

FINAL CODE

STATICS:

Style.css:

```
body {  
    font-family: 'Lato', sans-serif;  
    overflow: hidden;  
    overflow-y: scroll;  
    background-color: #9E9E9E ;  
}  
  
body .bg-img {  
    background-repeat: no-repeat;  
    background-position: center;  
    padding-bottom: 100px;  
}  
  
body nav {  
    background: rgba(255, 255, 255, 0.1);  
}  
  
body nav .navbar-nav a {  
    font-size: 16px;  
    text-transform: uppercase;  
    color: #ff8013 !important;  
    transition: all 0.3s;  
    -webkit-transition: all 0.3s;  
    -ms-transition: all 0.3s;  
    -o-transition: all 0.3s;  
}  
  
body nav .navbar-nav a:hover {  
    color: #fff !important;  
}  
  
body nav .navbar-nav .btn-danger {
```

```
background: #fffff;  
border-color: #fffff;  
border-radius: 0;  
}  
  
body nav .navbar-nav .btn-danger:hover {  
background: #df6700;  
border-color: #df6700;  
}  
  
a, a:hover {  
color: #ff8013;  
}  
  
.fh5co-banner-text-box {  
position: relative;  
max-height: 120px;  
display: inline-block;  
margin-top: 250px;  
}  
  
.fh5co-banner-text-box .quote-box {  
max-width: 455px;  
padding: 20px 0;  
}  
  
.fh5co-banner-text-box .quote-box h2 {  
font-family: 'Lato', sans-serif;  
font-weight: 700;  
color: #008f40;  
font-size: 40px;  
}  
  
.fh5co-banner-text-box .quote-box h2 span {
```

```
color: #f89524;
font-size: 34px;
}
.fh5co-banner-text-box .quote-box::before {
  content: "";
  position: absolute;
  height: 38px;
  width: 38px;
  left: 0;
  top: 0;
  background: url("../images/right-quote.png");
  background-repeat: no-repeat;
}
.fh5co-banner-text-box .quote-box::after {
  content: "";
  position: absolute;
  height: 38px;
  width: 38px;
  background: url("../images/left-quote.png");
  background-repeat: no-repeat;
  right: 0;
  bottom: 0;
}
.fh5co-banner-text-box a {
  color: #f89524;
  border-color: #008f40;
  border-radius: 0;
  min-width: 150px;
}
.fh5co-banner-text-box a:hover {
```

```
background: transparent;

border-color: gray;

color: #008f40;

}
```

```
.fh5co-network, .fh5co-about-us {

background: url("/images/about-bg1.jpg");

background-repeat: no-repeat;

background-position: center;

background-size: 100% 100%;

padding: 50px 0;

padding-top: 30px;

}
```

```
.fh5co-network figure, .fh5co-about-us figure {

margin-top: -70px !important;

}
```

```
.fh5co-network h2, .fh5co-about-us h2 {

color: #ff8013;

font-family: 'Lato', sans-serif;

font-weight: 700;

font-size: 40px;

margin-bottom: 0;

}
```

```
.fh5co-network h4, .fh5co-about-us h4, .fh5co-network h5, .fh5co-about-us h5, .fh5co-network p, .fh5co-about-us p {

color: #282828;

font-family: 'Lato', sans-serif;

font-weight: 700;

}
```

```
.fh5co-network hr, .fh5co-about-us hr {

border-color: #ff8013;
```

```
border-width: 5px;
max-width: 100px;
margin-left: 0;
border-radius: 5px;
}

.fh5co-network figure, .fh5co-about-us figure {
  text-align: center;
}

.fh5co-about-us {
  background: transparent;
  background-repeat: no-repeat;
  background-size: contain;
  background-position: center;
}

.fh5co-about-us p {
  color: #fff;
  font-family: 'Lato', sans-serif;
  font-weight: normal;
}

.fh5co-about-us hr {
  border-color: #fff;
  margin-left: 50px;
  margin-top: 5px;
}

.fh5co-about-us a {
  color: #fff !important;
  border-color: #4e2b0d;
  border-radius: 0;
  min-width: 150px;
```

```
}  
  
.fh5co-about-us a:hover {  
  background: transparent;  
  border-color: gray;  
  color: #ff8013;  
}  
  
.fh5co-content-box {  
  background: #464646;  
  padding-bottom: 100px;  
}  
  
.fh5co-content-box .pr-0 img {  
  margin-top: -128px;  
}  
  
.fh5co-content-box img {  
  width: 100%;  
}  
  
.fh5co-content-box .card-img-overlay {  
  color: #fff;  
  text-align: center;  
  top: 35%;  
}  
  
.fh5co-content-box .trainers {  
  position: relative;  
  padding: 50px 0;  
  margin: 70px 0;  
  background: url("../images/gym2.jpg");  
  background-repeat: no-repeat;  
  background-position: center;  
  background-color: #000;
```

```

}

.fh5co-content-box .trainers .bg-50 {
  background: rgba(0, 0, 0, 0.3);
}

.fh5co-content-box .trainers .card {
  border: none;
  background: transparent;
}

.fh5co-content-box .trainers .card img {
  max-width: 250px;
  margin: 0 auto;
  max-height: 250px;
}

.fh5co-content-box .trainers .card .card-body {
  background: #ccc;
  border-radius: 15px;
  padding: 30px 20px;
  margin-top: 30px;
  padding-bottom: 50px;
}

.fh5co-content-box .trainers .card .card-body::before {
  content: "";
  position: absolute;
  border: 20px solid #ccc;
  border-color: transparent transparent #ccc transparent;
  margin-top: -70px;
  text-align: center;
  margin-left: -15px;
}

.fh5co-content-box .trainers .quote-box2 {

```

```
color: #fff;
max-width: 250px;
position: relative;
text-align: center;
margin: auto;
margin-bottom: 50px;
}

.fh5co-content-box .trainers .quote-box2::before {
  content: "";
  position: absolute;
  height: 20px;
  width: 20px;
  left: 0;
  top: -10px;
  background: url("../images/right-quote-white.png");
  background-repeat: no-repeat;
  background-size: 100% 100%;
}

.fh5co-content-box .trainers .quote-box2::after {
  content: "";
  position: absolute;
  height: 20px;
  width: 20px;
  background: url("../images/left-quote-white.png");
  background-repeat: no-repeat;
  right: 0;
  bottom: -10px;
  background-size: 100% 100%;
}

.fh5co-content-box .trainers::before, .fh5co-content-box .trainers::after {
```



```

content: "";
position: absolute;
border: 5px solid #ff8013;
width: 100%;
top: -10px;
}

.fh5co-content-box .trainers::before {
  bottom: -10px;
  top: auto;
}

.fh5co-content-box .gallery .card {
  border: none;
  background: transparent;
}

.fh5co-content-box .gallery .card img {
  border-radius: 0;
  max-height: 580px;
}

.fh5co-content-box .gallery .card .card-body {
  background: #ff8013;
}

.fh5co-content-box .gallery .card .card-body h4 {
  color: #fff;
}

.fh5co-content-box .gallery .card .card-body p {
  font-family: 'Lato', sans-serif;
  font-weight: 700;
}

footer {

```

```
background: #101011;
color: #fff;
}
footer .footer1 p {
margin-top: 30px;
}
footer .footer2 h4 {
color: #ff8013;
font-family: 'Lato', sans-serif;
font-weight: 700;
text-align: center;
margin: 20px auto;
}
footer .footer2 .form-box {
background: #fff;
padding: 20px 30px;
margin-top: -30px;
}
footer .footer2 input[type='text'], footer .footer2 input[type='email'] {
background: transparent;
border-radius: 0;
border: none;
border-bottom: 2px solid #000;
}
footer .footer2 input[type='text']:focus, footer .footer2 input[type='email']:focus {
box-shadow: none;
border-color: #ff8013;
}
footer .footer2 .btn {
min-width: 150px;
```

```
border-radius: 0;
}
footer .footer2 ::-webkit-input-placeholder {
    /* Chrome/Opera/Safari */
    color: #262626;
}
footer .footer2 ::-moz-placeholder {
    /* Firefox 19+ */
    color: #262626;
}
footer .footer2 :-ms-input-placeholder {
    /* IE 10+ */
    color: #262626;
}
footer .footer2 :-moz-placeholder {
    /* Firefox 18- */
    color: #262626;
}
footer .footer3 {
    padding-top: 50px;
}
footer .footer3 a {
    background: #fff;
    border-radius: 50%;
    height: 40px;
    width: 40px;
    padding: 0;
    padding-top: 5px;
}
footer .footer3 a:hover {
```

```

    background: #ff8013;
}
footer .footer3 .nav-item li {
    margin: 0 5px;
}
footer .table td, footer .table th {
    border: none;
}

footer::before {
    content: "";
    position: absolute;
    border: 3px solid #ff8013;
    width: 100%;
    left: 0;
}

@media (max-width: 1199px) {
    .fh5co-content-box .pr-0 img {
        margin-top: -107px;
    }
}

@media (max-width: 991px) {
    .fh5co-content-box .pr-0 img {
        margin-top: -78px;
    }
    .fh5co-content-box .card-img-overlay {
        top: 20%;
    }
}

```

```
@media (max-width: 767px) {
```

```
  body nav .navbar-nav {  
    margin-left: 0 !important;  
    max-width: 50px;  
  }
```

```
.fh5co-network figure, .fh5co-about-us figure {  
  margin-top: 0 !important;  
}
```

```
.fh5co-content-box .pr-0 img {  
  margin: 20px auto;  
}
```

```
.fh5co-content-box .col-md-5 {  
  padding: 0 !important;  
}
```

```
.fh5co-content-box .col-md-7 {  
  padding: 0 !important;  
}
```

```
.gallery .card {  
  margin-bottom: 25px;  
}
```

```
.footer1 {  
  min-height: 150px;  
}
```

```
.footer2 .form-box {  
  margin-top: 0 !important;
```

}

}

IMAGES:



TEMPLATES:

INDEX:

```
<!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">

  <!-- The above 3 meta tags *must* come first in the head; any other head content must
  come *after* these tags -->

  <title>Water Quality Prediction</title>

  <link href="https://fonts.googleapis.com/css?family=Lato:400,700" rel="stylesheet">

  <link type="text/css" rel="stylesheet" href="{{ url_for('static',
filename='css/bootstrap.min.css') }}" />

  <link type="text/css" rel="stylesheet" href="{{ url_for('static', filename='css/style.css') }}"
/>

  <style>

    #booking

    {

    font-family: 'Lato', sans-serif;

    background: url(../static/background.jpg);

    background-size: cover;

    background-position: center;

    color: #2c3b40;

    }

  </style>

  <!---->

  <!-- HTML5 shim and Respond.js for IE8 support of HTML5 elements and media queries
  -->

  <!-- WARNING: Respond.js doesn't work if you view the page via file:// -->
```

```

<!--[if lt IE 9]>

<script
src="https://oss.maxcdn.com/html5shiv/3.7.3/html5shiv.min.js"></script>

<script src="https://oss.maxcdn.com/respond/1.4.2/respond.min.js"></script>

<script src="https://unpkg.com/aos@2.3.1/dist/aos.js"></script>

<!-- ===== GSAP CDN ===== -->

<script src="https://cdnjs.cloudflare.com/ajax/libs/gsap/3.8.0/gsap.min.js"></script>

<!-- ===== SCRIPT.JS ===== -->

<script src="{{url_for('static', filename='script.js' )}}" defer></script>
</head>

<body style="background-color:#00ccff">

<div id="booking" class="section">

<div class="section-center">

<div class="container">

<div class="row">

<div class="col-md-4">

<div class="booking-cta">

<h1>Water Quality Prediction</h1>

<p>Let's Find the potability of the water</p>

</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">ph:</span>

<input type="text" class="form-control" name="ph"
placeholder="Enter value" required="true">

```



```
<span class="select-arrow"></span>

</div>

</div>

<!Year>

<div class="col-md-4">

  <div class="form-group">

    <span class="form-label">Hardness: </span>

    <input type="text" class="form-control" name="Hardness"
placeholder="Enter value" required="true">

    <span class="select-arrow"></span>

  </div>

</div>

<!Month>

<div class="col-md-4">

  <div class="form-group">

    <span class="form-label">Solids:</span>

    <input type="text" class="form-control" name="Solids"
placeholder="Enter value" required="true">

    <span class="select-arrow"></span>

  </div>

</div>

<! Date>

</div>

<div class="row">

  <div class="col-md-4">

    <div class="form-group">

      <span class="form-label">Chloramines:</span>

      <input type="text" class="form-control" name="Chloramines"
placeholder="Enter value" required="true">

      <span class="select-arrow"></span>
```

</div>

</div>

<!--Year-->

<div class="col-md-4">

<div class="form-group">

Sulfate:

<input type="text" class="form-control" name="Sulfate"

placeholder="Enter value" required="true">

</div>

</div>

<!--Month-->

<div class="col-md-4">

<div class="form-group">

Conductivity:

<input type="text" class="form-control" name="Conductivity"

placeholder="Enter value" required="true">

</div>

</div>

<!--Date-->

</div>

<div class="row">

<div class="col-md-4">

<div class="form-group">

Organic_carbon:

<input type="text" class="form-control"

name="Organic_carbon" placeholder="Enter value" required="true">

</div>

</div>

<!--Year-->

<div class="col-md-4">

<div class="form-group">

Trihalomethanes:

<input type="text" class="form-control"

name="Trihalomethanes" placeholder="Enter value" required="true">

</div>

</div>

<!--Month-->

<div class="col-md-4">

<div class="form-group">

Turbidity:

<input type="text" class="form-control" name="Turbidity"

placeholder="Enter value" required="true">

</div>

</div>

<!-- Date -->

</div>

<div class="row">

<div class="col-md-4">

<div class="form-group">

nph:

<input type="text" class="form-control" name="nph"

placeholder="Enter value" required="true">

</div>

</div>

```
<!--Year-->
<div class="col-md-4">
<div class="form-group">
<span class="form-label">nHardness:</span>
<input type="text" class="form-control" name="nHardness"
placeholder="Enter value" required="true">
<span class="select-arrow"></span>
</div>
</div>
<!--Month-->
<div class="col-md-4">
<div class="form-group">
<span class="form-label">wph:</span>
<input type="text" class="form-control" name="wph"
placeholder="Enter value" required="true">
<span class="select-arrow"></span>
</div>
</div>
<!-- Date-->
</div>
<div class="row">
<div class="col-md-4">
<div class="form-group">
<span class="form-label">wHardness:</span>
<input type="text" class="form-control" name="wHardness"
placeholder="Enter value" required="true">
<span class="select-arrow"></span>
</div>
</div>
<!--Year-->
```

```

<div class="col-md-4">
<div class="form-group">
<span class="form-label">wSolids:</span>
<input type="text" class="form-control" name="wSolids"
placeholder="Enter value" required="true">
<span class="select-arrow"></span>
</div>
</div>
<!--Month>
<div class="col-md-4">
<div class="form-group">
<span class="form-label">wqi:</span>
<input type="text" class="form-control" name="wqi"
placeholder="Enter value" required="true">
<span class="select-arrow"></span>
</div>
</div>
<!-- Date>
</div>
<!-- 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>

<!--Form end-->

</div>

<!--Booking form>

</div>

</div>

</div>

</div>

</div>

</div>

</p>

</body>

</html>

```

APP.PY:

```

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('index.html')

@app.route('/predict', methods = ['POST'])
def predict():

    ph = request.form['ph']
    Hardness = request.form['Hardness']
    Solids = request.form['Solids']
    Chloramines = request.form['Chloramines']
    Sulfate = request.form['Sulfate']
    Conductivity = request.form['Conductivity']
    Organic_carbon = request.form['Organic_carbon']
    Trihalomethanes = request.form['Trihalomethanes']
    Turbidity = request.form['Turbidity']
    npH = request.form['npH']
    nHardness = request.form['nHardness']
    wph = request.form['wph']
    wHardness = request.form['wHardness']
    wSolids = request.form['wSolids']
    wqi = request.form['wqi']

    t =

[[float(ph),float(Hardness),int(Solids),float(Chloramines),float(Sulfate),float(Conductivity),fl
oat(Organic_carbon),float(Trihalomethanes),float(Turbidity),int(npH),int(nHardness),float(w
ph),float(wHardness),float(wSolids),float(wqi)]]

    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://ussouth.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", "f7", "f8", "f9", "f10", "f11", "f12", "f13", "f14"]], "values":t  
}]}
```

```
pred= response_scoring.json()
```

```
output=pred['predictions'][0]['values'][0][0]
```

```
print(output)
```

```
return render_template("index.html", prediction_text = output)
```

```
if __name__=='__main__':
```

```
app.run(debug = False)
```