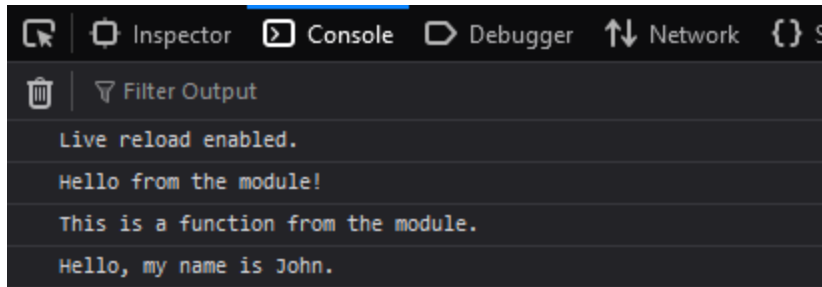


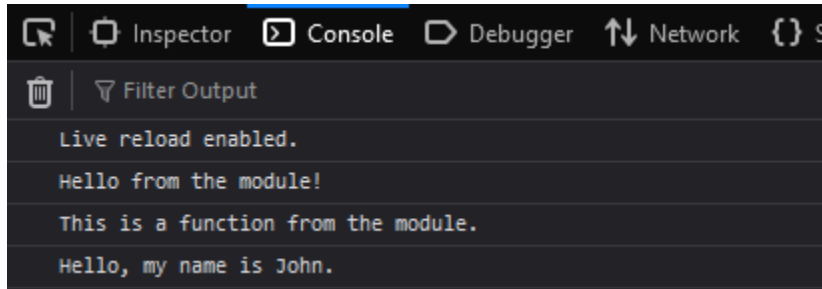
6. Modules introduction, Export and Import:

Task 1: Create a module that exports a function, a class, and a variable

CODE:



OUTPUT:

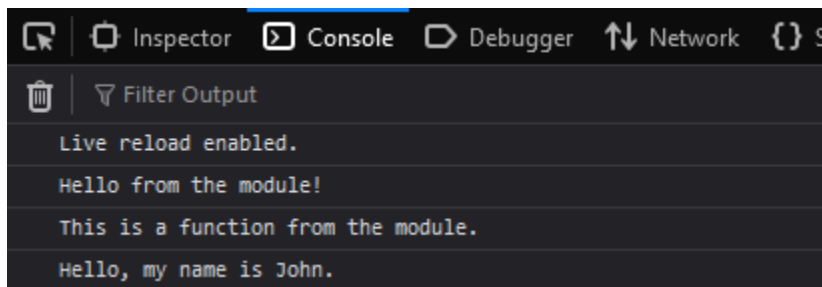


Task 2: Import the module in another JavaScript file and use the exported entities.

CODE:

```
import { myVariable, myFunction, MyClass } from "./myModule.js";
console.log(myVariable);
console.log(myFunction());
const person = new MyClass("John");
console.log(person.greet());
```

OUTPUT:

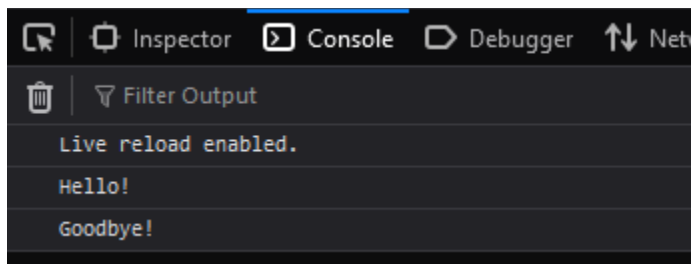


Task 3: Use named exports to export multiple functions from a module.

CODE:

```
export function greet() {  
  return "Hello!";  
}  
export function farewell() {  
  return "Goodbye!";  
}
```

OUTPUT:

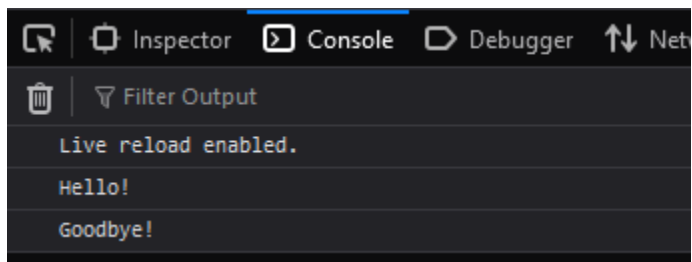


Task 4: Use named imports to import specific functions from a module.

CODE:

```
import { greet, farewell } from "./myModule.js";  
console.log(greet());  
console.log(farewell());
```

OUTPUT:

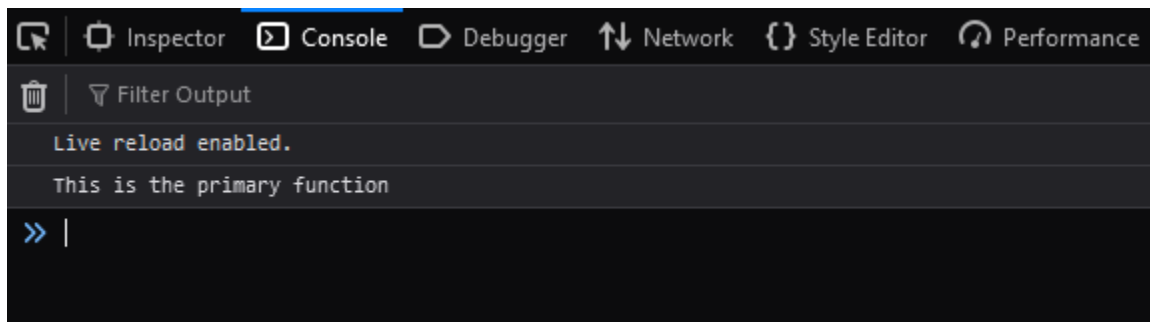


Task 5: Use default export and import for a primary function of a module.

CODE:

```
export default function primaryFunction() {  
    return "This is the primary function";  
}  
  
import primaryFunction from "./myModule.js";  
console.log(primaryFunction());
```

OUTPUT:



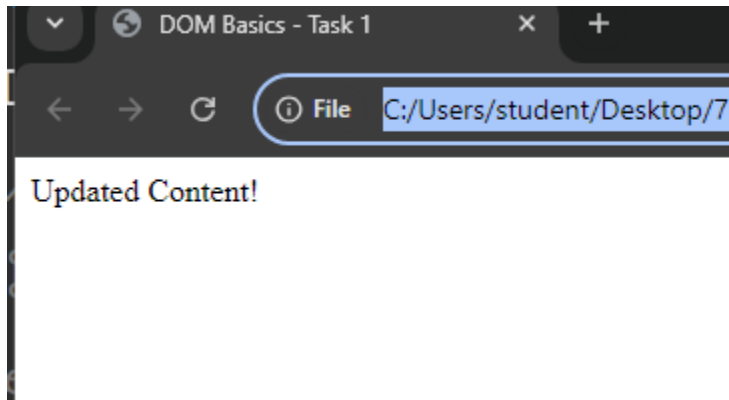
7. Browser: DOM Basics:

Task 1: Select an HTML element by its ID and change its content using JavaScript.

CODE:

```
<!DOCTYPE html>  
<html lang="en">  
  <head>  
    <meta charset="UTF-8" />  
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />  
    <title>DOM Basics - Task 1</title>  
  </head>  
  <body>  
    <div id="myid">Original Content</div>  
    <script>  
      const myElement = document.getElementById("myid");  
      myElement.innerHTML = "Updated Content!";  
    </script>  
  </body>  
</html>
```

OUTPUT:



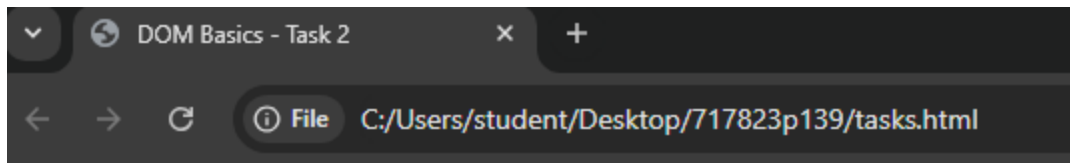
Task 2: Attach an event listener to a button, making it perform an action when clicked.

CODE:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>DOM Basics - Task 2</title>
  </head>
  <body>
    <button id="myButton">Click Me</button>
    <div id="result"></div>

    <script>
      const button = document.getElementById("myButton");
      const resultDiv = document.getElementById("result");
      button.addEventListener("click", function () {
        resultDiv.innerHTML = "Button was clicked!";
      });
    </script>
  </body>
</html>
```

OUTPUT:



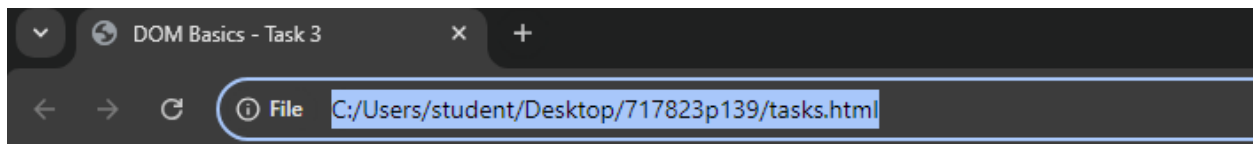
Button was clicked!

Task 3: Create a new HTML element and append it to the DOM.

CODE:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>DOM Basics - Task 3</title>
  </head>
  <body>
    <script>
      const newElement = document.createElement("p");
      newElement.innerHTML = "This is a dynamically created paragraph.";
      document.body.appendChild(newElement);
    </script>
  </body>
</html>
```

OUTPUT:



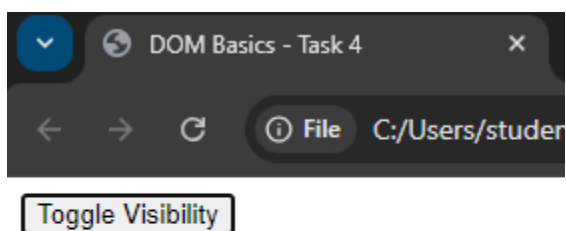
This is a dynamically created paragraph.

Task 4: Implement a function to toggle the visibility of an element.

CODE:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>DOM Basics - Task 4</title>
  </head>
  <body>
    <button id="toggleButton">Toggle Visibility</button>
    <div id="toggleElement">This content can be toggled.</div>
    <script>
      const toggleButton = document.getElementById("toggleButton");
      const toggleElement = document.getElementById("toggleElement");
      function toggleVisibility() {
        if (toggleElement.style.display === "none") {
          toggleElement.style.display = "block";
        } else {
          toggleElement.style.display = "none";
        }
      }
      toggleButton.addEventListener("click", toggleVisibility);
    </script>
  </body>
</html>
```

OUTPUT:

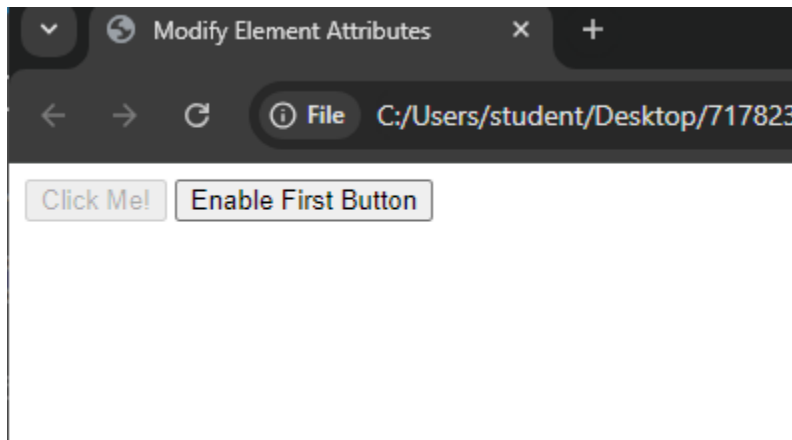


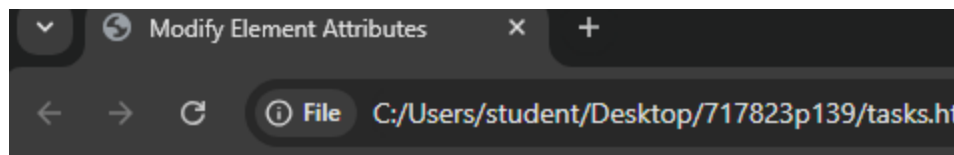
Task 5: Use the DOM API to retrieve and modify the attributes of an element.

CODE:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8" />
    <meta name="viewport" content="width=device-width, initial-scale=1.0" />
    <title>Modify Element Attributes</title>
  </head>
  <body>
    <button id="myButton" class="btn" disabled>Click Me!</button>
    <button onclick="changeButtonAttributes()">Enable First Button</button>
    <script>
      function changeButtonAttributes() {
        const button = document.getElementById("myButton");
        button.removeAttribute("disabled");
        button.setAttribute("class", "btn-enabled");
        button.innerHTML = "You can click me now!";
      }
    </script>
  </body>
</html>
```

OUTPUT:





You can click me now!

Enable First Button