

CS2201- APPLICATION DEVELOPMENT PRACTICES

(Regulation 2022)

Project Report

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Year / Semester / Section : 1ST Year /II Sem / B Section

Branch : Artificial Intelligence and Data Science

Project Title : **BMI Calculator**

Department of Science & Humanities



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Register No:

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BONAFIDE CERTIFICATE

This is to certify that the work entitled
.....BMI Calculator.....bonafide project done by
Mr./Ms.....PRITHIKA G.....of II semester
.....AI DS-B..... in the Application
Development Practices -CS2201 during the academic year 2022 - 2023

Staff – in – Charge

Head of the Department

BODY MASS INDEX CALCULATOR

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OBJECTIVES:

The main objective of building Body Mass Index (BMI) Calculator out of HTML , CSS , and JavaScript is to essentially determine how much mass we have in our body.

There are two ways to calculate the BMI: manually or by entering the values into a BMI calculator and receiving the actual BMI. The formula will be the same in both cases, but manual BMI calculation is a time-consuming process, so we will create our own BMI Calculator to save time.

DESCRIPTION:

Body mass index (BMI) is a calculation that is sometimes used in healthcare settings as an indirect method to determine a person's body weight category. This BMI calculator can help us learn what this measurement means and how it relates to our health and fitness.

What Does BMI Measure?

BMI is a measurement that takes into account your height, and weight to produce a calculation. This calculation is a measurement of your body size and can be used to determine how your body weight is related to your height. It is a method of determining whether you may be underweight, average weight, overweight, or obese

How BMI Is Measured:

Your BMI is calculated using your height and weight. It can be a starting point for understanding the way your body fat may impact your overall health.

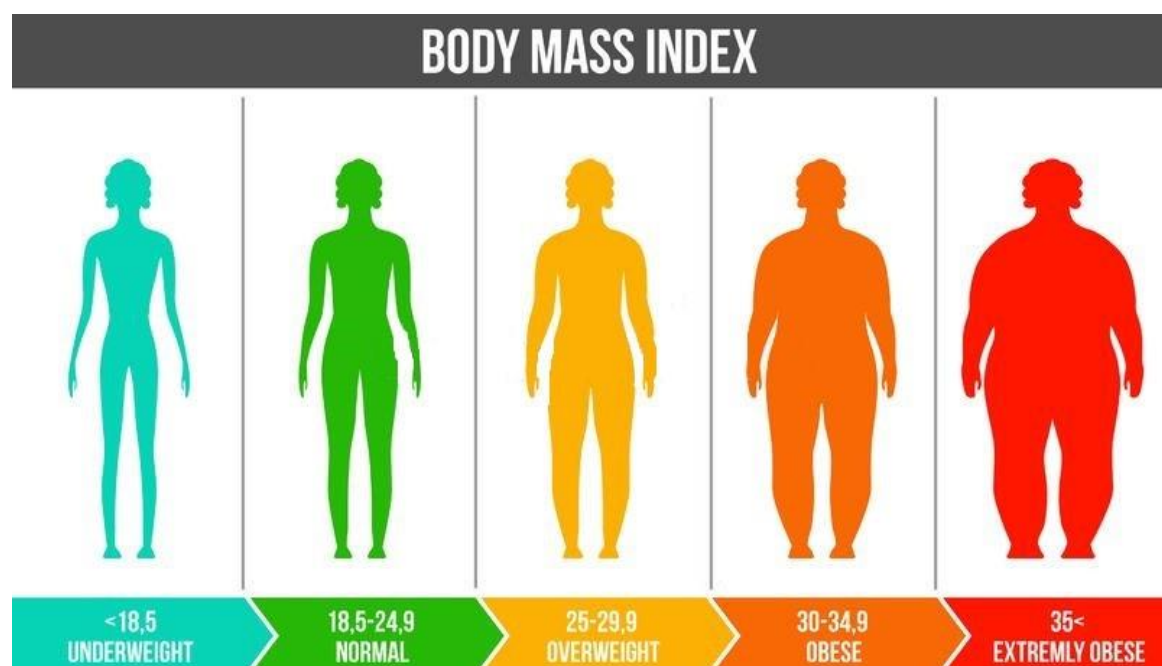
FORMULA:

$$\text{BMI} = \text{WEIGHT} / (\text{HEIGHT} * \text{HEIGHT})$$

THE RANGE IS AS FOLLOWS:

- If BMI <18.5 then it is UNDERWEIGHT
- If $18.5 \leq \text{BMI} \leq 24.9$ then it is HEALTHY
- If $25 \leq \text{BMI} \leq 29.9$ then it is OVERWEIGHT
- If $30 \leq \text{BMI} \leq 34.9$ then it is OBESE
- If $35 \leq \text{BMI}$ then it is EXTREMELY OBESE

It can be better understood by looking at the chart below:



SOURCE CODE:

SOURCE CODE FOR LOGIN PAGE:

HTML:

```
<!DOCTYPE html>
<html lan="en" and dir="ltr">
  <head>
    <meta charset="utf-8">
    <title>Login Form</title>
    <link rel="stylesheet" href="style login.css">
    <script src="js login.js"></script>
  </head>
  <body>
    <form class="box" action="login2.html" method="post">
      <h1>
        Login
      </h1>
      <input type="text" name="" placeholder="Enter Username"
id="username">
      <input type="password" name="" placeholder="Enter Password"
id="password">
      <input type="submit" name="" value="Login" onclick="validate()">
    </form>
  </body>
</html>
```

CSS:

```
body{
  margin:0;
  padding: 0;
  font-family:Quicksand;
  background: url(pic1.jpg);
  background-size:cover;
}
.box{
  width: 300px;
  padding: 30px;
  position: absolute;
  top:50%;
```

```

    left:50%;
    transform:translate(-50%,-50%);
    background:rgb(226, 193, 193);
    text-align:center;
}
.box h1{
    color:rgb(12, 11, 11);
    text-transform:uppercase;
    font-weight: 700;
}
.box input[type="text"], .box input[type="password"]
{
    border:0;
    background:rgb(226, 193, 193);
    display:block;
    margin:20px auto;
    text-align: center;
    border:3px solid #0367fd;
    padding:14px 10px;
    width:220px;
    outline:none;
    color:#131312ec;
    border-radius: 24px;
    transition: 0.25px;
}
.box input[type="text"]:focus, .box input[type="password"]:focus{
    width:270px;
    border-color: #131312ec;
}
.box input[type="submit"]{
    border:0;
    background:none;
    display:block;
    margin:20px auto;
    text-align: center;
    border:3px solid #b71b3fec;
    padding:14px 35px;
    outline:none;
    color:white;
    border-radius: 24px;
    transition: 0.25px;
    cursor:pointer;
}
.box input[type="submit"]:hover{
    background: #b71b3fec;
}

```

JAVASCRIPT:

```
function validate()
{
    var username=document.getElementById("username").value;
    var password=document.getElementById("password").value;
    if(username == "pri1234" && password == "pri")
    {
        alert("Login Successful");
        window.open("login2.html");
    }
    else
    {
        alert("Login Failed");
        window.open("first.html");
    }
}
```

SOURCE CODE FOR BMI CALCULATOR:

HTML:

```
<html lang="en">
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
<head>
  <link href="style.css" rel="stylesheet">
</head>
<body>
  <h3><b>B</b>ody <b>M</b>ass <b>I</b>ndex Calculator</h3>
  <header class="header">
    <nav>
      <ul>
        <li><b><a href="about.html" class="ABOUT">ABOUT</a></b></li>
      </ul>
    </nav>
  </header>

  <form class="form" id="form" onsubmit="return validateForm()">
  <div class="row-one">
    <input type="text" class="text-input" id="age" autocomplete="off"
required/><p class="text">Age</p>
    <label class="container">
      <input type="radio" name="radio" id="f"><p class="text">Female</p>
```



```

        <span class="checkmark"></span>
    </label>
    <label class="container">
    <input type="radio" name="radio" id="m"><p class="text">Male</p>
        <span class="checkmark"></span>
    </label>
</div>

<div class="row-two">
    <input type="text" class="text-input" id="height" autocomplete="off"
required><p class="text">Height (cm)</p>
    <input type="text" class="text-input" id="weight" autocomplete="off"
required><p class="text">Weight (kg)</p>
</div>
<button type="button" id="submit">Submit</button><script src="bmi.js"
></script>
</form>
</body>
</html>

```

CSS:

```

* {
    font-family: Quicksand;
    font-size: 16px;
    color: #adb71b;
}
body {
    margin: 0;
    height: 100vh;
    padding: 0;
    border: 0;
    background: url(pic1.jpg);
}
.form {
    background-color: #f0e7e7;
    height: 240px;
    width: 450px;
    border-radius: 60px;
    margin: 20px auto 20px auto;
    display: block;
    border: solid 1px #289df6;
    box-shadow: 0 0 40px 0 #ddd;
}
.form:hover {
    box-shadow: 0 0 60px 0 #ccc;
    transition: 0.4s;
}

```

```
    transform: scale(1.02);
}
.row-one {
    padding: 20px;
}
.row-two {
    padding: 20px;
}
.text-input {
    width: 60px;
    height: 30px;
    border-radius: 10px;
    background-color: #92b3cd ;
    border: none;
    outline: none;
    padding: 5px 10px;
    cursor: pointer;
    color: #d51f1f;
}
.text-input:last-child {
    margin-bottom: 35px;
}
.text-input:hover {
    background-color: #cbe7fd;
}
#submit {
    border: none;
    border-radius: 10px;
    height: 40px;
    width: 140px;
    background-color: #289df6;
    color: #fff;
    margin: auto;
    display: block;
    outline: none;
    cursor: pointer;
}
#submit:hover {
    background-color: #0a8ef2;
}
.text {
    display: inline-block;
    margin: 5px 20px 5px 8px;
}
.row-one {
    padding: 30px 20px 15px 20px;
}
.row-two {
```

```
padding: 15px 20px 30px 20px;
}
.container {
display: inline-block;
position: relative;
padding-left: 30px;
cursor: pointer;
user-select: none;
}
.container input {
position: absolute;
opacity: 0;
}
.checkmark {
position: absolute;
top: 0;
left: 0;
height: 25px;
width: 25px;
background-color: #92b3cd;
border-radius: 50%;
}
.container:hover input ~ .checkmark {
background-color: #cbe7fd;
}
.container input:checked ~ .checkmark {
background-color: #289df6;
}
h1 {
font-size: 30px;
font-weight: 300;
text-align: center;
color: #d51f1f;
padding-top: 15px;
display: block;
}
h2 {
font-size: 22px;
font-weight: 300;
text-align: center;
}
h3 {
font-size: 24px;
font-weight: 300;
text-align: center;
padding: 15px;
}
h3 b {
```

```

    font-size: 32px;
    font-weight: 300;
    color: #289df6;
}
.checkmark:after {
    content: "";
    position: absolute;
    display: none;
}
.container input:checked ~ .checkmark:after {
    display: block;
}
.container .checkmark:after {
    left: 9px;
    top: 5px;
    width: 5px;
    height: 10px;
    border: solid white;
    border-width: 0 2px 2px 0;
    transform: rotate(45deg);
}

```

JAVASCRIPT:

```

var age = document.getElementById("age");
var height = document.getElementById("height");
var weight = document.getElementById("weight");
var male = document.getElementById("m");
var female = document.getElementById("f");
var form = document.getElementById("form");

function validateForm(){
    if(age.value==' ' || height.value==' ' || weight.value==' ' ||
(male.checked==false && female.checked==false)){
        alert("All fields are required!");
        document.getElementById("submit").removeEventListener("click", countBmi);
    }else{
        countBmi();
    }
}
document.getElementById("submit").addEventListener("click", validateForm);

function countBmi(){
    var p = [age.value, height.value, weight.value];
    if(male.checked){
        p.push("male");
    }else if(female.checked){
        p.push("female");
    }
}

```

```

    }
    form.reset();
    var bmi = Number(p[2])/(Number(p[1])/100*Number(p[1])/100);

    var result = '';
    if(bmi<18.5){
        result = 'Underweight';
    }else if(18.5<=bmi&&bmi<=24.9){
        result = 'Healthy';
    }else if(25<=bmi&&bmi<=29.9){
        result = 'Overweight';
    }else if(30<=bmi&&bmi<=34.9){
        result = 'Obese';
    }else if(35<=bmi){
        result = 'Extremely obese';
    }

    var h1 = document.createElement("h1");
    var h2 = document.createElement("h2");

    var t = document.createTextNode(result);
    var b = document.createTextNode('BMI: ');
    var r = document.createTextNode(parseFloat(bmi).toFixed(2));

    h1.appendChild(t);
    h2.appendChild(b);
    h2.appendChild(r);

    document.body.appendChild(h1);
    document.body.appendChild(h2);
    document.getElementById("submit").removeEventListener("click", countBmi);
    document.getElementById("submit").removeEventListener("click",
validateForm);
}
document.getElementById("submit").addEventListener("click", countBmi);

```

CODE FOR ABOUT PAGE:

HTML:

```

<!DOCTYPE html>
<html lang="en">
    <meta charset="UTF-8">
    <meta name="viewport" content="width=device-width, initial-scale=1.0">
</head>

```

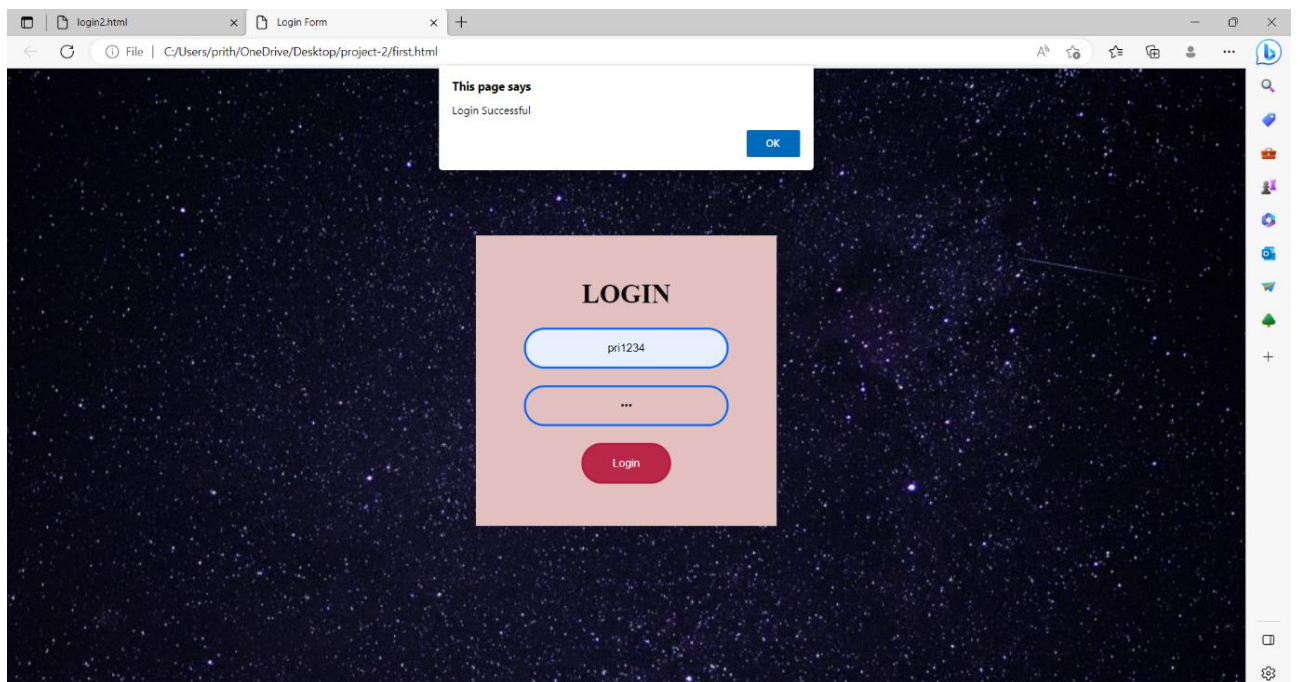
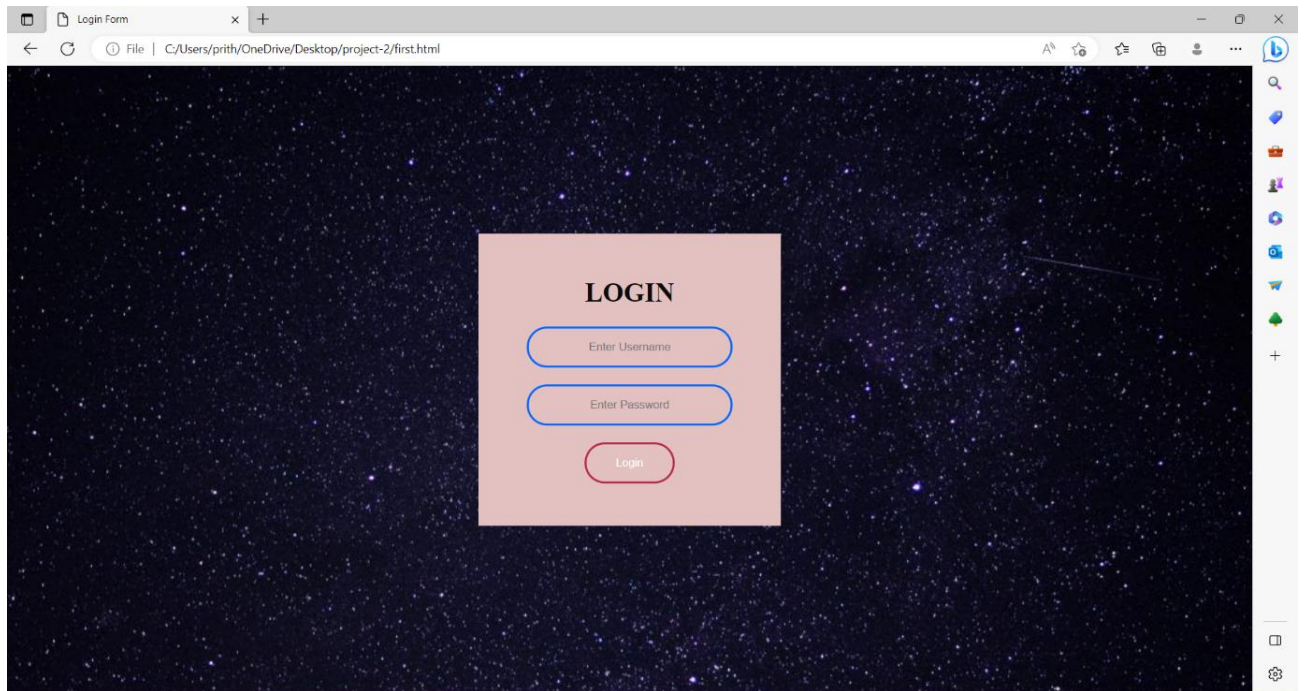
```

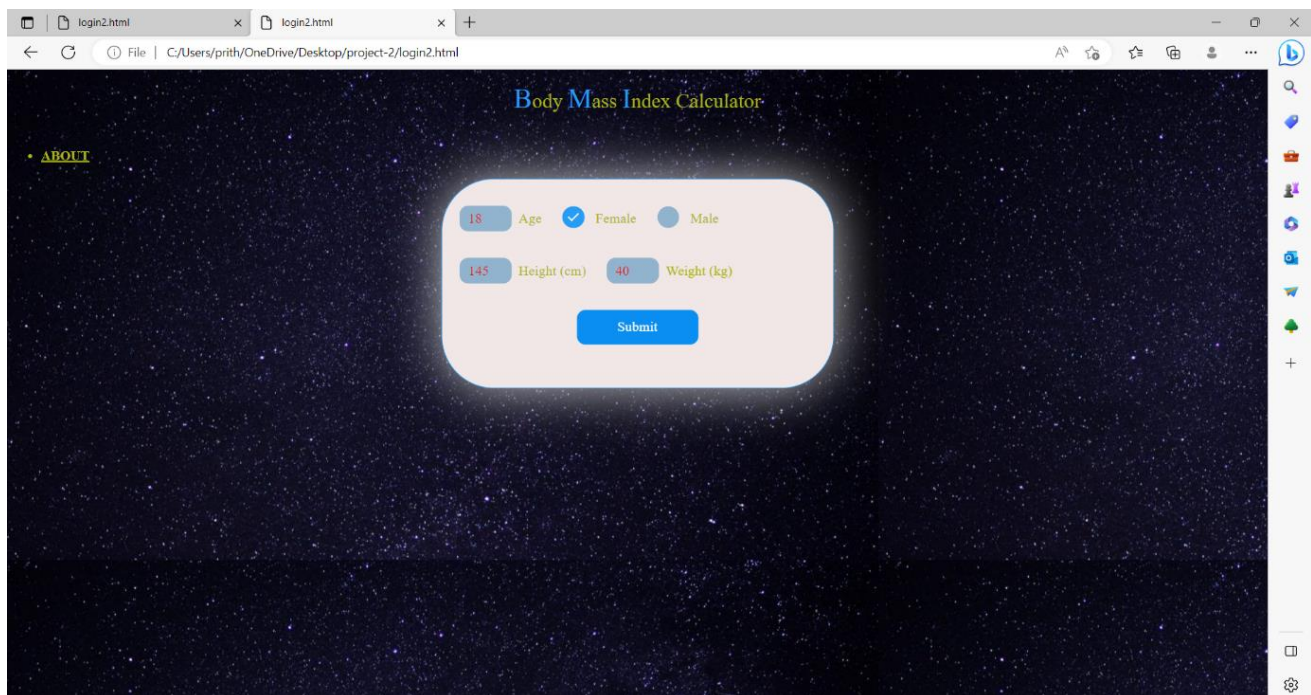
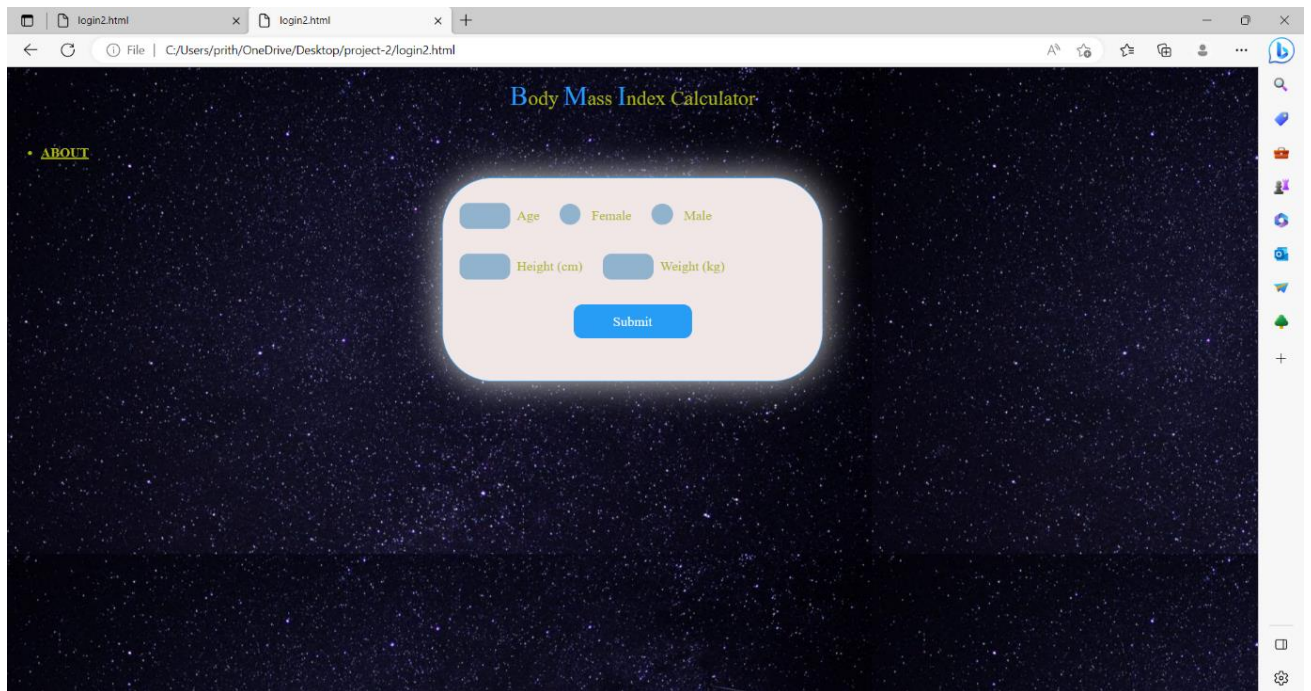
    <link href="style.css" rel="stylesheet">
</head>
<body>
    <h3><b>Body Mass Index Calculator</b></h3>
    <p><h2>The Body Mass Index (BMI) Calculator can be used to calculate BMI
values based on height and weight. BMI is a fairly reliable indicator of body
fatness for most people.</h2></p>

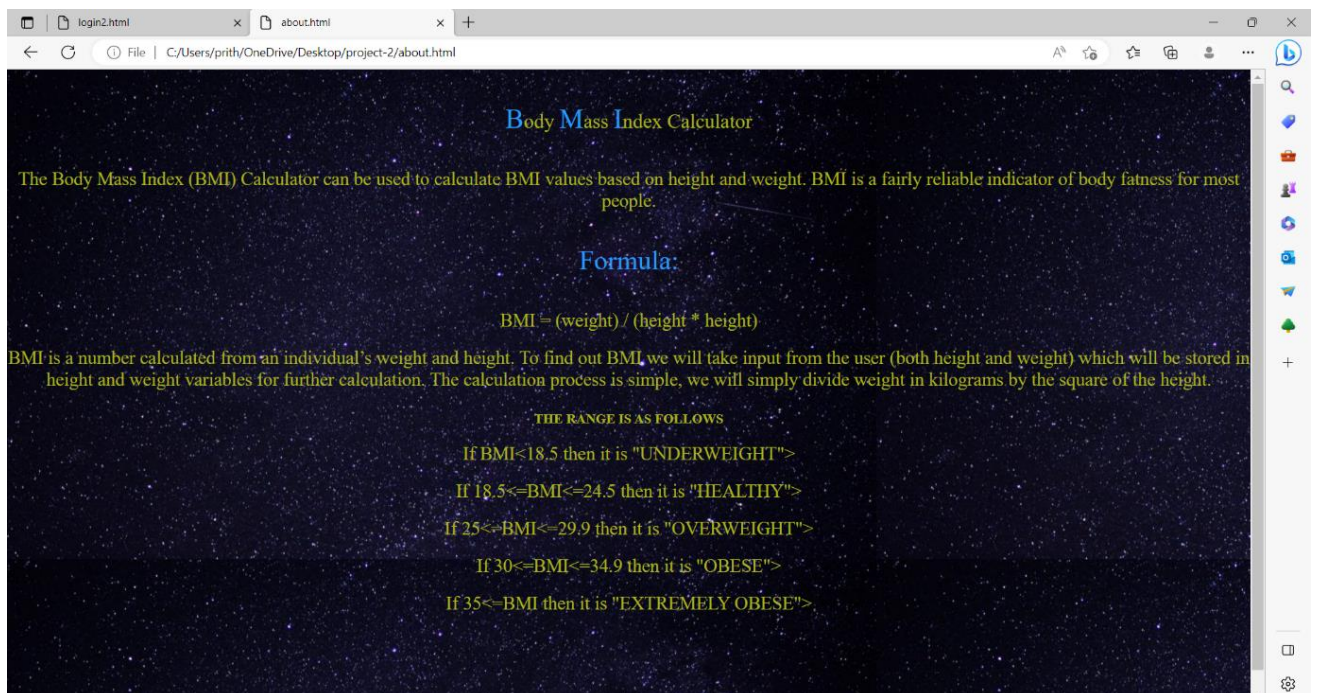
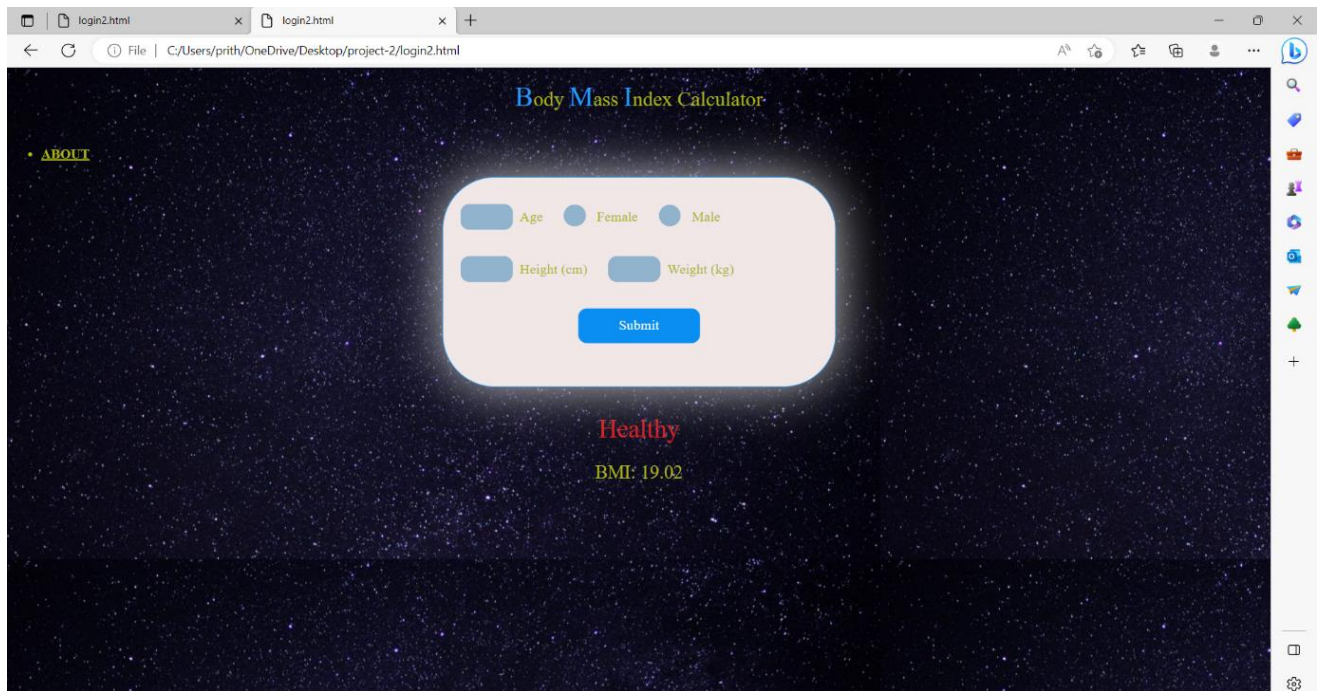
    <P><h3><b>Formula:</b></h3></P>
    <p><h2>BMI = (weight) / (height * height)</h2></p>
    <p><h2> BMI is a number calculated from an individual's weight and
height. To find out BMI we will take input from the user (both height and
weight) which will be stored in height and weight variables for further
calculation. The calculation process is simple, we will simply divide weight
in kilograms by the square of the height. </h2></p>
    <p><h2><b>THE RANGE IS AS FOLLOWS</b></h2></p>
    <p><h2>If BMI<18.5 then it is "UNDERWEIGHT"></h2></p>
    <p><h2>If 18.5<=BMI<=24.5 then it is "HEALTHY"></h2></p>
    <p><h2>If 25<=BMI<=29.9 then it is "OVERWEIGHT"></h2></p>
    <p><h2>If 30<=BMI<=34.9 then it is "OBESE"></h2></p>
    <p><h2>If 35<=BMI then it is "EXTREMELY OBESE"></h2></p>

```

OUTPUT:







GITHUB PROJECT URL:

<https://github.com/PrithikaG/BMI--CALCULATOR.git>