

Date	18-11-2022
Team ID	PNT2022TMID06599
Project Name	Efficient Water Quality Analysis and Prediction Using Machine Learning
Maximum Marks	8 Marks

HOME:

```

<!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">
<link rel="stylesheet" href="menu.css">
<title>Product Landing Page</title>
</head>
<body>
<nav>
<div class="logo">Brand</div>
<!-- toggle menu button -->
<span class="menubtn" onclick="openNav()">&#9776;</span>

<div class="navLinks">
<ul>
<li><a href="#">Home</a></li>
<li><a href="#">About</a></li>

<li><a href="#">Services</a></li>
<li><a href="#">Contact</a></li>
<button type="button">Login</button>
</ul>
</div>
</nav>
<!-- responsive side navbar -->
<div class="sideNav" id="sidenav">
<a href="#" class="closeBtn" onclick="closeNav()"> &#10006;</a>
<a href="#">Home</a>
<a href="#">About</a>
<a href="#">Services</a>
<a href="#">Contact</a>
<a href="#"><button type="button">Login</button> </a>

```

</div>

<!-- Header content with banner image -->

<div class="row">

<div class="column1">

<h1>Responsive Design</h1>

<p>Contact us for responsive web design to grow your business!</p>

<button>PURCHASE</button>

</div>

<div class="column2">

</div>

</div>

<!-- javascript to make side menu appear -->

<script>

function openNav() {

document.getElementById("sidenav").style.width = "50%";

}

function closeNav() {

document.getElementById("sidenav").style.width = "0%";

}

</script>

</body>

</html>

LOGIN:

<!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">

<link rel="stylesheet" href="menu.css">

<title>Product Landing Page</title>

</head>

<body>

<nav>

<div class="logo">Brand</div>

<!-- toggle menu button -->

```
<span class="menubtn" onclick="openNav()">&#9776;</span>
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<div class="navLinks">
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```
<ul>
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<li><a href="#">Home</a></li>
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<li><a href="#">About</a></li>
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<li><a href="#">Services</a></li>
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```
<li><a href="#">Contact</a></li>
```

```
<button type="button">Login</button>
```

```
</ul>
```

```
</div>
```

```
</nav>
```

```
<!-- responsive side navbar -->
```

```
<div class="sideNav" id="sidenav">
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```
<a href="#" class="closeBtn" onclick="closeNav()"> &#10006;</a>
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<a href="#">Home</a>
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<a href="#">About</a>
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<a href="#">Services</a>
```

```
<a href="#">Contact</a>
```

```
<a href="#"><button type="button">Login</button> </a>
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```
</div>
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<!-- Header content with banner image -->
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<div class="row">
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<div class="column1">
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<h1>Responsive Design</h1>
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```
<p>Contact us for responsive web design to grow your business!</p>
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<button>PURCHASE</button>
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</div>
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<div class="column2">
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```
</div>
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</div>
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```
<!-- javascript to make side menu appear -->
```

```
<script>
```

```
function openNav() {
```

```
document.getElementById("sidenav").style.width = "50%";
```

```
}
```

```

function closeNav() {
document.getElementById("sidenav").style.width = "0%";
}
</script>
</body>
</html>

```

REGISTOR:

```

<!DOCTYPE html>
<html>
<head>
<title>Water Quality Prediction</title>
<meta charset="UTF-8" />
<meta name="keywords"
content="Login Form" />
<link
href="//fonts.googleapis.com/css2?family=Poppins:wght@300;400;500;6
00&display=swap"
rel="stylesheet">
<script src="https://kit.fontawesome.com/af562a2a63.js"
crossorigin="anonymous"></script>
<link type="text/css" rel="stylesheet" href="{{ url_for('static',
filename='css/style1.css')
}}" />
</head>

<body>

<!-- form section start -->
<section class="w3l-mockup-form">
<div class="container">
<!-- /form -->
<div class="workinghny-form-grid">
<div class="main-mockup">
<div class="alert-close">
<span class="fa fa-close"></span>
</div>
<div class="w3l_form align-self">
<div class="left_grid_info">

</div>
</div>
<div class="content-wthree">

```

<h2>Register Now</h2>

<p></p>

<form action="/add_user" method="post">

<input type="text" class="name" name="name" required
placeholder="Name">

<input type="email" class="email" name="email" required
placeholder="Email">

<input type="password" class="password" name="password" required
placeholder="Password">

<button name="submit" class="btn" type="submit">Register</button>
</form>

<div class="social-icons">

<p>Have an account! Login.</p>

</div>

</div>

</div>

</div>

<!-- //form -->

</div>

</section>

<!-- //form section start -->

<script>

```
$(document).ready(function (c) {  
  $('.alert-close').on('click', function (c) {  
    $('.main-mockup').fadeOut('slow', function (c) {  
      $('.main-mockup').remove();  
    });  
  });  
});
```

</script>

</body>

</html>

INDEX:

<html>

<title>Water Quality Analysis</title>

<body>

<h1>Water Quality Prediction</h1>

</div>

</div>

```

<div class="col-md-7 col-md-offset-1">
<div class="booking-form">
<form action={{ url_for("predict") }} method="post">
<div class="row">
<div class="col-md-4">
<div class="form-group">
<span class="form-label">D.O. (mg/l)</span>
<input type="text" class="form-control" name="ph" placeholder="Enter
value" required="true">
<span class="select-arrow"></span>
</div>
<br>
<br>
</div>
<!Year>
<div class="col-md-4">
<div class="form-group">
<span class="form-label">CONDUCTIVITY (µmhos/cm) </span>
<input type="text" class="form-control" name="Hardness"
placeholder="Enter value" required="true">
<span class="select-arrow"></span>
</div>
</div>
<br>
<br>
<!Month>
<div class="col-md-4">
<div class="form-group">
<span class="form-label">B.O.D. (mg/l)</span>
<input type="text" class="form-control" name="Solids"
placeholder="Enter value" required="true">
<span class="select-arrow"></span>
</div>
</div>
<br>
<br>
<! Date>
</div>
<div class="row">
<div class="col-md-4">
<div class="form-group">
<span class="form-label">NITRATENAN N+ NITRITENANN
(mg/l)</span>

```

```

<input type="text" class="form-control" name="Chloramines"
placeholder="Enter value" required="true">
<span class="select-arrow"></span>
</div>
</div>
<br>
<br>
<!Year>
<div class="col-md-4">
<div class="form-group">
<span class="form-label">FECAL COLIFORM (MPN/100ml)</span>
<input type="text" class="form-control" name="Sulfate"
placeholder="Enter value" required="true">
<span class="select-arrow"></span>
</div>
</div>
<br>
<br>
<!Month>
<div class="col-md-4">
<div class="form-group">
<span class="form-label">TOTAL COLIFORM
(MPN/100ml)Mean</span>
<input type="text" class="form-control" name="Conductivity"
placeholder="Enter value" required="true">
<span class="select-arrow"></span>
</div>
</div>
<br>
<br>
<!--Year,Month,Date end-->
<div class="form-btn">
<button class="submit-btn">Predict</button>
</div>
<!--
<!Button>
{% if prediction_text == 0 %}
<h2>" Not Potable, the water can't be drink "</h2>
{% elif prediction_text == 1 %}
<h2>" Potable, the water can be drink "</h2>
{% endif %}
</center>
</form>

```

```

</div>
<!Booking form>
-->
</div>
</div>
</div>
</div>
</div>
</p>
</body>
</html>

```

App.py

pip install flask

```

from flask import Flask, render_template, request
import requests
import requests
# NOTE: you must manually set API_KEY below using information
retrieved from your IBM Cloud account.
import requests
# NOTE: you must manually set API_KEY below using information
retrieved from your IBM Cloud account.
API_KEY =
"nFFWACn7pVNTQWlnb7pusoXVa63g0vFEq_8Y2x2pxZSE"
token_response = requests.post('https://iam.cloud.ibm.com/identity/token',
data={"apikey":
API_KEY, "grant_type": 'urn:ibm:params:oauth:grant-type:apikey'})
mltoken = token_response.json()["access_token"]
header = {'Content-Type': 'application/json', 'Authorization': 'Bearer ' +
mltoken}
app = Flask(__name__)
@app.route("/")
def index():
return render_template('water1.html')
@app.route('/predict', methods = ['POST'])
def predict():
ph = request.form['D.O. (mg/l)']
Hardness = request.form['CONDUCTIVITY (µmhos/cm)']
Solids = request.form['B.O.D. (mg/l)']
Chloramines = request.form['NITRATENAN N+ NITRITENANN
(mg/l)']

```



```

Sulfate = request.form['FECAL COLIFORM (MPN/100ml)']
Conductivity = request.form['TOTAL COLIFORM (MPN/100ml)Mean']
t = [[float(D.O. (mg/l)),float(CONDUCTIVITY (µmhos/cm)),int(B.O.D.
(mg/l)),float(NITRATENAN N+ NITRITENANN (mg/l)),float(FECAL
COLIFORM (MPN/100ml)),float(TOTAL COLIFORM
(MPN/100ml)Mean)]]
payload_scoring = {"input_data": [{"fields":
[["f0", "f1", "f2", "f3", "f4", "f5", "f6", "f7", "f8", "f9", "f10", "f11", "f12", "f13",
"f14"]], "values":t }]}
response_scoring = requests.post("https://us-
south.ml.cloud.ibm.com/ml/v4/deployments/94d69d4c-4e12-4662-aba9-
fe193faa3d90/predictions?version=2022-11-07", json=payload_scoring,
headers={'Authorization': 'Bearer ' + mltoken})
print("Scoring response")
payload_scoring = {"input_data": [{"fields":
[["f0", "f1", "f2", "f3", "f4", "f5", "f6"]], "values":t }]}
pred= response_scoring.json()
output=pred['predictions'][0]['values'][0][0]
print(output)
return render_template("water1.html", prediction_text = output)
if __name__ == '__main__':
app.run(debug = False)

```