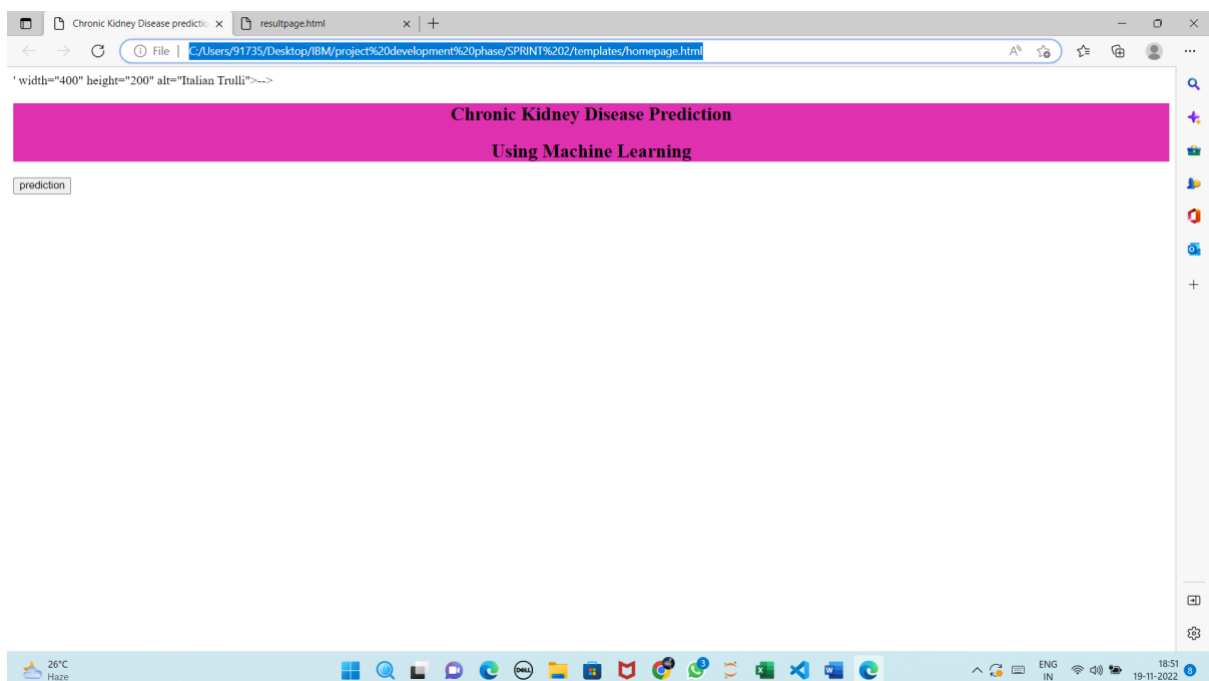


# HTML home page

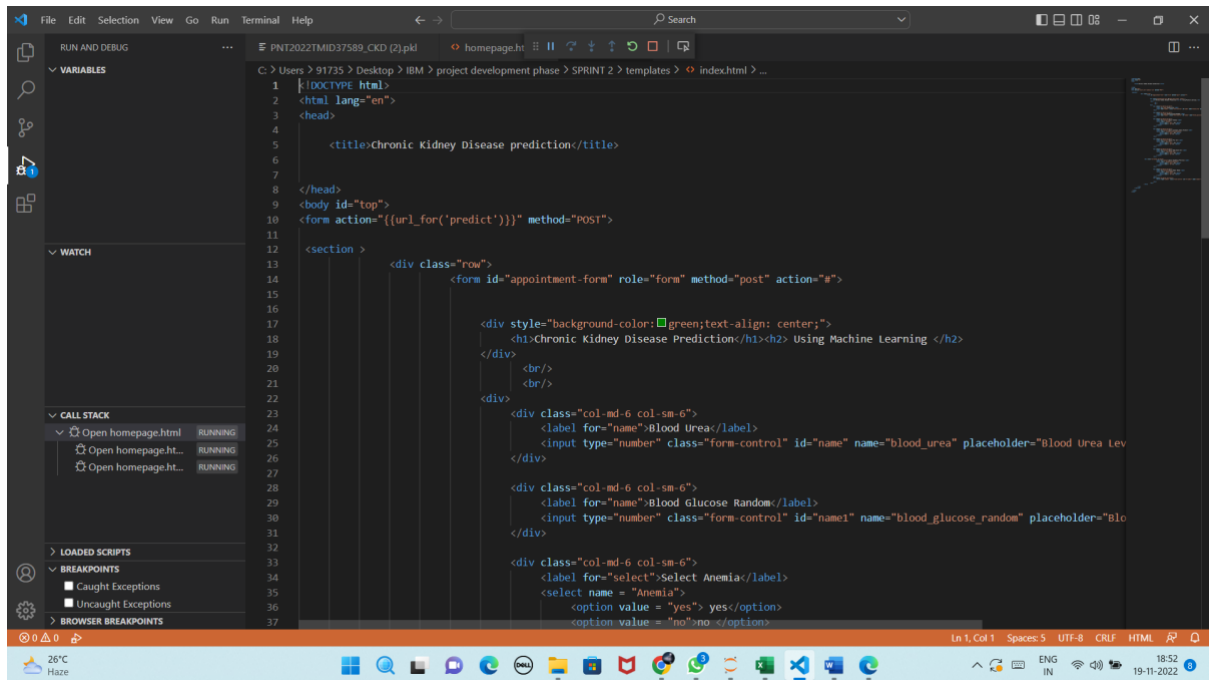


```
1 <html lang="en">
2 <head>
3
4   <title>Chronic Kidney Disease prediction</title>
5
6   <!-- <link rel="stylesheet" href="css/tooplate-style.css">-->
7
8 </head>
9 <body>
10
11   <form action="{{url_for('prediction')}}" method="POST">
12     <!----> width="400"
13
14     <section id="home">
15
16       <div class="container">
17         <div class="row">
18           <div class="owl-carousel owl-theme">
19             <div class="item item-first">
20               <div class="caption">
21                 <div style="background-color: #ff2222; text-align: center;">
22                   <h1>Chronic Kidney Disease Prediction</h1><h2>Using Machine Learning</h2>
23                 </div>
24               <div class="col-md-12 col-sm-12">
25                 <button type="submit" class="form-control" id="cf-submit" name="submit">prediction</button>
26                 <!---->
27               </div>
28             </div>
29           </div>
30         </div>
31       </div>
32     </section>
33
34   </div>
35 </body>
36 </html>
```

# OUTPUT PAGE

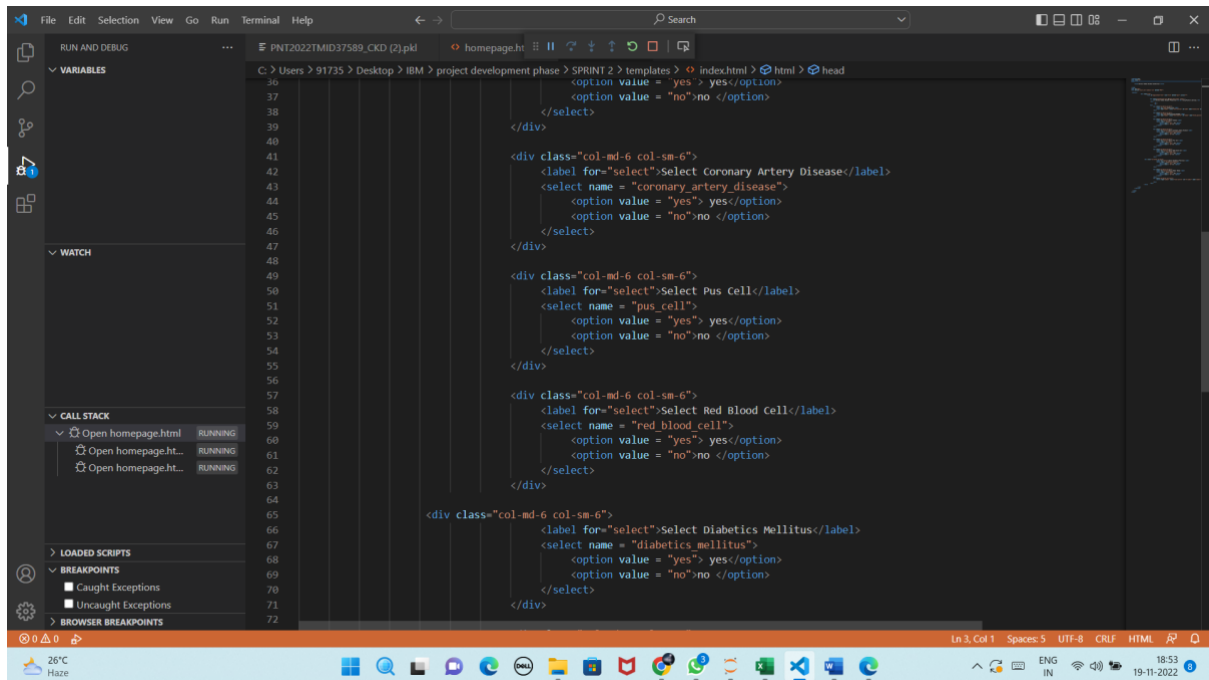


# HTML INDEX PAGE



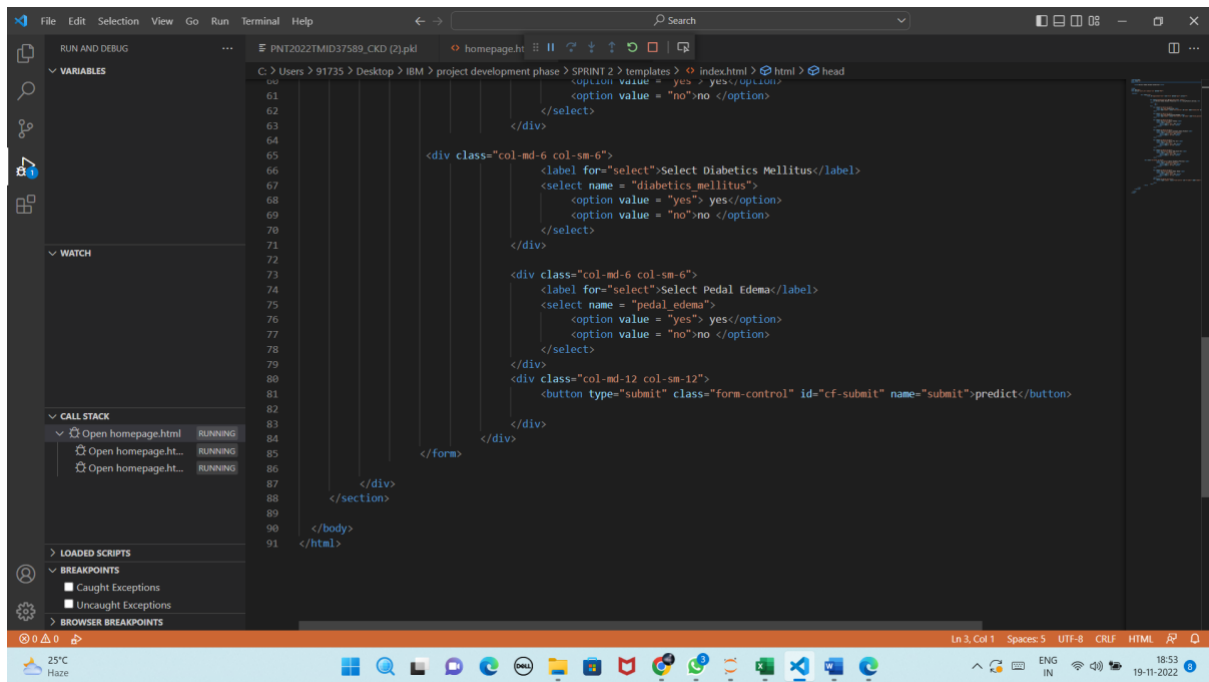
This screenshot shows the VS Code editor with the file `index.html` open. The code defines a form for "Chronic Kidney Disease prediction". The form includes a title, a header, and a main section with a green background. It contains two input fields for "Blood Urea Lev" and "Blood Glucose Random", and a select dropdown for "Anemia". The form is styled with Bootstrap classes and includes a submit button.

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4
5     <title>Chronic Kidney Disease prediction</title>
6
7 </head>
8 <body id="top">
9 <form action="{{url_for('predict')}}" method="POST">
10
11 <section>
12
13     <div class="row">
14
15         <form id="appointment-form" role="form" method="post" action="#">
16
17             <div style="background-color: green; text-align: center;">
18                 <h1>Chronic Kidney Disease Prediction</h1><h2> Using Machine Learning </h2>
19             </div>
20             <br/>
21             <br/>
22
23             <div>
24                 <div class="col-md-6 col-sm-6">
25                     <label for="name">Blood Urea</label>
26                     <input type="number" class="form-control" id="name" name="blood_urea" placeholder="Blood Urea Lev">
27                 </div>
28
29                 <div class="col-md-6 col-sm-6">
30                     <label for="name">Blood Glucose Random</label>
31                     <input type="number" class="form-control" id="name1" name="blood_glucose_random" placeholder="Blood Glucose Random">
32                 </div>
33
34                 <div class="col-md-6 col-sm-6">
35                     <label for="select">Select Anemia</label>
36                     <select name="Anemia">
37                         <option value="yes">yes</option>
```

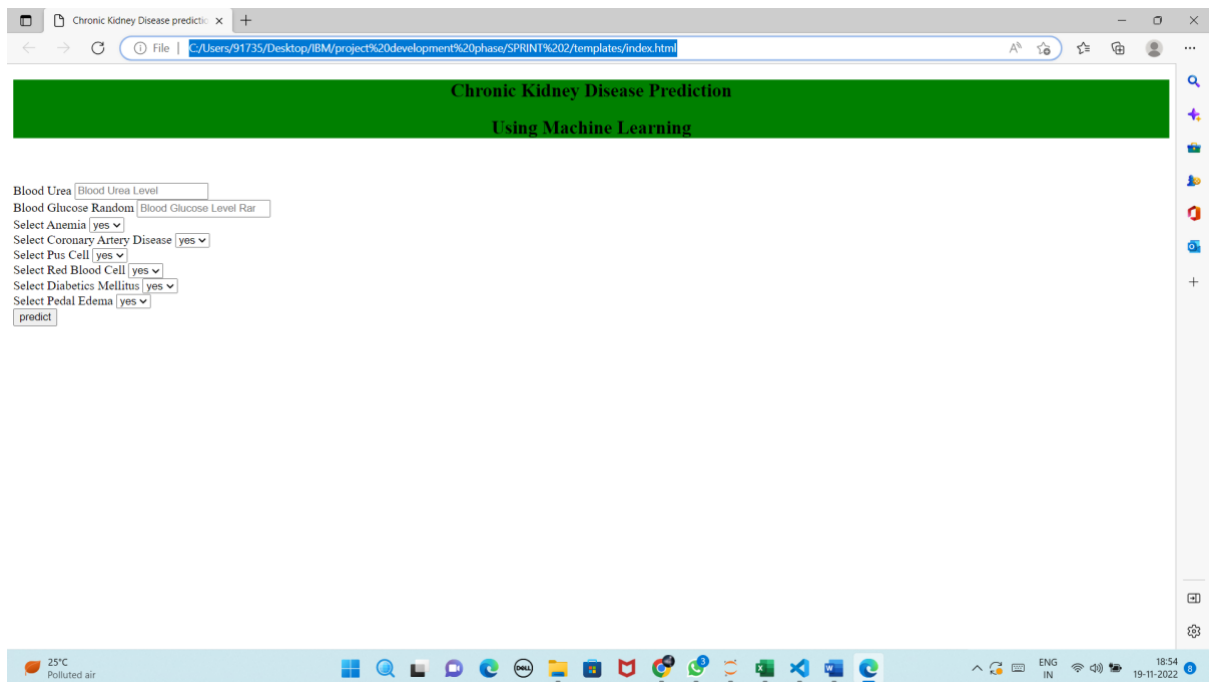


This screenshot shows the VS Code editor with the file `index.html` open. The code continues from the previous screenshot, showing the rest of the form and the closing tags. It includes a select dropdown for "Coronary Artery Disease", a select dropdown for "Pus Cell", a select dropdown for "Red Blood Cell", and a select dropdown for "Diabetics Mellitus". The form is styled with Bootstrap classes and includes a submit button.

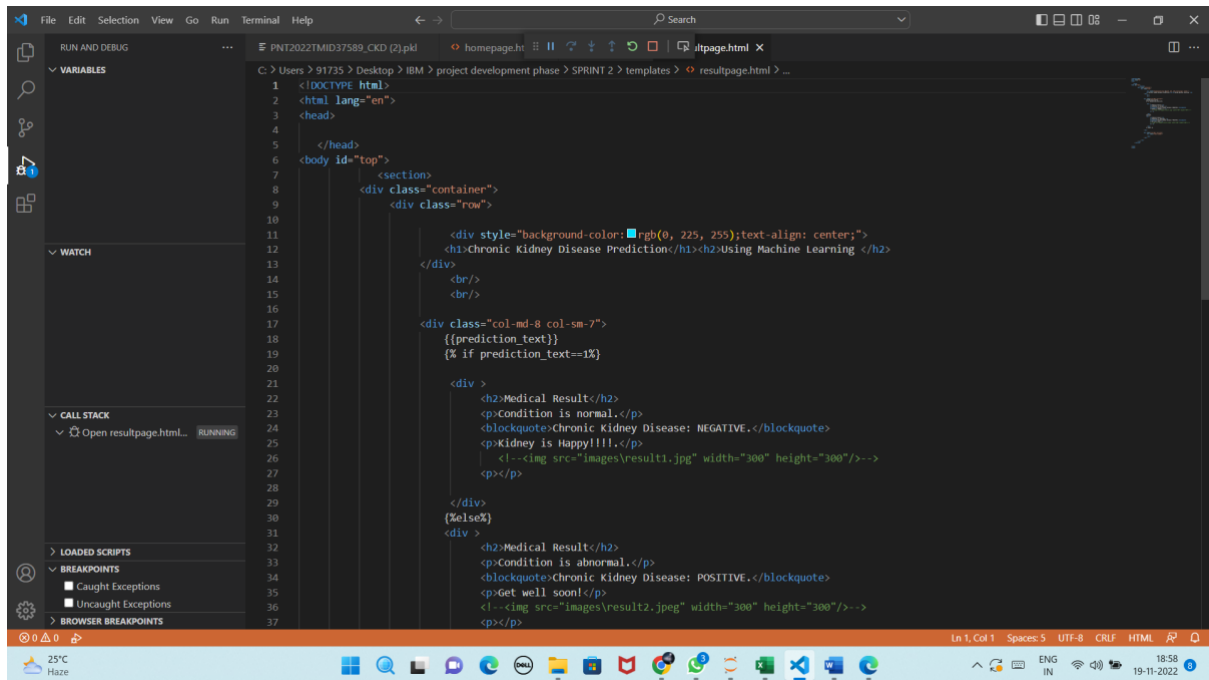
```
38                         <option value="no">no</option>
39                     </select>
40
41                 <div class="col-md-6 col-sm-6">
42                     <label for="select">Select Coronary Artery Disease</label>
43                     <select name="coronary_artery_disease">
44                         <option value="yes">yes</option>
45                         <option value="no">no</option>
46                     </select>
47                 </div>
48
49                 <div class="col-md-6 col-sm-6">
50                     <label for="select">Select Pus Cell</label>
51                     <select name="pus_cell">
52                         <option value="yes">yes</option>
53                         <option value="no">no</option>
54                     </select>
55                 </div>
56
57                 <div class="col-md-6 col-sm-6">
58                     <label for="select">Select Red Blood Cell</label>
59                     <select name="red_blood_cell">
60                         <option value="yes">yes</option>
61                         <option value="no">no</option>
62                     </select>
63                 </div>
64
65                 <div class="col-md-6 col-sm-6">
66                     <label for="select">Select Diabetics Mellitus</label>
67                     <select name="diabetics_mellitus">
68                         <option value="yes">yes</option>
69                         <option value="no">no</option>
70                     </select>
71                 </div>
72             </div>
```



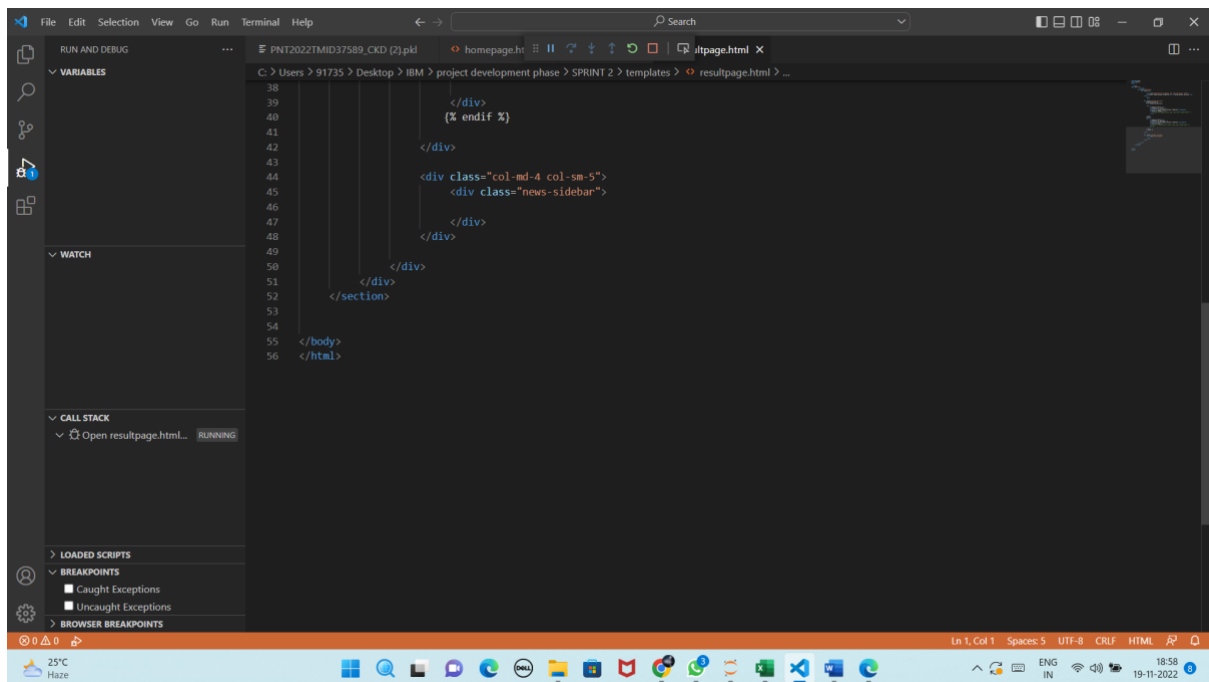
## OUTPUT PAGE



# HTML RESULT PAGE

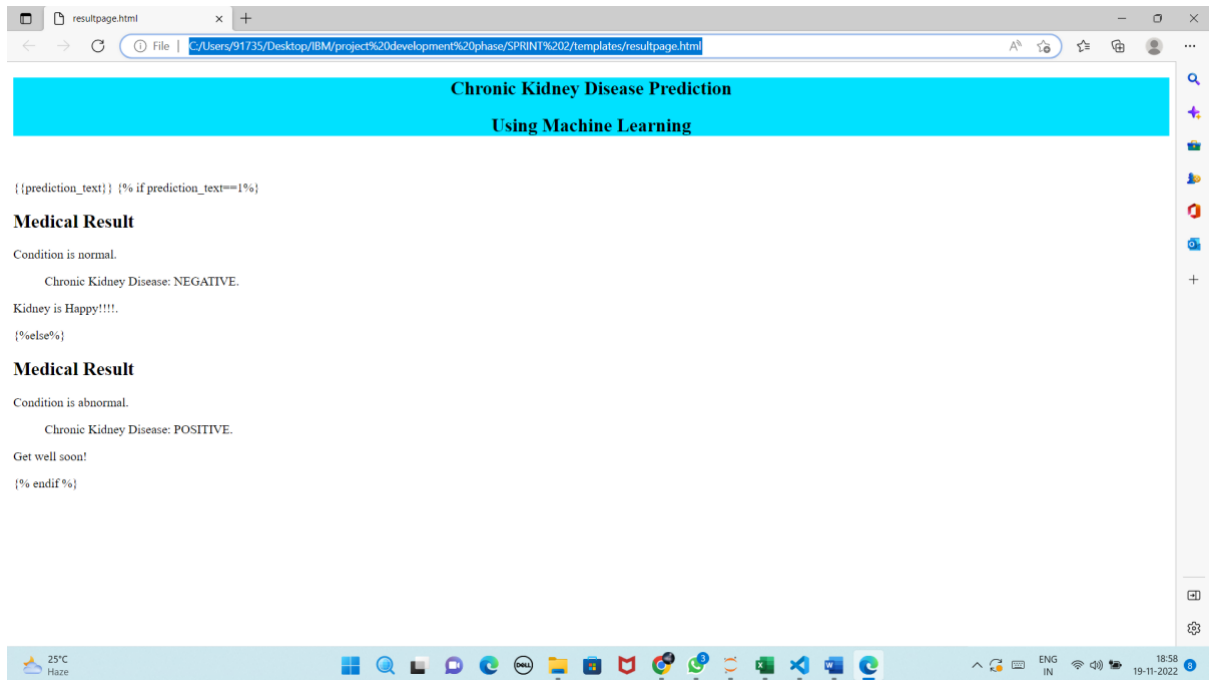


```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4
5 </head>
6 <body id="top">
7
8 <section>
9 <div class="container">
10 <div class="row">
11
12 <div style="background-color: #000080; color: white; padding: 10px; text-align: center;">
13 <h1>Chronic Kidney Disease Prediction</h1><h2>Using Machine Learning</h2>
14 </div>
15 <br/>
16 <br/>
17 <div class="col-md-8 col-sm-7">
18 {{prediction_text}}
19 {% if prediction_text==1%}
20
21 <div>
22 <h2>Medical Result</h2>
23 <p>Condition is normal.</p>
24 <blockquote>Chronic Kidney Disease: NEGATIVE.</blockquote>
25 <p>Kidney is Happy!!!!</p>
26 <!---->
27 <p></p>
28 </div>
29 <!--else%}
30 <div>
31 <h2>Medical Result</h2>
32 <p>Condition is abnormal.</p>
33 <blockquote>Chronic Kidney Disease: POSITIVE.</blockquote>
34 <p>Get well soon!</p>
35 <!---->
36 <p></p>
37 </div>
38 </div>
39 </div>
40 </div>
41 </section>
42 </body>
43 </html>
```



```
38 </div>
39 </div>
40 </div>
41 </section>
42 </body>
43 </html>
```

# OUTPUT PAGE





# TEST CASE:1

Chronic Kidney Disease prediction: x +

File | C:/Users/91735/Desktop/IBM/project%20development%20phase/SPRINT%202/templates/index.html

**Chronic Kidney Disease Prediction**  
**Using Machine Learning**

Blood Urea   
Blood Glucose Random   
Select Anemia   
Select Coronary Artery Disease   
Select Pus Cell   
Select Red Blood Cell   
Select Diabetics Mellitus   
Select Pedal Edema

25°C  
Haze

RESULT PAGE.html x +

File | C:/Users/91735/Desktop/IBM/project%20development%20phase/SPRINT%202/templates/RESULT%20PAGE.html

**Chronic Kidney Disease Prediction**  
**Using Machine Learning**

**Medical Result**

Condition is abnormal.

Chronic Kidney Disease: POSITIVE.

Get well soon!

25°C  
Haze

# TEST CASE:2

Chronic Kidney Disease Prediction  
Using Machine Learning

Blood Urea   
Blood Glucose Random   
Select Anemia   
Select Coronary Artery Disease   
Select Pus Cell   
Select Red Blood Cell   
Select Diabetes Mellitus   
Select Pedal Edema

RESULT PAGE.html

Chronic Kidney Disease Prediction  
Using Machine Learning

**Medical Result**

Condition is normal.  
Chronic Kidney Disease: NEGATIVE.  
Kidney is Happy!!!!.