

**Project Development Phase**  
**SPRINT 3**

Date	07.11.2022
Team ID	PNT2022TMID17773
Project Name	Project -Statistical Machine Learning Approaches To Liver Disease Prediction

**Executable Program**

**HTML FILES:**

**INDEX PAGE :**

```
<!DOCTYPE html>
<html>
    <head>
        <title>Patient Liver Prediction</title>
        <style>
            body{
                background-repeat: no-repeat;
                background-attachment: fixed;
                background-size: 100% 100%;
                background-image: url({{ url_for('static', filename='fatty-
liver.jpg') }});
            }
            #t1{
                background-color: aliceblue;
                color: black;
            }
            #h{
                background-color: slateblue;
                text-align: center;
            }
            #gen{
                opacity: .5;
            }
            #b1 {
                color: black;
                text-align: center;
                display: inline-block;
                font-size: 16px;
                margin: 4px 2px;
            }
        </style>
    </head>
    <body>
        <h1 id="h">Patient Liver Prediction</h1>
        <form method="POST" action="/predict">
            <table style="margin-left:auto;margin-right:auto;" id="t1
```

```

        <tr>
            <td><label>Age : </label></td>
            <td><input type="text" name="age"><br></td>
        </tr>
        <tr>
            <td><label>Gender : </label></td>
            <td><input type="text" name="gen" placeholder="Enter 0 as Male, 1
as Female"><br></td>
        </tr>
        <tr>
            <td><label>Total Bilirubin : </label></td>
            <td><input type="text" name="tbil" required><br></td>
        </tr>
        <tr>
            <td><label>Direct Bilirubin : </label></td>
            <td><input type="text" name="dbil"
required><br></td>
        </tr>
        <tr>
            <td><label>Alkaline Phosphate : </label></td>
            <td><input type="text" name="alk" required><br></td>
        </tr>
        <tr>
            <td><label>Alanine aminotransferase : </label></td>
            <td><input type="text" name="ala" required><br></td>
        </tr>
        <tr>
            <td><label>Aspartate aminotransferase : </label></td>
            <td><input type="text" name="asp"
required><br></td>
        </tr>
        <tr>
            <td><label>Total Protiens : </label></td>
            <td><input type="text" name="tpro"
required><br></td>
        </tr>
        <tr>
            <td><label>Albumin : </label></td>
            <td><input type="text" name="alb" required><br></td>
        </tr>
        <tr>
            <td><label>Albumin and Globulin ratio : </label></td>
            <td><input type="text" name="albglo" required><
</tr>
        <tr>
            <td><button class="button"
id="b1">Predict</button></td>
        </tr>
    </table>
</form>
</body>

```

```
</html>
```

## PREDICTION PAGE:

```
<!DOCTYPE html>
```

```
<html lang="en">
```

```
<head>
```

```
  <meta charset="UTF-8">
```

```
  <title>Patient Liver Prediction</title>
```

```
  <style>
```

```
    body{
```

```
        background-repeat: no-repeat;
```

```
        background-attachment: fixed;
```

```
        background-size: 100% 100%;
```

```
        background-image: url({{ url_for('static', filename='fatty-liver.jpg') }});
```

```
    }
```

```
    #t1{
```

```
        color: red;
```

```
        background-color: white;
```

```
    }
```

```
  </style>
```

```
</head>
```

```
<body>
```

```
  <table style="margin-left:auto;margin-right:auto;margin-top: auto;margin-bottom:
auto;border: 5px solid black;" id="t1">
```

```
    <tr>
```

```
      <td>
```

```
        <h2><p>Your test result is</p></h2>
```

```
      </td>
```

```
    </tr>
```

```
    <tr>
```

```
      <td>
```

```
        <h1>{{res}}</h1>
```

```
      </td>
```

```
    </tr>
```

```
  <tr>
```

```
    <td>
```

```
      {% if res==1 %}
```

```
        <div id="d1"><h4><!-- 😞 <br>--><br>You have LIVER DISEASE
<br><br>Please Consult a Doctor.</h4></div>
```

```
        <!---->
```

```
      {% elif res==0 %}
```

```
        <div id="d1"><h4><!-- 🎉 Congratulation! 🎉 <br>--><br>You
DON'T have LIVER DISEASE.</h4></div>
```

```
        <!---->
```

```
      {% endif %}
```

```
    </td>
```

```

</tr>
        <tr>
            <td><a href="/"> Go back </a></td>
        </tr>
    </table>

</body>
</html>

```

#### FLASK FILE:

```

import flask
from flask import request, render_template, url_for
from flask_cors import CORS
import joblib

app = flask.Flask(__name__)
CORS(app)
@app.route('/', methods=['GET'])
def homePage():
    return render_template('index.html')

#@app.route('/favicon.ico')
#def favicon():
#    return url_for('static', filename='image/favicon.ico')

@app.route('/predict', methods=['POST'])
def predict():
    a = int(request.form['age'])
    g = int(request.form['gen'])
    tb = float(request.form['tbil'])
    db = float(request.form['dbil'])
    ap = int(request.form['alk'])
    ala = int(request.form['ala'])
    asa = int(request.form['asp'])
    tp = float(request.form['tpro'])
    alb = float(request.form['alb'])
    ag = float(request.form['albglo'])
    X = [[a, g, tb, db, ap, ala, asa, tp, alb, ag]]
    model = joblib.load('disease.pkl')
    disease = model.predict(X)[0]
    return render_template('predict.html', res=disease)

if __name__ == '__main__':
    app.debug = True
    app.run()

```

OUTPUT:

