

## Promise, Promises chaining:

### TASK 5

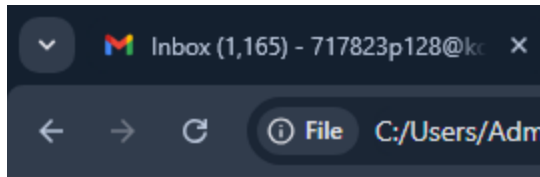
```
<html>
  <body>
    <script>
      function place(order) {
        return new Promise((resolve, reject) => {
          setTimeout(() => {
            document.writeln(`${order} order placed`);
            document.writeln("<br>");
            resolve(order);
          }, 1000)
        })
      }

      function preparefood(order) {
        return new Promise((resolve, reject) => {
          setTimeout(() => {
            document.writeln(`${order} food prepared`);
            document.writeln("<br>");
            resolve(order);
          }, 1000)
        })
      }

      function deliveryfood(order) {
        return new Promise((resolve, reject) => {
          setTimeout(() => {
            document.writeln(`${order} food delivered`);
            document.writeln("<br>");
            resolve(order);
          }, 1000)
        })
      }

      async function orderfood(fooditem) {
        const order = await place(fooditem);
        const preparedFood = await preparefood(order);
        const delivered = await deliveryfood(preparedFood);
        document.writeln("Order process complete!");
      }

      orderfood("Pizza");
    </script>
  </body>
</html>
```



Pizza order placed  
Pizza food prepared  
Pizza food delivered  
Order process complete!

## Async/await:

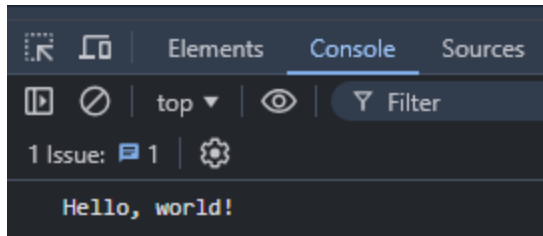
### TASK 1

```
<html>
  <body>
    <script>
      async function fetchData() {
        return new Promise((resolve, reject) => {
          setTimeout(() => {
            const data = { message: 'Hello, world!' };
            resolve(data);
          }, 1000);
        });
      }

      async function main() {
        try {
          const data = await fetchData();
          console.log(data.message);
        } catch (error) {
          console.error(error);
        }
      }

      main();

    </script>
  </body>
</html>
```

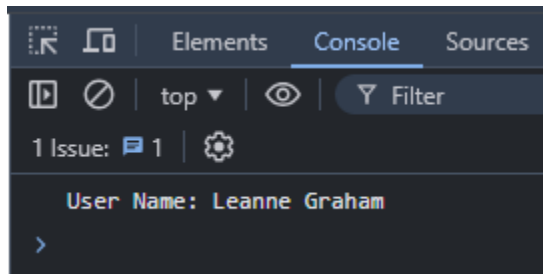


## TASK 2

```
<html>
  <body>
    <script>
      async function fetchUserData(userId) {
        try {
          const response = await fetch(`https://jsonplaceholder.typicode.com/users/${userId}`);
          if (!response.ok) {
            throw new Error('Network response was not ok');
          }
          const userData = await response.json();

          console.log(`User Name: ${userData.name}`);
        } catch (error) {
          console.error('Error fetching data:', error);
        }
      }

      fetchUserData(1);
    </script>
  </body>
</html>
```



## Recursion and stack:

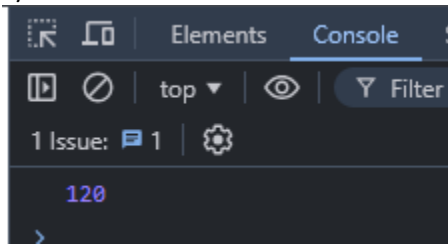
### TASK 1

```
<html>
  <body>
    <script>
      function factorial(n){
```

```

        if(n === 0){
            return 1;
        }
        else{
            return n * factorial (n - 1);
        }
    }
}
console.log(factorial(5));
</script>
</body>
</html>

```

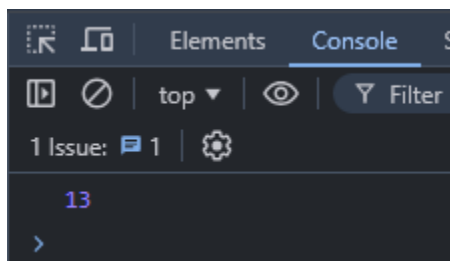


## TASK 2

```

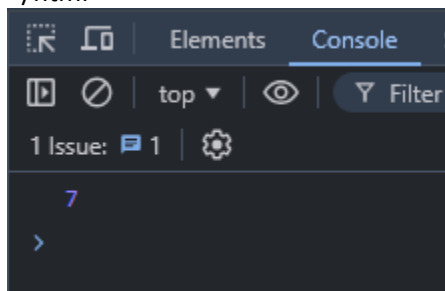
<html>
<body>
<script>
function fibonacci(n){
    if(n === 0){
        return 0;
    }
    else if(n === 1){
        return 1;
    }
    else{
        return fibonacci(n - 1) + fibonacci(n - 2);
    }
}
console.log(fibonacci(7));
</script>
</body>
</html>

```



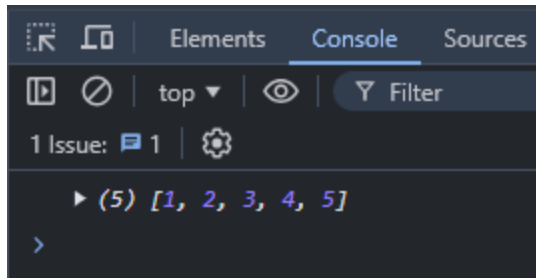
### TASK 3

```
<html>
  <body>
    <script>
      function climb(n){
        if(n === 1){
          return 1;
        }
        else if(n === 2){
          return 2;
        }
        else if(n === 0){
          return 1;
        }
        else{
          return climb(n - 1) + climb(n - 2) + climb(n - 3);
        }
      }
      console.log(climb(4));
    </script>
  </body>
</html>
```



### TASK 4

```
<html>
  <body>
    <script>
      function flattenArray(arr) {
        return arr.flat(Infinity);
      }
      console.log(flattenArray([1, [2, [3, [4]]], 5]));
    </script>
  </body>
</html>
```

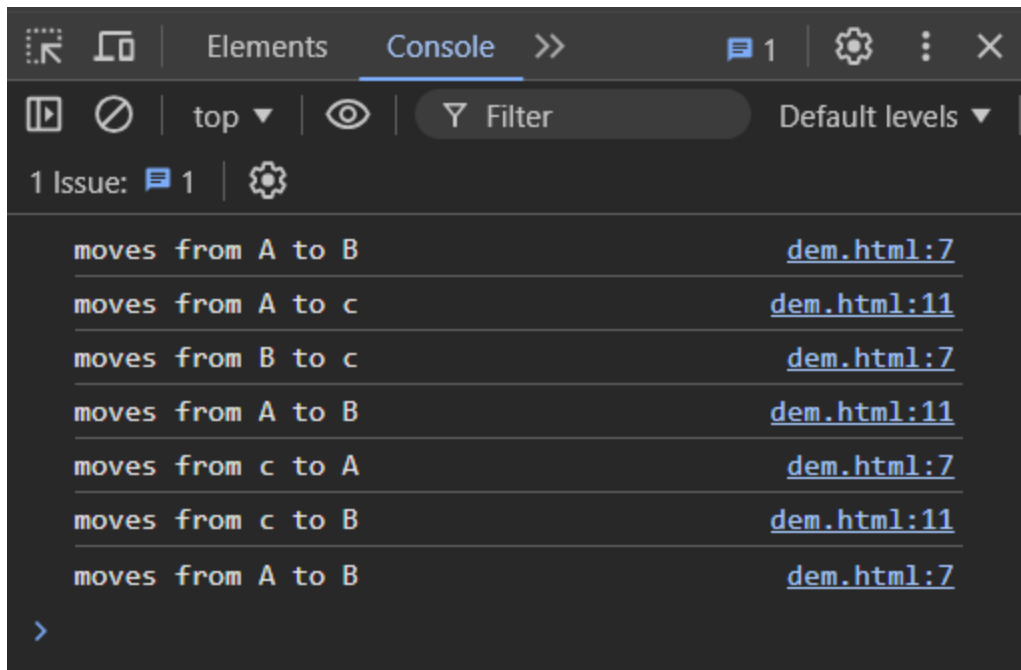


## Recursion and stack:

### TASK 5

```
<html>
<body>
  <script>
    function towerofHanoi(n,source,destination,auxillary)
    {
      if(n === 1){
        console.log(`moves from ${source} to ${destination}`);
        return;
      }
      towerofHanoi(n - 1,source,auxillary,destination);
      console.log(`moves from ${source} to ${destination}`);

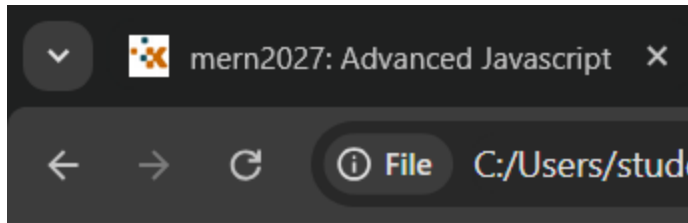
      towerofHanoi(n - 1,auxillary,destination,source);
    }
    const n = 3;
    towerofHanoi(n,'A','B','c');
  </script>
</body>
</html>
```



## Browser: DOM Basics:

### TASK 1

```
<!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="header">Headerr</h1>
  <button onclick="changecontent()">change the content</button>
  <script>
    function changecontent(){
      document.getElementById("header").textContent = "new textContent";
    }
  </script>
</body>
</html>
```

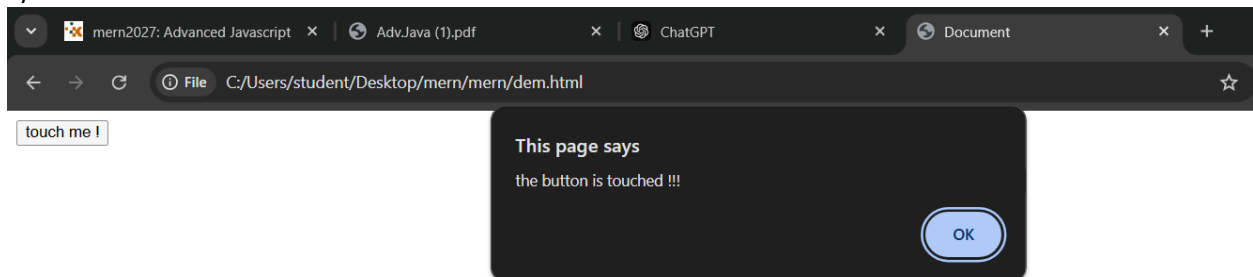


# new textContent

change the content

## TASK 2

```
<!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>
  <button id="clickbutton">click me !</button>
  <script>
    document.getElementById("clickbutton").addEventListener("click",function(){
      alert("the button is clicked !!!")
    });
  </script>
</body>
</html>
```



## TASK 3

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

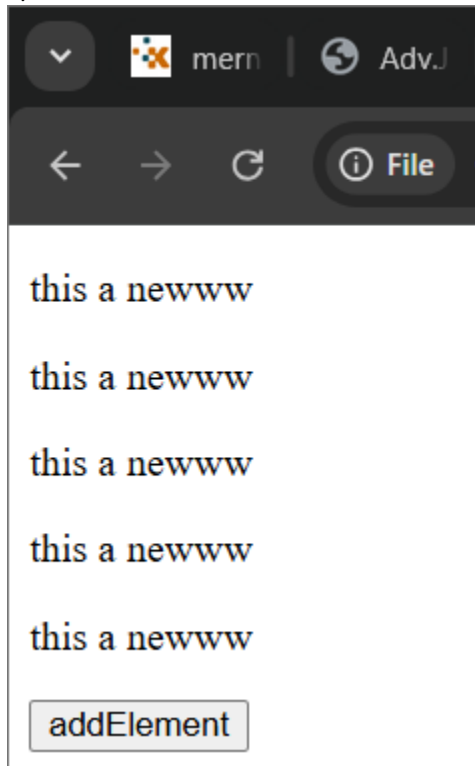


```

<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Document</title>
</head>
<body>
  <div id="container"></div>
  <button onclick="addElement()">addElement</button>
  <script>
    function addElement(){
      let neue = document.createElement("p");
      neue.textContent = "this a newww";

      document.getElementById("container").appendChild(neue);
    }
  </script>
</body>
</html>

```



#### TASK 4

```

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

```

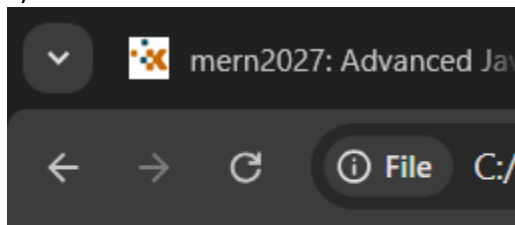
```

<title>Task 4</title>
</head>
<body>
  <div id="toggleElement">This is a toggled element!</div>
  <button onclick="toggleVisibility()">Toggle Visibility</button>

  <script>
    function toggleVisibility() {
      let element = document.getElementById("toggleElement");

      if (element.style.display === "none") {
        element.style.display = "block";
      } else {
        element.style.display = "none";
      }
    }
  </script>
</body>
</html>

```



This is a toggled element!

Toggle Visibility

## TASK 5

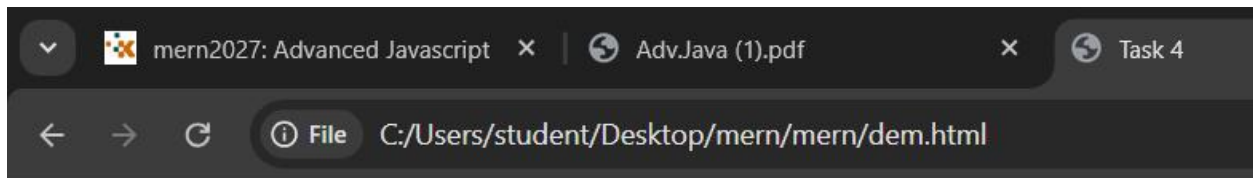
```

<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>Task 4</title>
</head>
<body>
  
  <br><br><button onclick="changeimg()">change image</button>

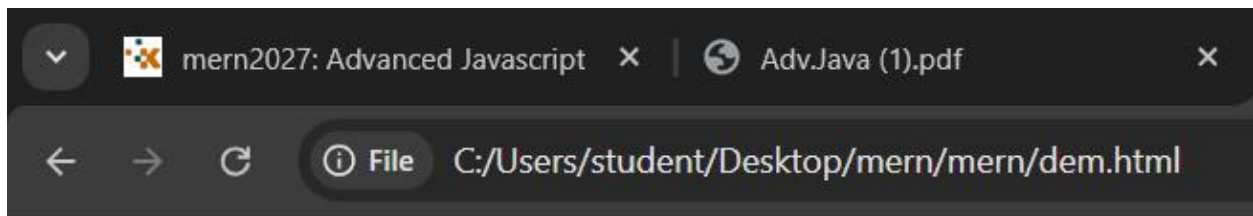
  <script>
    function changeimg() {
      let image = document.getElementById("image");

```

```
    image.setAttribute("src","https://images.pexels.com/photos/15154328/pexels-photo-15154328/free-photo-of-a-person-standing-on-the-boat.jpeg?auto=compress&cs=tinysrgb&w=400&lazy=load");
    image.setAttribute("alt","neww");
    console.log(image.src);
    console.log(image.alt);
  }
</script>
</body>
</html>
```



change image



change image