Web Programming Assignment #5

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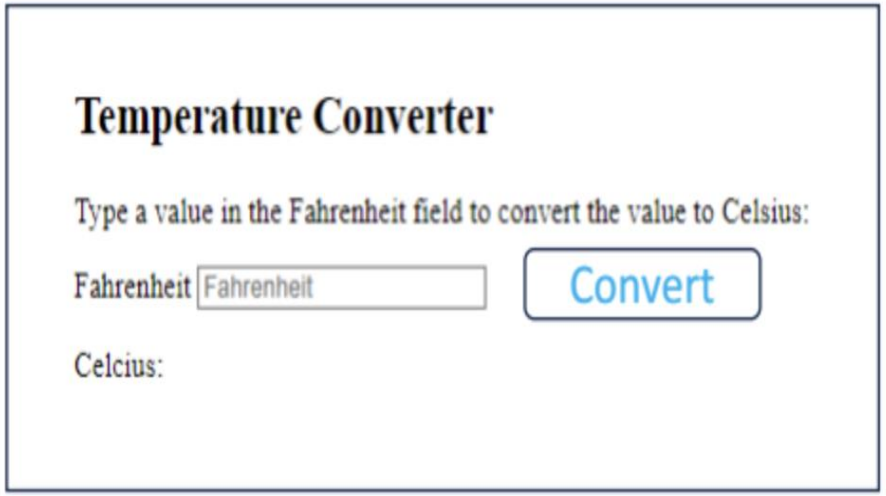
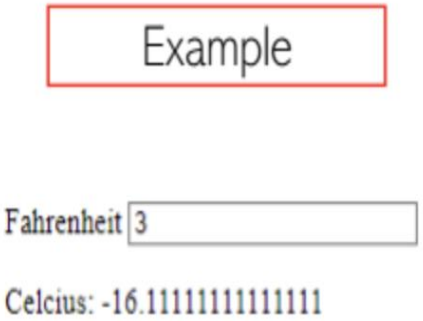
Due date: 2025.05.16
Submission date: 2025.05.12

Q1: Write an HTML code for the below form. Let user enter a value in this form, and then convert the value from Fahrenheit to Celsius using **JS function**.





Code

FtoC.html U | FtoC.css U | FtoC.js U

Assignment5 > FtoC.html > ...

```html
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Temprature Converter</title>
    <link rel="stylesheet" href="FtoC.css" />
  </head>
  <body>
    <form action="#">
      <h1>Temprature Converter</h1>
      <p>
        Type a value in the Fahrenheit field to convert the value to Celcius:
      </p>
      <label for="f_input"> Fahrenheit </label>
      <input
        type="number"
        step="0.001"
        id="f_input"
        placeholder="Fahrenheit (&deg;F)"
      />
      <button onclick="convertHandler(event)">Convert</button>
      <p>Celcius: <span id="c_result">-</span> &deg;C</p>
    </form>
  </body>
  <script src="FtoC.js"></script>
</html>

```

FtoC.html U | FtoC.css U | FtoC.js U

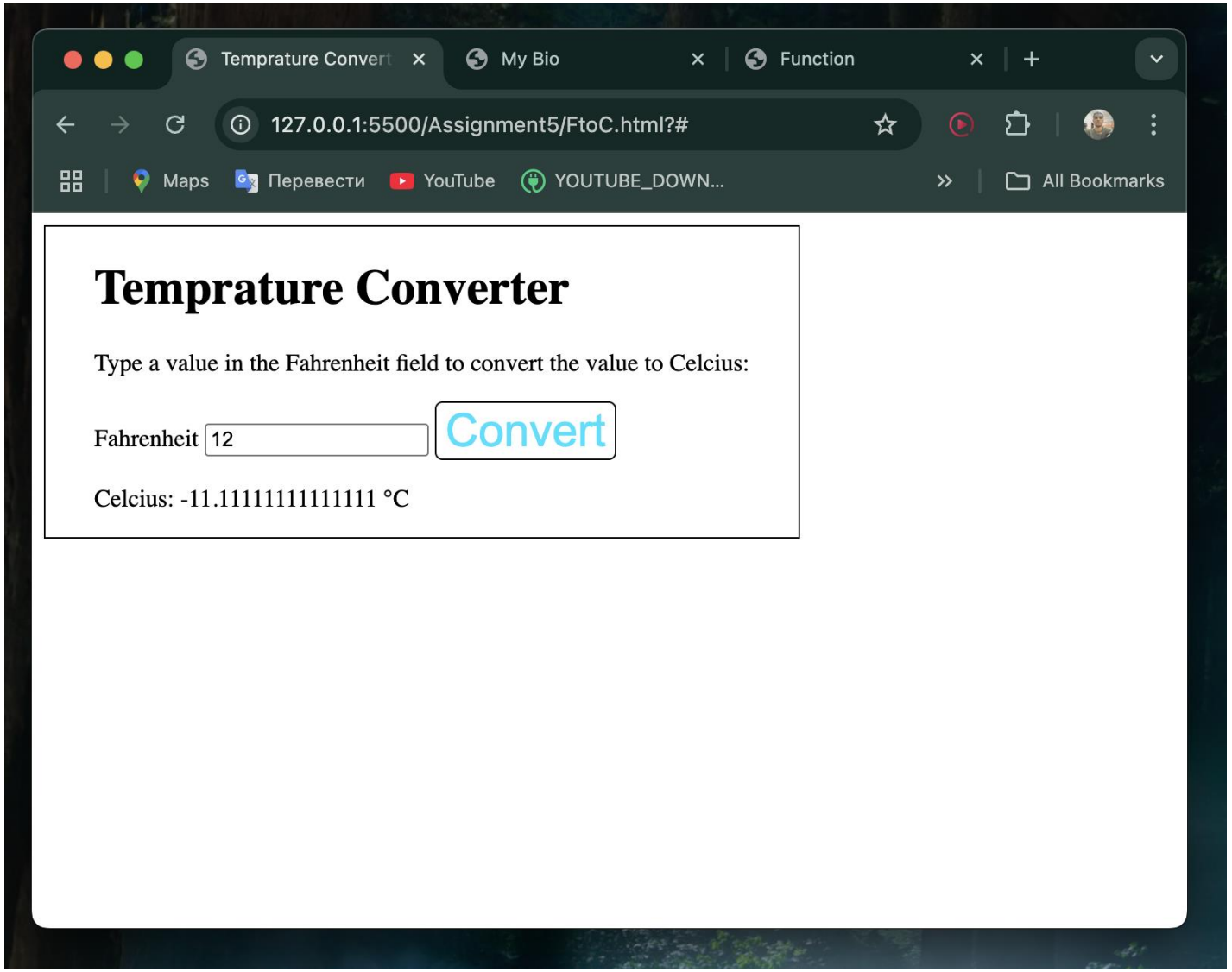
Assignment5 > FtoC.css > form

```css
form {
  width: fit-content;
  padding: 0 2rem;
  border: 1px solid black;
}

button {
  font-size: 30px;
  background: transparent;
  border: 1px solid black;
  border-radius: 5px;
  color: rgb(0, 225, 255);
  cursor: pointer;
}

```

FtoC.html U | FtoC.css U | FtoC.js U

Assignment5 > FtoC.js > convertHandler

```js
function FtoCConverter(f){
    return (f - 32) * 5/9; // Calculation formula
}

// Handler function
function convertHandler(e){
    const f_input = document.getElementById("f_input").value  // Getting input value
    document.getElementById("c_result").innerText = FtoCConverter(f_input)  // Putting Calculation result
}
```

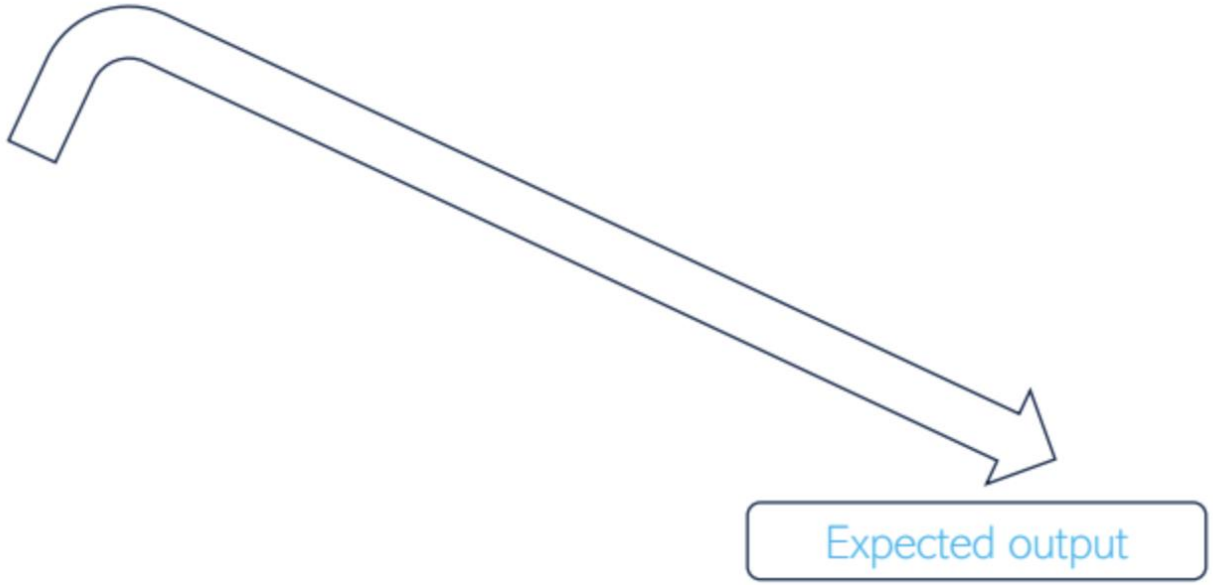

Temprature Convert
My Bio
Function
127.0.0.1:5500/Assignment5/FtoC.html?#
Maps
Перевести
YouTube
YOUTUBE_DOWN...
All Bookmarks
Temprature Converter
Type a value in the Fahrenheit field to convert the value to Celcius:
Fahrenheit 12
Convert
Celcius: -11.11111111111111 °C

Output

Q2: Create a JS object with your own information and then display the information in HTML Tables as shown below.

Object creation

```
const person = {
  firstName: "John",
  lastName :"Doe",
  id     :  5566
};
```



Expected output

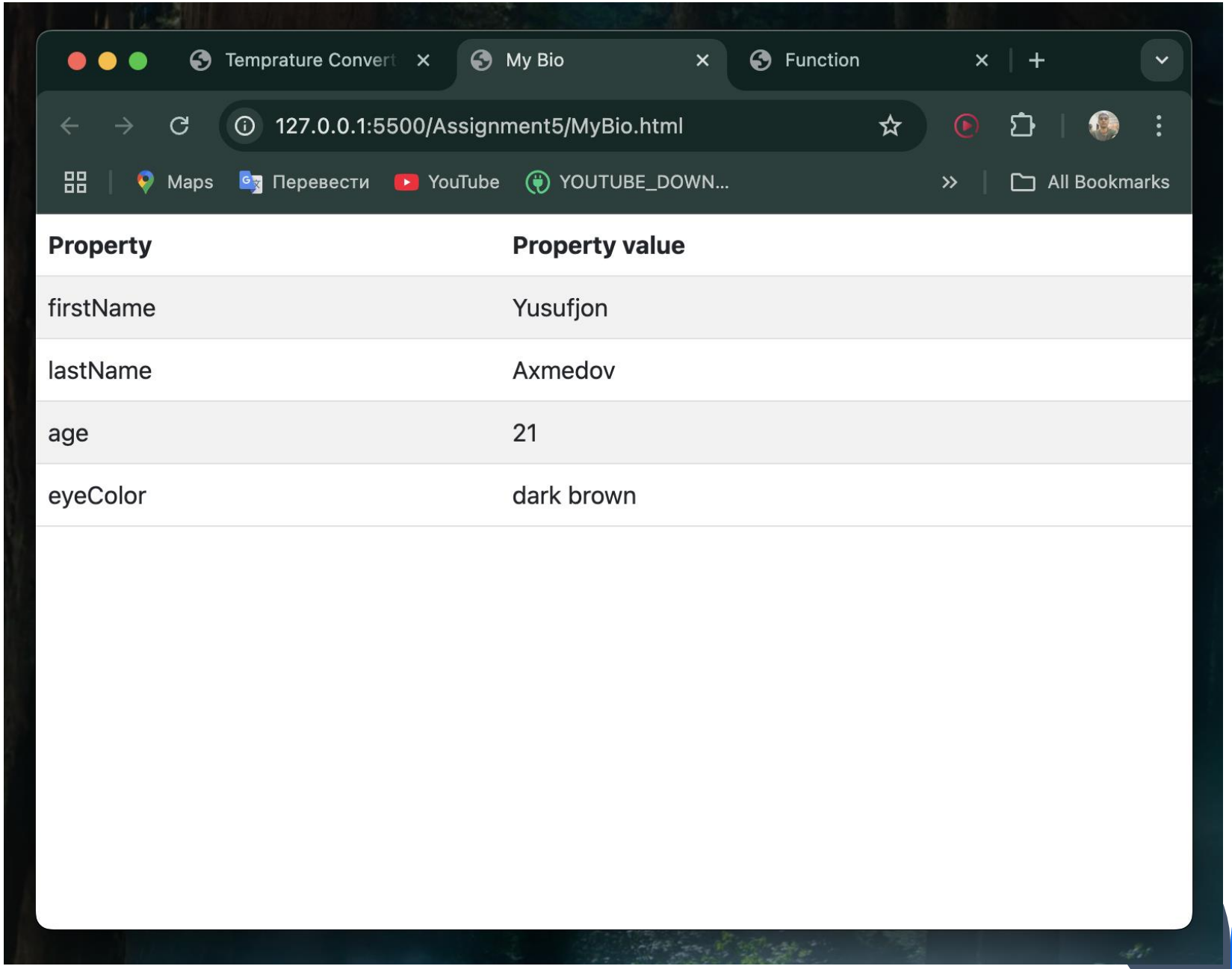
Property	Property Value
firstName	John
lastName	Doe
age	50
eyeColor	blue

Code

MyBio.html U

Assignment5 > MyBio.html > html > script

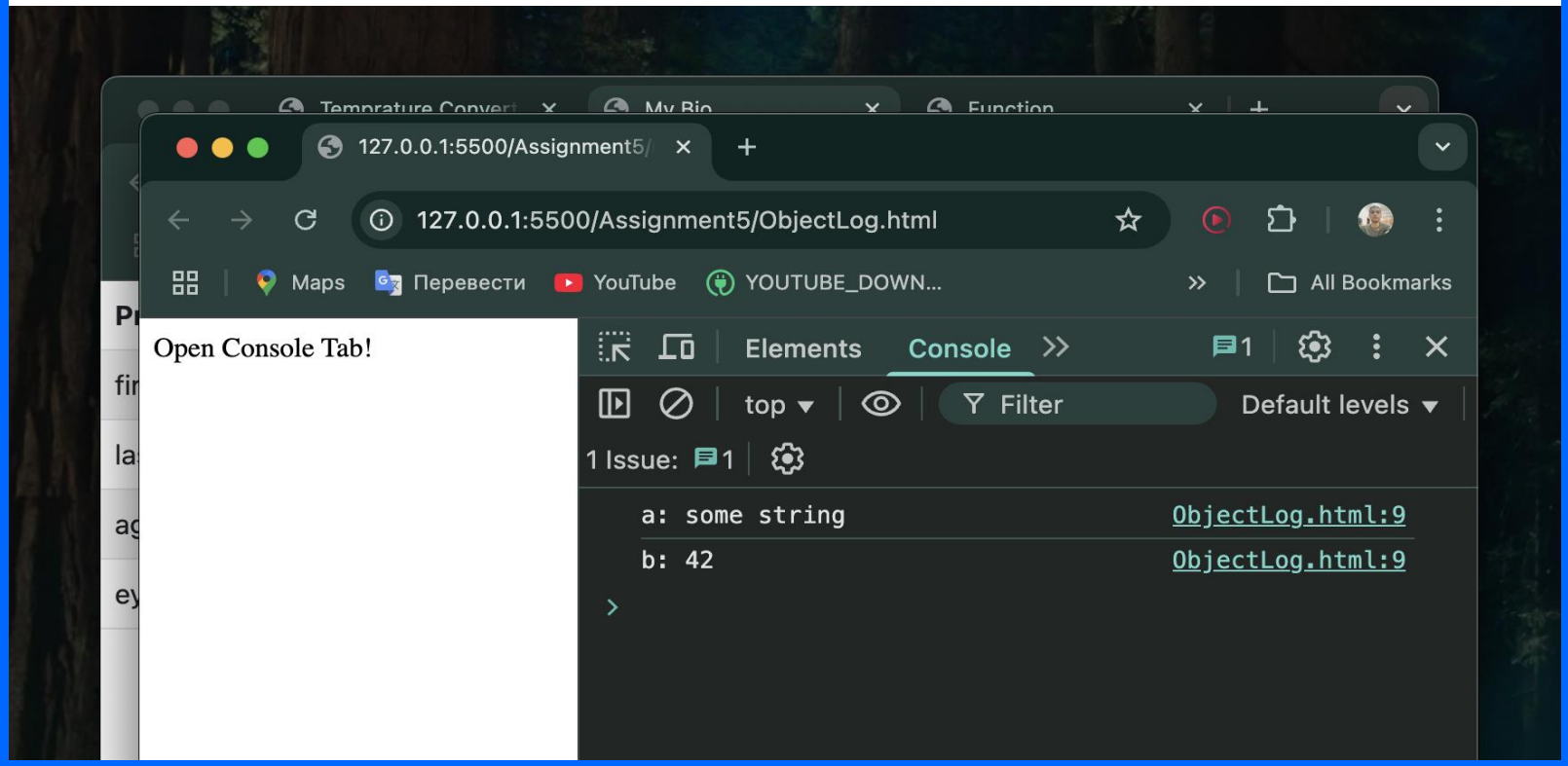
```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>My Bio</title>
    <link rel="stylesheet" href="../Assignment3/bootstrap.min.css" />
  </head>
  <body>
    <table class="table table-striped">
      <thead>
        <tr>
          <th>Property</th>
          <th>Property value</th>
        </tr>
      </thead>
      <tbody id="bio_data"></tbody>
    </table>
  </body>
  <script>
    const person = {
      firstName: "Yusufjon",
      lastName: "Axmedov",
      age: 21,
      eyeColor: "dark brown",
    };

    let tbody = document.getElementById("bio_data");

    for (const [key, value] of Object.entries(person)) {
      tbody.innerHTML += `<tr><td>${key}</td><td>${value}</td></tr>`;
      console.log(`<tr><td>${key}</td><td>${value}</td></tr>`);
    }
  </script>
</html>

```


Temprature Convert
My Bio
Function
127.0.0.1:5500/Assignment5/MyBio.html
Maps
Перевести
YouTube
YOUTUBE_DOWN...
All Bookmarks
Property
Property value
firstName
Yusufjon
lastName
Axmedov
age
21
eyeColor
dark brown

Output

Q3: Run the code below on your PCs and report the output.

```
const object1 = {
  a: "some string",
  b: 42,
};

for (const [key, value] of Object.entries(object1)) {
  console.log(`${key}: ${value}`);
}
```



Output report:
The properties of object1 variable are printed into the Console a browser

Q4: Why are JS functions used in web development? Please write the answer with 2~3 sentences only.

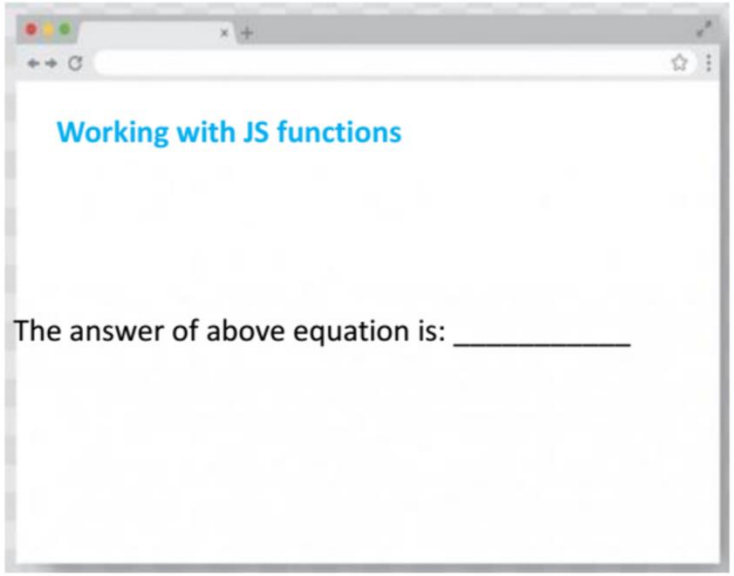
- JS functions help run specific tasks and make code reusable.
- They keep the code clean and easy to manage.
- Functions also let websites respond to user actions (click of a button, reloading page...).

Q5: Write JS function to solve the below equation and display the answer in web page as shown below.

$$Z = \frac{3x + 2y}{5b}$$

The values of variables are,

$$x = 2, y = 1, b = 9$$

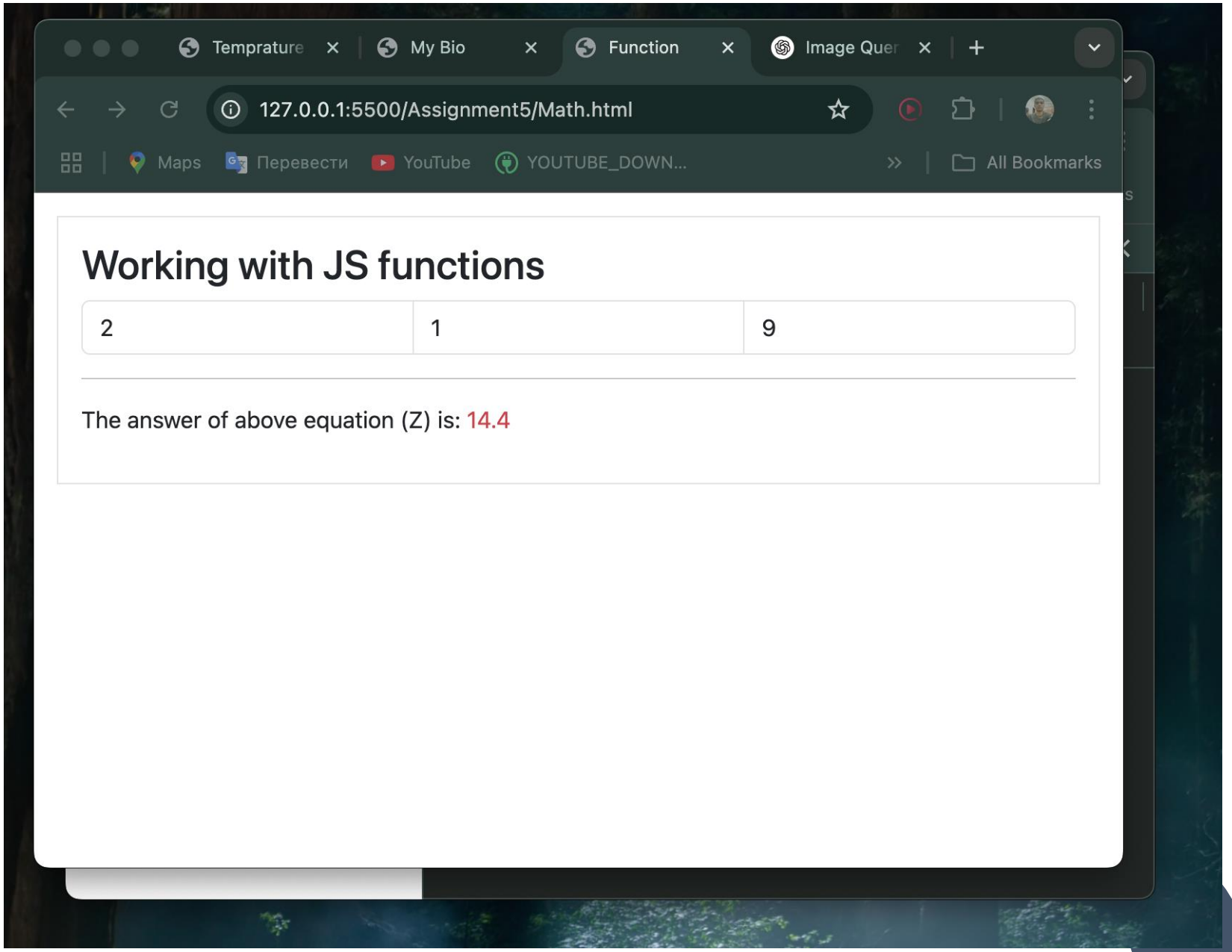


ObjectLog.html U | Math.html U

Assignment5 > Math.html > html > body > form.border.m-3.p-3 > div.input-

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1
    <title>Function</title>
    <link rel="stylesheet" href="../Assignment3/bootstrap.min.css" />
  </head>
  <body>
    <form action="#" class="border m-3 p-3">
      <h2>Working with JS functions</h2>
      <div class="input-group">
        <input
          type="number"
          id="x"
          step="any"
          oninput="_math_functions.inputHandler(event)"
          class="form-control"
          placeholder="Enter X's value"
        />
        <input
          type="number"
          id="y"
          step="any"
          oninput="_math_functions.inputHandler(event)"
          class="form-control"
          placeholder="Enter Y's value"
        />
        <input
          type="number"
          id="b"
          step="any"
          oninput="_math_functions.inputHandler(event)"
          class="form-control"
          placeholder="Enter B's value"
        />
      </div>
      <hr />
      <p>
        The answer of above equation (Z) is:
        <span class="text-danger" id="result"></span>
      </p>
    </form>
  </body>
```

```
    <p>
      The answer of above equation (Z) is:
      <span class="text-danger" id="result"></span>
    </p>
  </form>
</body>
<script>
  const _math_functions = {
    x: 0,
    y: 0,
    b: 0,
    z_equation: function () {
      document.getElementById("result").innerText =
        ((3 * this.x + 2 * this.y) / 5) * this.b;
    },
    inputHandler: function (event) {
      this[event.target.id] = parseFloat(event.target.value) || 0;
      this.z_equation();
    },
  };
</script>
</html>
```


Temprature
My Bio
Function
Image Quer
127.0.0.1:5500/Assignment5/Math.html
Maps
Перевести
YouTube
YOUTUBE_DOWN...
All Bookmarks
Working with JS functions
2
1
9
The answer of above equation (Z) is: 14.4

Output