

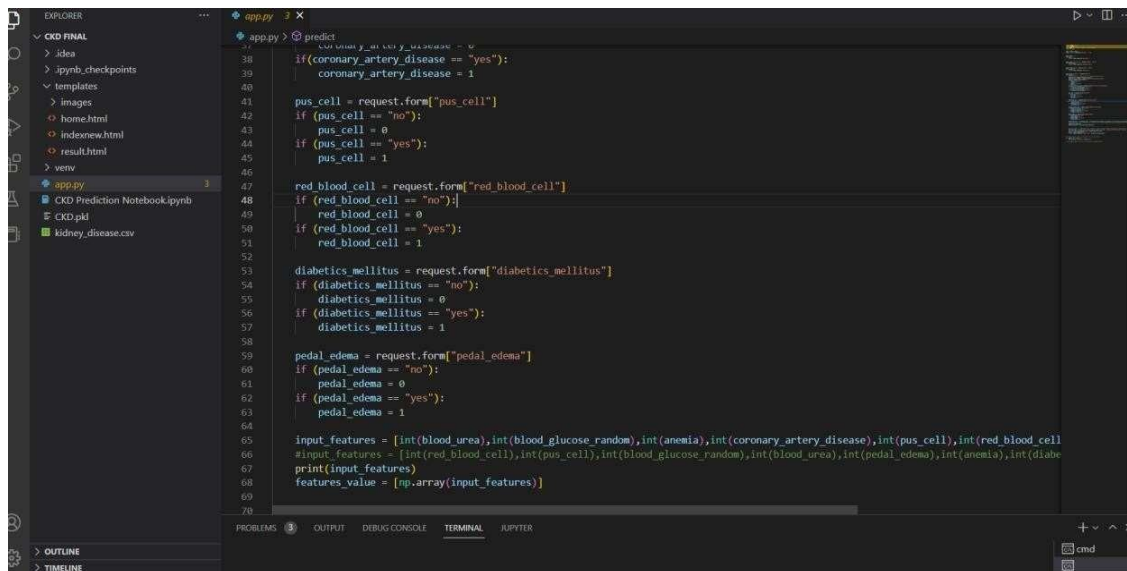
PNT2022TMID25581 DATE: 14.11.2022

EARLY DETECTION OF CHRONIC KIDNEY DISEASE

SPRINT 3

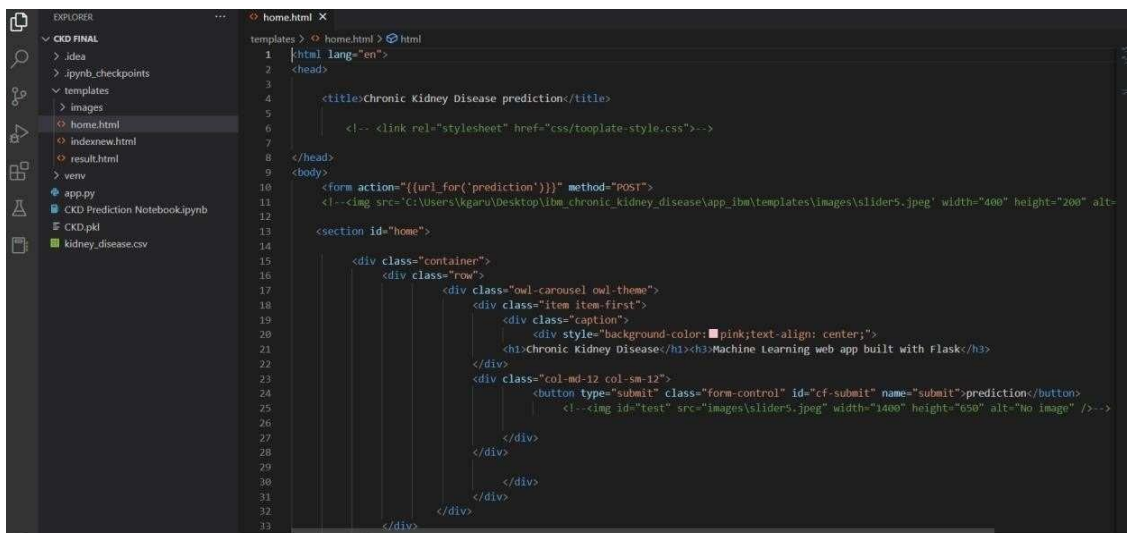
In this sprint we are doing local deployment

App.py code screen



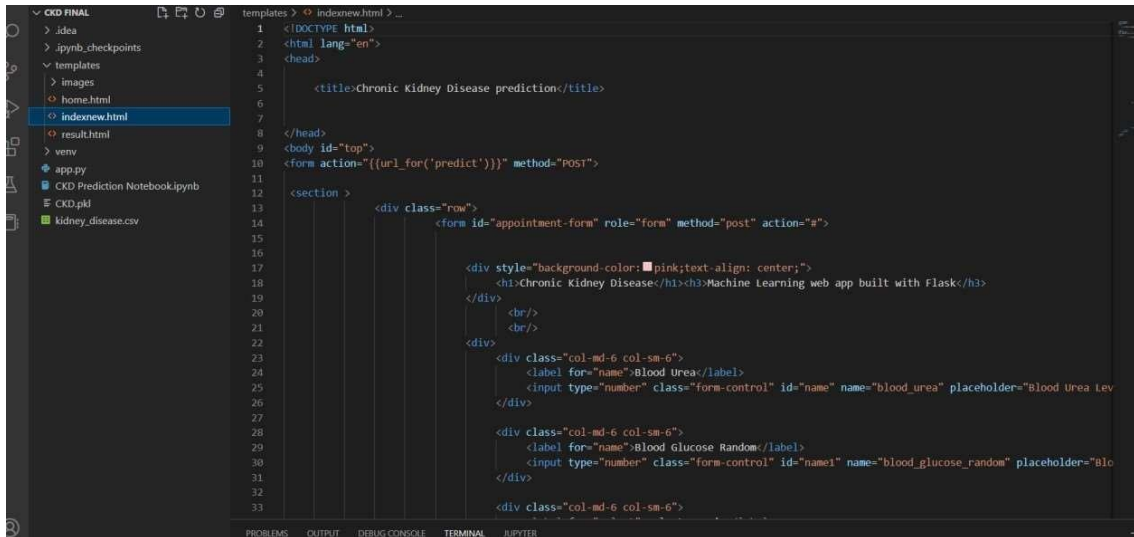
```
38 if(coronary_artery_disease == "yes"):
39     coronary_artery_disease = 1
40
41 pus_cell = request.form["pus_cell"]
42 if (pus_cell == "no"):
43     pus_cell = 0
44 if (pus_cell == "yes"):
45     pus_cell = 1
46
47 red_blood_cell = request.form["red_blood_cell"]
48 if (red_blood_cell == "no"):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

HOME.HTML CODE SCREEN



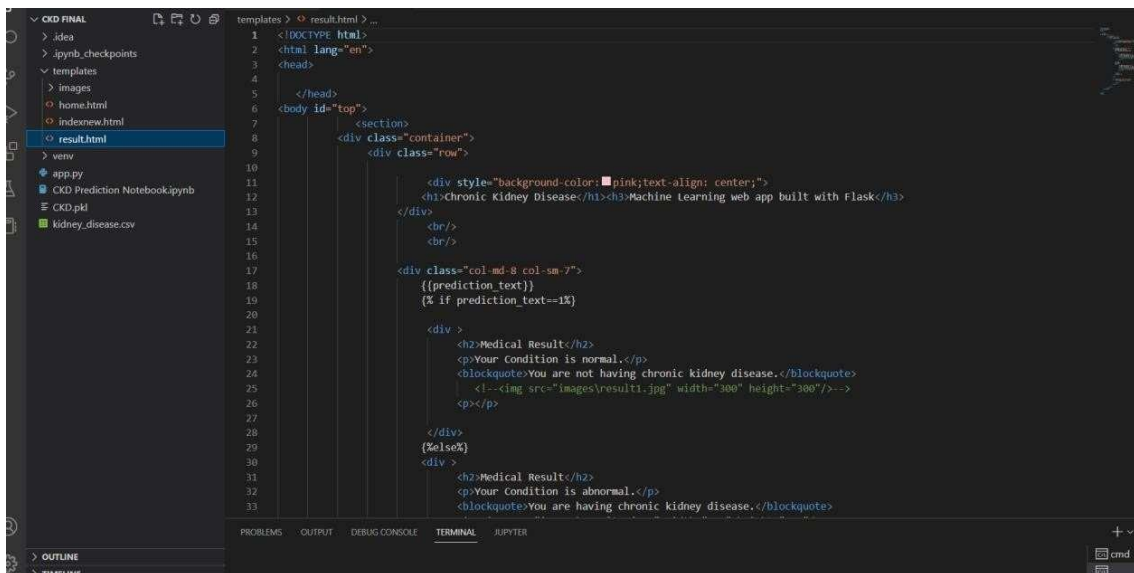
```
1 <html lang="en">
2 <head>
3
4 <title>Chronic Kidney Disease prediction</title>
5
6 <!-- <link rel="stylesheet" href="css/tooplate-style.css"-->
7
8 </head>
9 <body>
10
11 <form action="{url_for('prediction')}}" method="POST">
12 <!--<img src='C:\Users\kgaru\Desktop\libm_chronic_kidney_disease\app\ibm\templates\images\slider5.jpeg' width="400" height="200" alt=
13 <section id="home">
14
15 <div class="container">
16 <div class="row">
17 <div class="owl-carousel owl-theme">
18 <div class="item item-first">
19 <div class="caption">
20 <div style="background-color: #pink;text-align: center;">
21 <h1>Chronic Kidney Disease</h1><h3>Machine Learning web app built with Flask</h3>
22 </div>
23 <div class="col-md-12 col-sm-12">
24 <button type="submit" class="form-control" id="cf-submit" name="submit">prediction</button>
25 <!---->
26 </div>
27 </div>
28 </div>
29
30 </div>
31
32 </div>
33
```

INDEXNEW.HTML CODE SCREEN



```
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             <div class="col-md-6 col-sm-6">
16
17                 <div style="background-color: #pink; text-align: center;">
18                     <h1>Chronic Kidney Disease</h1><h3>Machine Learning web app built with Flask</h3>
19                 </div>
20                 <br/>
21                 <br/>
22                 <div>
23                     <div class="col-md-6 col-sm-6">
24                         <label for="name">Blood Urea</label>
25                         <input type="number" class="form-control" id="name" name="blood_urea" placeholder="Blood Urea Lev">
26                     </div>
27                     <div class="col-md-6 col-sm-6">
28                         <label for="name">Blood Glucose Random</label>
29                         <input type="number" class="form-control" id="name1" name="blood_glucose_random" placeholder="Blo">
30                     </div>
31                 </div>
32             </div>
33         </div>
```

RESULT.HTML CODE SCREEN



```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4
5 </head>
6 <body id="top">
7     <section>
8         <div class="container">
9             <div class="row">
10
11                 <div style="background-color: #pink; text-align: center;">
12                     <h1>Chronic Kidney Disease</h1><h3>Machine Learning web app built with Flask</h3>
13                 </div>
14                 <br/>
15                 <br/>
16                 <div class="col-md-8 col-sm-7">
17                     {{prediction_text}}
18                     {% if prediction_text==1X%
19
20                     <div>
21                         <h2>Medical Result</h2>
22                         <p>Your Condition is normal.</p>
23                         <blockquote>You are not having chronic kidney disease.</blockquote>
24                         <!---->
25                         <p></p>
26                     </div>
27                     {%else%
28
29                     <div>
30                         <h2>Medical Result</h2>
31                         <p>Your Condition is abnormal.</p>
32                         <blockquote>You are having chronic kidney disease.</blockquote>
33                     </div>
```

LOCAL DEPLOYMENT CODE SCREEN

```
CKD FINAL
> .idea
> .ipynb_checkpoints
> templates
> images
  home.html
  indexnew.html
  result.html
> venv
  app.py
  CKD Prediction Notebook.ipynb
  CKD.pkl
  kidney_disease.csv

app.py > predict
37
38
39 if(coronary_artery_disease == "yes"):
40     coronary_artery_disease = 1
41
42 pus_cell = request.form["pus_cell"]
43 if (pus_cell == "no"):
44     pus_cell = 0
45 if (pus_cell == "yes"):
46     pus_cell = 1
47
48 red_blood_cell = request.form["red_blood_cell"]
49 if (red_blood_cell == "no"):
50     red_blood_cell = 0
51 if (red_blood_cell == "yes"):
52     red_blood_cell = 1
53
54 diabetics_mellitus = request.form["diabetics_mellitus"]
55 if (diabetics_mellitus == "no"):
56     diabetics_mellitus = 0
57 if (diabetics_mellitus == "yes"):
58     diabetics_mellitus = 1
59
60 pedal_edema = request.form["pedal_edema"]

PROBLEMS 3 OUTPUT DEBUG CONSOLE TERMINAL JUPYTER

ted without feature names
warnings.warn(
127.0.0.1 - - [02/Nov/2022 07:58:52] "POST /predict HTTP/1.1" 200 -

History restored

Microsoft Windows [Version 10.0.19044.2130]
(c) Microsoft Corporation. All rights reserved.

Microsoft Windows [Version 10.0.19044.2130]
(c) Microsoft Corporation. All rights reserved.

C:\Users\kgaru\Desktop\ckd final>c:\users\kgaru\anaconda3\scripts\activate

(base) C:\Users\kgaru\Desktop\ckd final>conda activate deployment

(deployment) C:\Users\kgaru\Desktop\ckd final>
```

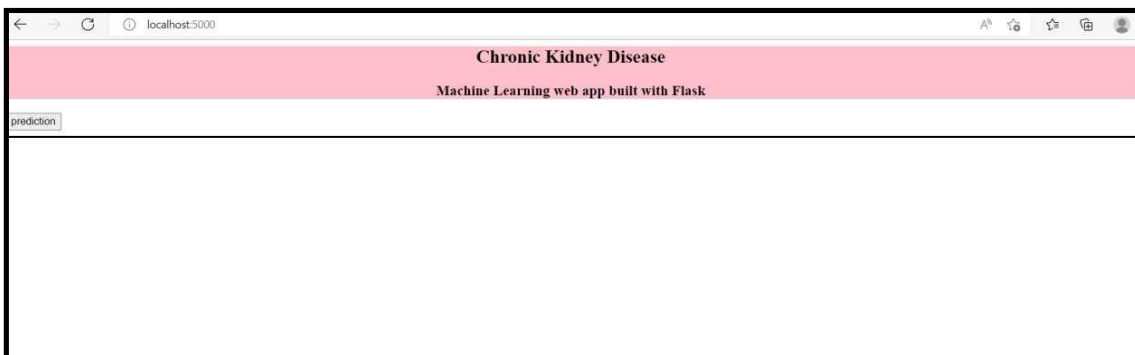
```
Microsoft Windows [Version 10.0.19044.2130]
(c) Microsoft Corporation. All rights reserved.

C:\Users\kgaru\Desktop\ckd final>c:\users\kgaru\anaconda3\scripts\activate

(base) C:\Users\kgaru\Desktop\ckd final>conda activate deployment

(deployment) C:\Users\kgaru\Desktop\ckd final>
```

```
WARNING: This is a development server. Do not use it in a production deployment. Use a production WSGI server instead.
* Running on http://localhost:5000
Press CTRL+C to quit
* Restarting with stat
c:\Users\kgaru\anaconda3\envs\deployment\lib\site-packages\sklearn\base.py:329: UserWarning: Trying to unpickle estimator DecisionTreeClassifier from version 1.0.2 when using version 1.1.2. This might lead to breaking code or invalid results. Use at your own risk. For more info please refer to: https://scikit-learn.org/stable/model_persistence.html#security-maintainability-limitations
warnings.warn(
c:\Users\kgaru\anaconda3\envs\deployment\lib\site-packages\sklearn\base.py:329: UserWarning: Trying to unpickle estimator RandomForestClassifier from version 1.0.2 when using version 1.1.2. This might lead to breaking code or invalid results. Use at your own risk. For more info please refer to: https://scikit-learn.org/stable/model_persistence.html#security-maintainability-limitations
warnings.warn(
* Debugger is active!
* Debugger PIN: 847-133-482
```



TEST CASE 1: CKD

Chronic Kidney Disease

Machine Learning web app built with Flask

prediction

Chronic Kidney Disease

Machine Learning web app built with Flask

Blood Urea 90

Blood Glucose Random 157

Select Anemia no

Select Coronary Artery Disease yes

Select Pus Cell yes

Select Red Blood Cell no

Select Diabetes Mellitus yes

Select Pedal Edema yes

predict

Chronic Kidney Disease

Machine Learning web app built with Flask

[0]

Medical Result

Your Condition is abnormal.

You are having chronic kidney disease.

TEST CASE 2: NO CKD

Chronic Kidney Disease

Machine Learning web app built with Flask

prediction

Chronic Kidney Disease

Machine Learning web app built with Flask

Blood Urea46

Blood Glucose Random117

Select Anemia[no]

Select Coronary Artery Disease[no]

Select Pus Cell[no]

Select Red Blood Cell[no]

Select Diabetes Mellitus[no]

Select Pedal Edema[no]

predict

Chronic Kidney Disease

Machine Learning web app built with Flask

[1]

Medical Result

Your Condition is normal.

You are not having chronic kidney disease.

TEST CASE 3: CKD

Chronic Kidney Disease

Machine Learning web app built with Flask

prediction

Chronic Kidney Disease

Machine Learning web app built with Flask

Blood Urea148

Blood Glucose Random173

Select Anemiayes

Select Coronary Artery Diseaseyes

Select Pus Cellno

Select Red Blood Cellno

Select Diabetes Mellitusyes

Select Pedal Edemayes

predict

Chronic Kidney Disease

Machine Learning web app built with Flask

[0]

Medical Result

Your Condition is abnormal.

You are having chronic kidney disease.

TEST CASE 4: NO CKD

Chronic Kidney Disease

Machine Learning web app built with Flask

prediction

Chronic Kidney Disease

Machine Learning web app built with Flask

Blood Urea24

Blood Glucose Random132

Select Anemia[no]

Select Coronary Artery Disease[no]

Select Pus Cell[no]

Select Red Blood Cell[no]

Select Diabetes Mellitus[no]

Select Pedal Edema[no]

predict

Chronic Kidney Disease

Machine Learning web app built with Flask

[1]

Medical Result

Your Condition is normal.

You are not having chronic kidney disease.

TEST CASE 5: NO CKD

Chronic Kidney Disease

Machine Learning web app built with Flask

prediction

Chronic Kidney Disease

Machine Learning web app built with Flask

Blood Urea129

Blood Glucose Random99

Select Anemia[no]

Select Coronary Artery Disease[no]

Select Pus Cell[no]

Select Red Blood Cell[no]

Select Diabetes Mellitus[no]

Select Pedal Edema[no]

predict

Chronic Kidney Disease

Machine Learning web app built with Flask

[1]

Medical Result

Your Condition is normal.

You are not having chronic kidney disease.