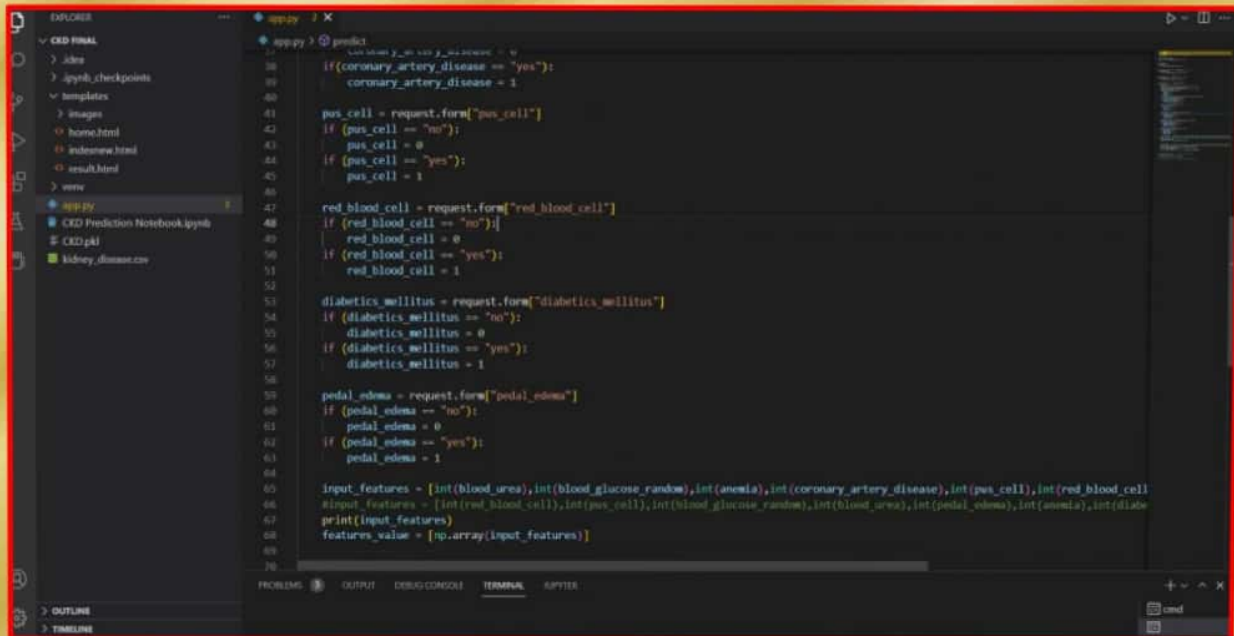


## SPRINT 3

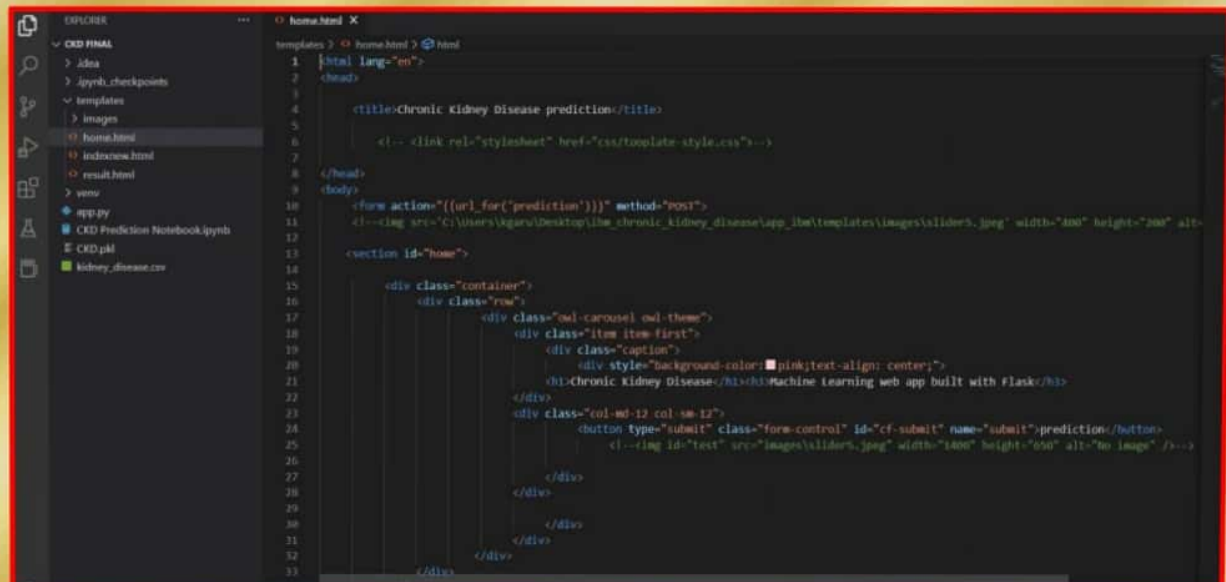
In this sprint we are doing local deployment

### App.py code screen



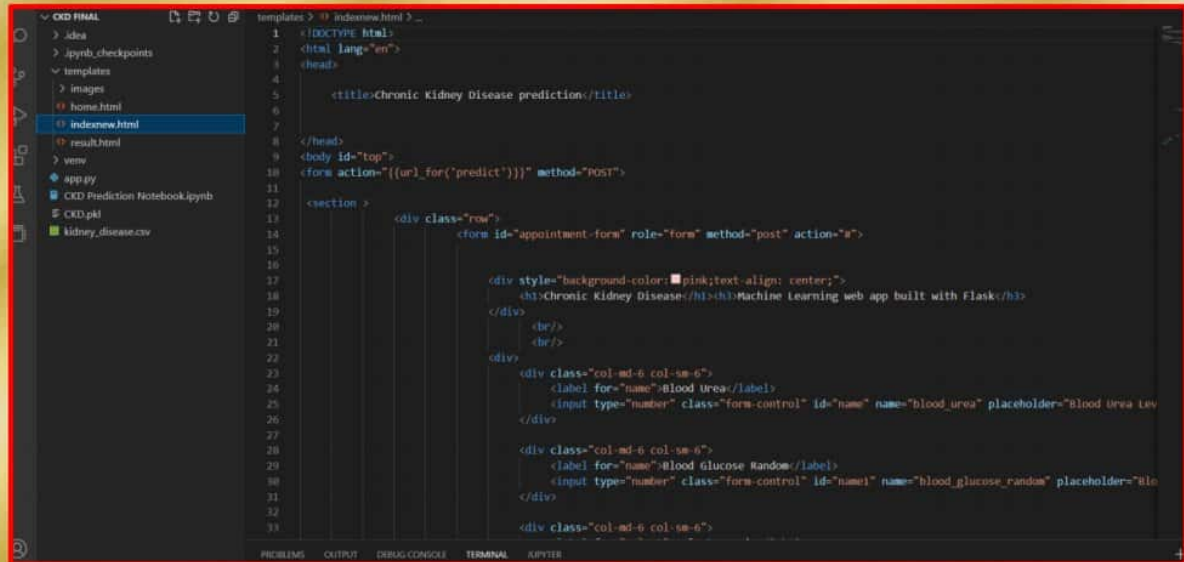
```
17 from flask import Flask, request, jsonify
18
19 app = Flask(__name__)
20
21 @app.route('/predict', methods=['POST'])
22 def predict():
23     if (coronary_artery_disease == "yes"):
24         coronary_artery_disease = 1
25     else:
26         coronary_artery_disease = 0
27
28     pus_cell = request.form["pus_cell"]
29     if (pus_cell == "no"):
30         pus_cell = 0
31     if (pus_cell == "yes"):
32         pus_cell = 1
33
34     red_blood_cell = request.form["red_blood_cell"]
35     if (red_blood_cell == "no"):
36         red_blood_cell = 0
37     if (red_blood_cell == "yes"):
38         red_blood_cell = 1
39
40     diabetes_mellitus = request.form["diabetes_mellitus"]
41     if (diabetes_mellitus == "no"):
42         diabetes_mellitus = 0
43     if (diabetes_mellitus == "yes"):
44         diabetes_mellitus = 1
45
46     pedal_edema = request.form["pedal_edema"]
47     if (pedal_edema == "no"):
48         pedal_edema = 0
49     if (pedal_edema == "yes"):
50         pedal_edema = 1
51
52     input_features = [int(blood_urea), int(blood_glucose_random), int(anaemia), int(coronary_artery_disease), int(pus_cell), int(red_blood_cell),
53                       int(diabetes_mellitus), int(pedal_edema)]
54     input_features = [int(red_blood_cell), int(pus_cell), int(blood_glucose_random), int(blood_urea), int(pedal_edema), int(anaemia), int(diabetes_mellitus)]
55     print(input_features)
56     features_value = np.array(input_features)
57
58     prediction = model.predict(features_value)
59     return jsonify(prediction)
```

### HOME.HTML CODE SCREEN



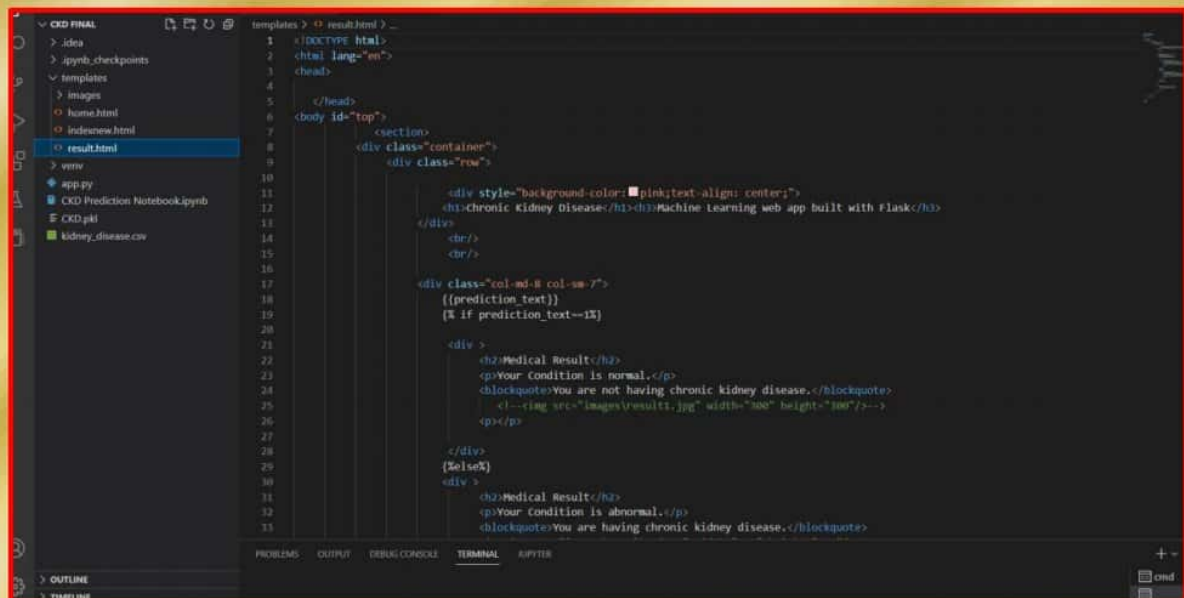
```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4 <title>Chronic Kidney Disease prediction</title>
5
6 <!-- <link rel="stylesheet" href="css/template-style.css"> -->
7
8 </head>
9 <body>
10 <form action="{{url_for('prediction')}}" method="POST">
11 <!---->
12
13 <section id="home">
14
15 <div class="container">
16 <div class="row">
17 <div class="col-md-12 col-sm-12">
18 <div class="owl-carousel owl-theme">
19 <div class="item item-first">
20 <div class="caption">
21 <div style="background-color: #f0f0f0; padding: 5px; text-align: center;>
22 <h3>Chronic Kidney Disease</h3>
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 </div>
33 </div>
```

## INDEXNEW.HTML CODE SCREEN



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

## RESULT.HTML CODE SCREEN



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



## LOCAL DEPLOYMENT CODE SCREEN

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

app.py > predict
38 # Predict the output of the model
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 neda1_edema = request.form["neda1_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>
```

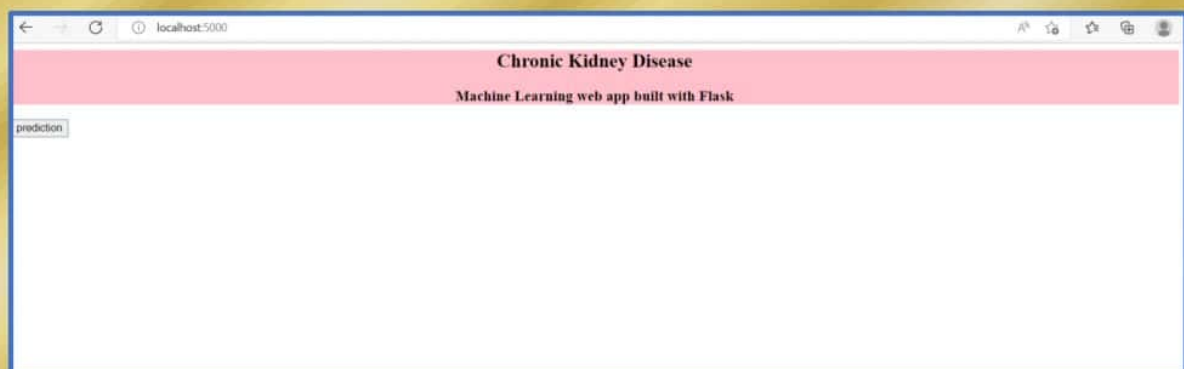
Microsoft Windows [Version 10.0.19044.2130]  
(c) Microsoft Corporation. All rights reserved.

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

Blood Glucose Random

Select Anemia

Select Coronary Artery Disease

Select Pw Cell

Select Rnd Blood Cell

Select Diabetes Mellitus

Select Pedal Edema

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

**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 Urea   
Blood Glucose Random   
Select Anemia   
Select Coronary Artery Disease   
Select Pw Cell   
Select Red Blood Cell   
Select Diabetics Mellitus   
Select Pedal Edema   
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.