

6. Modules introduction, Export and Import:

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

Code:

```
export function fun(name) {
  return `Welcome ${name}`;
}

export class pavi {
  constructor(name) {
    this.name = name;
  }

  functionName() {
    return `My name is ${this.name}`;
  }
}

// A variable
export const name = "Pavi";
```

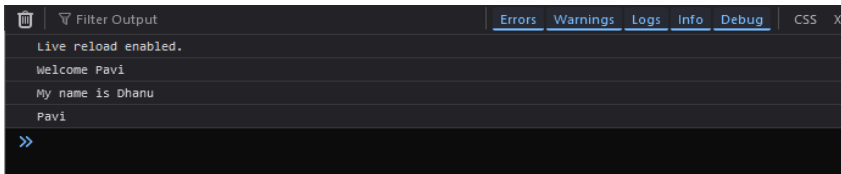
Task 2: Import the module in another JavaScript file and use the exported entities.

Code:

```
import { fun, pavi, name } from './Untitled-1.js';
console.log(fun(name) );
var one = new pavi("Dhanu");
console.log(one.functionName() );
console.log(name);
```

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <script type="module" src="2.js"></script>
</body>
</html>
```

Output:



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

Code:

```
export function add(a, b) {  
  return a + b;  
}  
export function subtract(a, b) {  
  return a - b;  
}  
  
export function multiply(a, b) {  
  return a * b;  
}
```

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

Code:

```
import { add, subtract, multiply } from './Untitled-1.js';  
  
const a = 10;  
const b = 5;  
console.log(`Addition: ${add(a, b)} `);  
console.log(`Subtraction: ${subtract(a, b)} `);  
console.log(`Multiplication: ${multiply(a, b)} `);
```

```
<!DOCTYPE html>  
<html lang="en">  
  <head>  
    <meta charset="UTF-8">  
    <meta name="viewport" content="width=device-width, initial-scale=1.0">  
    <title>Document</title>  
  </head>  
  <body>  
    <script type="module" src="2.js"></script>  
  </body>  
</html>
```

Output:

```
Filter Output
Live reload enabled.
Addition: 15
Subtraction: 5
Multiplication: 50
»
```

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

Code:

```
export default function add(a, b) {
  return a + b;
}
```

```
import add from './Untitled-1.js';

const result = add(5, 3);

console.log(`5 + 3 = ${result}`);
```

```
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <script type="module" src="2.js"></script>
</body>
</html>
```

Output:

```
Filter Output
Live reload enabled.
5 + 3 = 8
» |
```

7. Browser: DOM Basics:

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

Code:

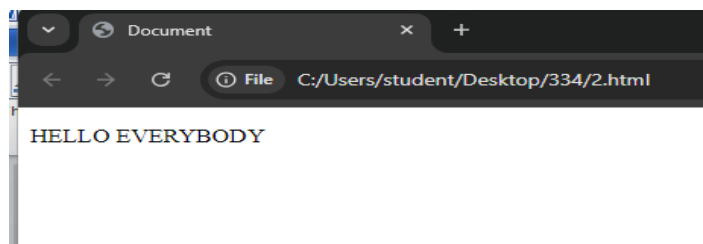
```
<!DOCTYPE html>
<html lang="en">
```

```

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <p id="one">HELLO EVERYONE</p>
  <script >
    var p = document.getElementById("one");
    console.log(p)
    p.textContent="HELLO EVERYBODY"
  </script>
</body>
</html>

```

Output:



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

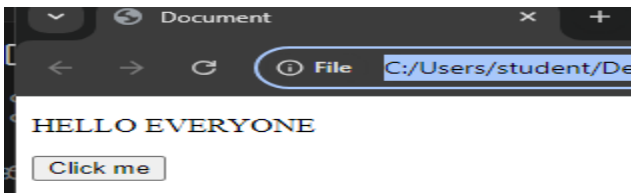
Code:

```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <p id="one">HELLO EVERYONE</p>
  <button onclick="fun()">Click me</button>
  <script >
    function fun(){
      document.writeln("welcome");
    }
  </script>
</body>
</html>

```

Output:



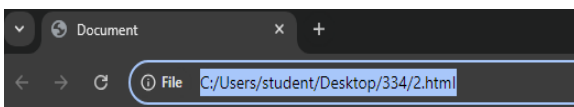
welcome

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>Document</title>
</head>
<body>
  <h1 id="one">HEY YOU</h1>
  <script >
    var p=document.getElementById("one");
    p.append(" what are you doing");
  </script>
</body>
</html>
```

Output:



HEY YOUwhat are you doing

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>Toggle Visibility</title>
```

```

</head>
<body>
  <button onclick="toggleVisibility()">Toggle Visibility</button>

  <div id="myDiv" style="width: 200px; height: 100px; background-color: lightblue;">
    This is a div element!
  </div>

  <script>
    function toggleVisibility() {
      var element = document.getElementById("myDiv");
      element.style.display = (element.style.display === "none" ? "block" : "none");
    }
  </script>
</body>
</html>
</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>DOM API Example</title>
</head>
<body>
  <h1>DOM API Example</h1>

  
  <br>
  <button onclick="modifyAttributes()">Change Image Attributes</button>

```

```
<script>
  var image = document.getElementById("myImage");
  var currentSrc = image.getAttribute("src");
  console.log("Current image source: " + currentSrc);
  function modifyAttributes() {
    image.setAttribute("src", "111.jpeg");
    image.setAttribute("alt", "New Image");
  }
</script>
</body>
</html>
```

Output:



DOM API Example



Change Image Attributes

DOM API Example



Change Image Attributes