

App.py code screen

The screenshot displays a JupyterLab environment with a Python script named `predict.py` open in the main editor. The script is a Flask web application that takes user input via a form and predicts the presence of various conditions based on a set of input features.

File Explorer (Left Sidebar):

- CKD_FINAL
 - __init__.py
 - app.py
 - templates
 - index.html
 - result.html
 - static
 - css
 - images
 - js
- CKD Prediction Notebook.ipynb
- CKD.pkl
- kidney_disease.csv

Main Editor (Code):

```

1 # Import necessary libraries
2 from flask import Flask, request, jsonify
3 from flask import render_template
4 from sklearn.preprocessing import StandardScaler
5 from sklearn.linear_model import LogisticRegression
6
7 # Create a Flask app
8 app = Flask(__name__)
9
10 # Load the trained model and scaler
11 model = LogisticRegression()
12 scaler = StandardScaler()
13
14 # Define the prediction function
15 def predict(features):
16     # Scale the features
17     scaled_features = scaler.transform(features)
18     # Make the prediction
19     prediction = model.predict(scaled_features)
20     return prediction
21
22 # Define the routes
23 @app.route("/")
24 def index():
25     return render_template("index.html")
26
27 @app.route("/predict", methods=["POST"])
28 def predict_route():
29     # Get the input features from the form
30     input_features = request.form.getlist("input_features")
31     # Convert the input features to a list of lists
32     input_features = [input_features]
33     # Make the prediction
34     prediction = predict(input_features)
35     # Return the prediction as a JSON response
36     return jsonify({"prediction": prediction})
37
38 if __name__ == "__main__":
39     app.run(debug=True)

```

Terminal (Bottom):

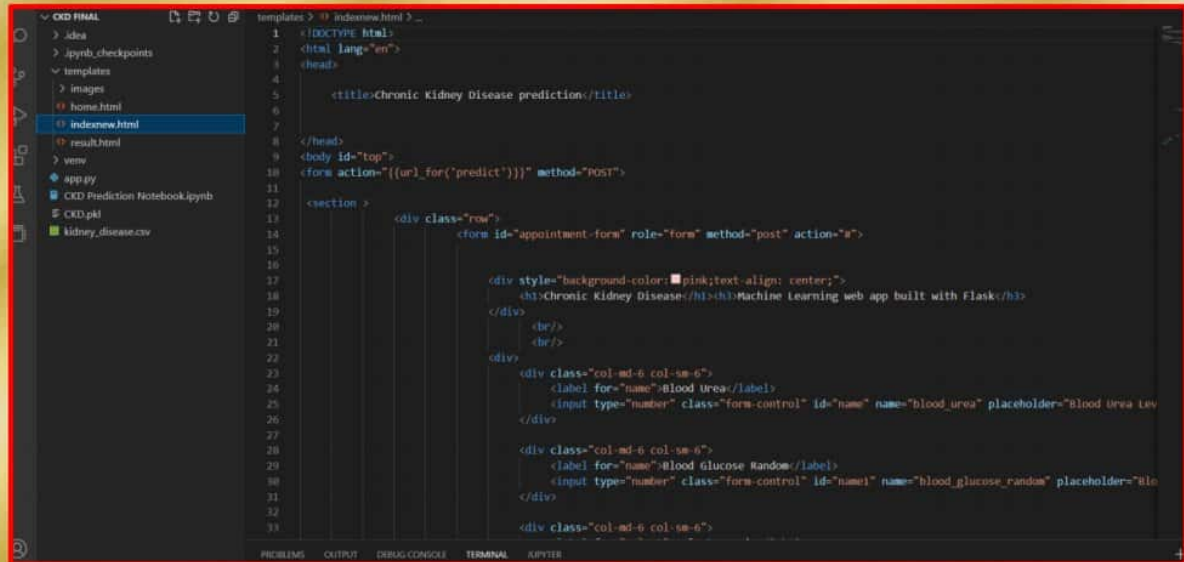
The terminal shows the command `python predict.py` being executed, and the output indicates that the application is running successfully on `http://127.0.0.1:5000/`.

```

1  <html lang="en">
2  <head>
3
4      <title>Chronic Kidney Disease prediction</title>
5
6      <!-- <link rel="stylesheet" href="css/template-style.css">-->
7
8  </head>
9  <body>
10
11      <form action="{{url_for('prediction')}}" method="POST">
12      <!--
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: #pink;text-align: center;">
22                                  <h1>Chronic Kidney Disease</h1><h3>Machine learning web app built with Flask</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>

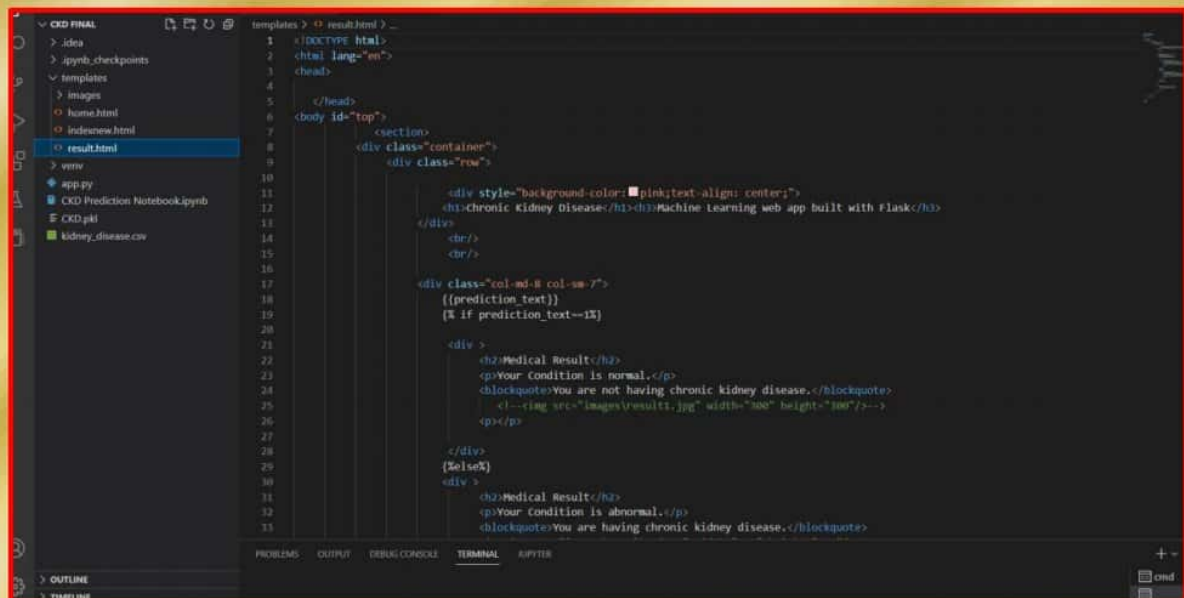
```

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 <form id="appointment-form" role="form" method="post" action="a">
17
18 <div style="background-color: #pink; text-align: center;">
19 <h1>Chronic Kidney Disease</h1><h1>Machine Learning web app built with Flask</h1>
20 </div>
21 </div>
22 <div class="col-md-6 col-sm-6">
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
28 <div class="col-md-6 col-sm-6">
29 <label for="name">Blood Glucose Random</label>
30 <input type="number" class="form-control" id="name1" name="blood_glucose_random" placeholder="Blo">
31 </div>
32
33 <div class="col-md-6 col-sm-6">
```

RESULT.HTML CODE SCREEN



```
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: #pink; text-align: center;">
13 <h1>Chronic Kidney Disease</h1><h1>Machine Learning web app built with Flask</h1>
14 </div>
15 </div>
16 </div>
17
18 <div class="col-md-8 col-sm-7">
19 {{prediction_text}}
20 [X if prediction_text==1X]
21
22 <div>
23 <h2>Medical Result</h2>
24 <p>Your Condition is normal.</p>
25 <blockquote>You are not having chronic kidney disease.</blockquote>
26 
27 <p></p>
28 </div>
29 [XelseX]
30 <div>
31 <h2>Medical Result</h2>
32 <p>Your Condition is abnormal.</p>
33 <blockquote>You are having chronic kidney disease.</blockquote>
```


LOCAL DEPLOYMENT CODE SCREEN

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

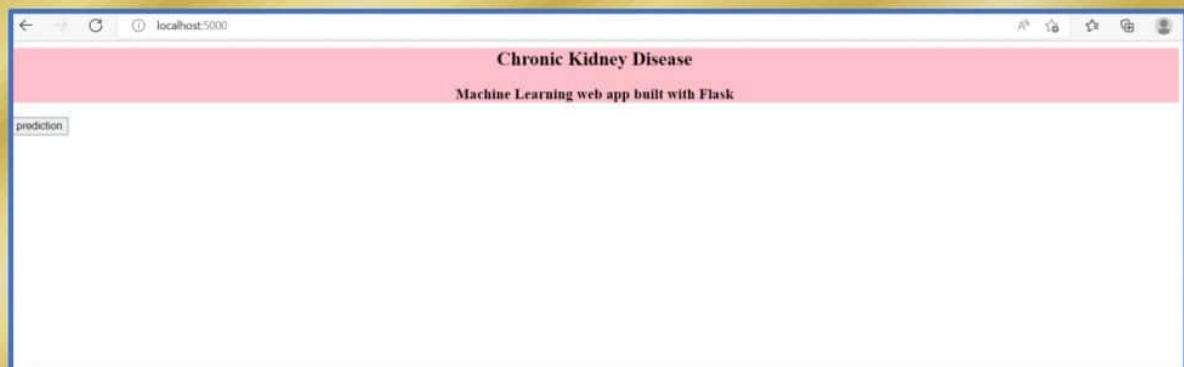
Microsoft Windows [Version 10.0.19044.2130]
(c) Microsoft Corporation. All rights reserved.

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

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

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

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.