

PROGRAM:

```
const express = require('express');

const app = express();

const PORT = 8080;

// Middleware to parse form data
app.use(express.urlencoded({ extended: true }));

// Home Route - Displays Form
app.get('/', (req, res) => {
    res.send(`

        <!DOCTYPE html>
        <html>
            <head>
                <title>BMI Calculator</title>
                <style>
                    @import
                    url('https://fonts.googleapis.com/css2?family=Montserrat:wght@400;600&display=swap');
                </style>
            </head>
            <body>
                font-family: 'Montserrat', sans-serif;
                display: flex;
                justify-content: center;
                align-items: center;
                min-height: 100vh;
                background: linear-gradient(135deg, #89f7fe 0%, #66a6ff 100%);
                margin: 0;
            </body>
        </html>
    `);
});
```

```
.container {  
background: #fffffc; /* semi-transparent white */  
padding: 40px 30px;  
width: 350px;  
border-radius: 12px;  
box-shadow: 0 8px 20px rgba(0,0,0,0.2);  
transition: transform 0.3s, box-shadow 0.3s;  
}  
.container:hover {  
transform: translateY(-5px);  
box-shadow: 0 12px 30px rgba(0,0,0,0.3);  
}  
  
h2 {  
text-align: center;  
margin-bottom: 20px;  
color: #333;  
}  
  
input {  
width: 100%;  
padding: 12px 15px;  
margin: 10px 0;  
border: 2px solid #ddd;  
border-radius: 8px;  
font-size: 16px;  
transition: border-color 0.3s, box-shadow 0.3s;  
}  
  
input:focus {
```

```
outline: none;  
border-color: #66a6ff;  
box-shadow: 0 0 8px rgba(102, 166, 255, 0.5);  
}  
  
button {  
width: 100%;  
padding: 14px;  
margin-top: 20px;  
background-color: #66a6ff;  
border: none;  
border-radius: 8px;  
font-size: 16px;  
font-weight: 600;  
color: #fff;  
cursor: pointer;  
transition: background-color 0.3s, transform 0.2s;  
}  
  
button:hover {  
background-color: #558de8;  
transform: translateY(-2px);  
}  
  
/* Responsive hover effect for button */  
  
@media (hover: hover) {  
button:active {  
transform: translateY(0);  
background-color: #4472d2;  
}
```

```
        }

    </style>

</head>

<body>

<div class="container">

    <h2>BMI Calculator</h2>

    <form action="/calculate" method="POST">

        <input type="number" step="0.1" name="weight" placeholder="Weight (kg)" required />

        <input type="number" step="0.1" name="height" placeholder="Height (cm)" required />

        <button type="submit">Calculate</button>

    </form>

</div>

</body>

</html>

');

});

// Calculate Route
```

```
app.post('/calculate', (req, res) => {

    const weight = parseFloat(req.body.weight);

    const heightCm = parseFloat(req.body.height);

    if (isNaN(weight) || isNaN(heightCm) || weight <= 0 || heightCm <= 0) {

        return res.send(`

            <h2>Invalid input. Please enter positive numbers for weight and height.</h2>

            <a href="/">Go Back</a>

        `);
    }
});
```

```
}

const heightM = heightCm / 100;

const bmi = weight / (heightM * heightM);

const roundedBMI = bmi.toFixed(2);

let category = "";

if (bmi < 18.5) {

    category = 'Underweight';

} else if (bmi < 24.9) {

    category = 'Normal weight';

} else if (bmi < 29.9) {

    category = 'Overweight';

} else {

    category = 'Obese';

}

res.send(`

<!DOCTYPE html>

<html>

<head>

<title>BMI Result</title>

<style>

    @import
    url('https://fonts.googleapis.com/css2?family=Montserrat:wght@400;600&display=swap');

    body {`
```

```
font-family: 'Montserrat', sans-serif;  
  
display: flex;  
  
justify-content: center;  
  
align-items: center;  
  
min-height: 100vh;  
  
background: linear-gradient(135deg, #89f7fe 0%, #66a6ff 100%);  
  
margin: 0;  
  
}  
  
.result-box {  
  
background: #fffffc; /* semi-transparent white */  
  
padding: 40px 30px;  
  
width: 350px;  
  
border-radius: 12px;  
  
box-shadow: 0 8px 20px rgba(0,0,0,0.2);  
  
text-align: center;  
  
}  
  
h2 {  
  
margin-bottom: 20px;  
  
color: #333;  
  
}  
  
h3 {  
  
margin-top: 10px;  
  
color: #555;  
  
}  
  
a {  
  
display: inline-block;  
  
margin-top: 25px;
```

```
padding: 12px 20px;  
background-color: #66a6ff;  
color: #fff;  
border-radius: 8px;  
text-decoration: none;  
font-weight: 600;  
transition: background-color 0.3s, transform 0.2s;  
}  
  
a:hover {  
background-color: #558de8;  
transform: translateY(-2px);  
}  
  
</style>  
</head>  
<body>  
  <div class="result-box">  
    <h2>Your BMI: ${roundedBMI}</h2>  
    <h3>Category: ${category}</h3>  
    <a href="/">Calculate Again</a>  
  </div>  
</body>  
</html>  
  
'});  
});  
  
// Start Server  
  
app.listen(PORT, () => {  
  console.log(`Server running at http://localhost:\${PORT}`);
```

OUTPUT:

