

Web Programming 1_Lab_12

Eng Rana Mohamed

rana.9237.gabr@gmail.com

Introduction

What is JavaScript ?

- Programming Language.
- Working on client side & server side.
- Implement complex features on a web page by making it interactive.

What JavaScript can do ?

- Control Multimedia (Audio, Video)
- Web Browser Games
- Mobile Apps

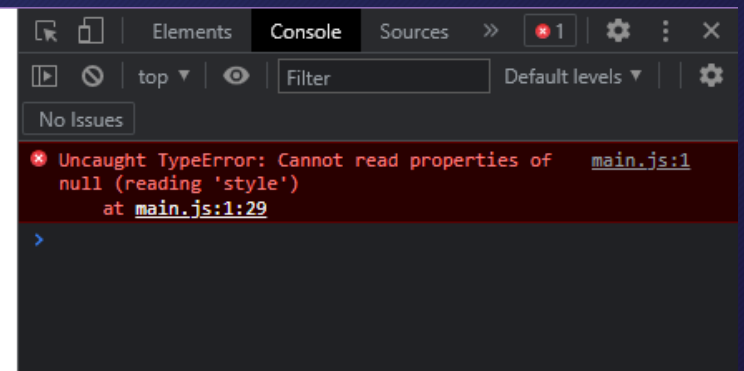
Where to put the code

JavaScript in <head>

```
<!DOCTYPE html>
<html>
<head>
  <title>JavaScript</title>
  <script src="main.js"></script>
</head>
<body>
  <h1>Page Title</h1>
</body>
</html>
```

```
document.querySelector("h1").style.color = "Blue";
```

Page Title




```
<!DOCTYPE html>
<html>
<head>
  <script>
    function myFunction() {
      document.getElementById("demo").innerHTML = "Paragraph changed.";
    }
  </script>
</head>
<body>
  <h2>Demo JavaScript in Head</h2>
  <p id="demo">A Paragraph</p>
  <button type="button" onclick="myFunction()">Try it</button>
</body>
</html>
```

Demo JavaScript in Head

A Paragraph

Try it

Demo JavaScript in Head

Paragraph changed.

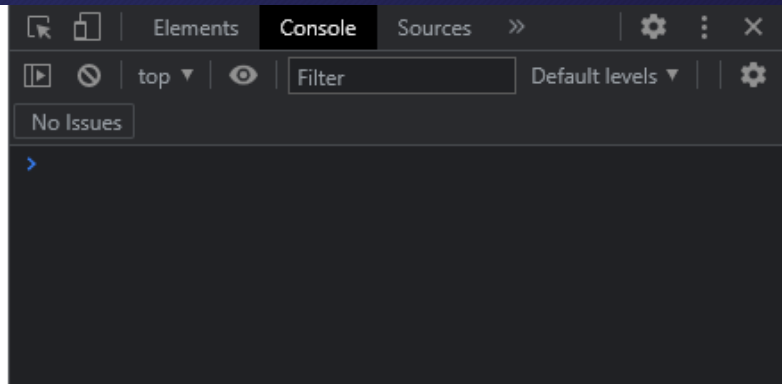
Try it

JavaScript in <body>

```
<!DOCTYPE html>
<html>
<head>
  <title>JavaScript</title>
</head>
<body>
  <h1>Page Title</h1>
  <script src="main.js"></script>
</body>
</html>
```

```
document.querySelector("h1").style.color = "Blue";
```

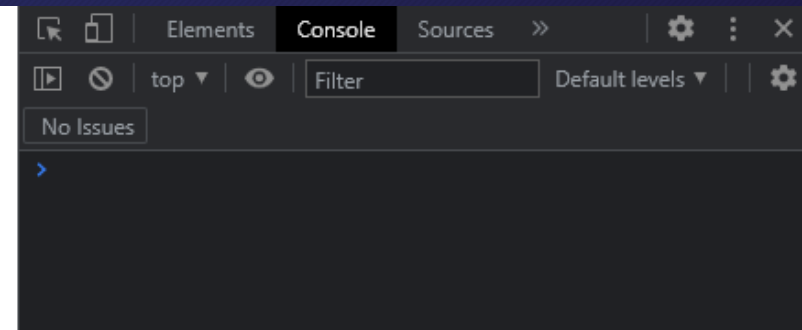
Page Title



```
<!DOCTYPE html>
<html>
<head>
  <title>JavaScript</title>
  <script src="main.js"></script>
</head>
<body>
  <h1>Page Title</h1>
</body>
</html>
```

```
window.onload = function(){
  document.querySelector("h1").style.color = "Blue";
};
```

Page Title




```
<!DOCTYPE html>
<html>
<body>
  <h2>Demo JavaScript in Body</h2>
  <p id="demo">A Paragraph</p>
  <button type="button" onclick="myFunction()">Try it</button>

  <script>
    function myFunction() {
      document.getElementById("demo").innerHTML = "Paragraph changed.";
    }
  </script>
</body>
</html>
```

Demo JavaScript in Head

A Paragraph

Try it

Demo JavaScript in Head

Paragraph changed.

Try it

JavaScript Output

JavaScript Display Possibilities

- JavaScript can "display" data in different ways:
 - ❑ Writing into an HTML element, using `innerHTML`.
 - ❑ Writing into the HTML output using `document.write()`.
 - ❑ Writing into an alert box, using `window.alert()`.
 - ❑ Writing into the browser console, using `console.log()`.

Using innerHTML

```
<!DOCTYPE html>
<html>
<body>
  <h1>My First Web Page</h1>
  <p>My First Paragraph</p>
  <p id="demo"></p>

  <script>
    document.getElementById("demo").innerHTML = 5 + 6;
  </script>
</body>
</html>
```

My First Web Page

My First Paragraph

11

Using document.write()


```
<!DOCTYPE html>
<html>
<body>
  <h1>My First Web Page</h1>
  <p>My first paragraph.</p>

  <script>
    document.write(5 + 6);
  </script>
</body>
</html>
```

My First Web Page

My first paragraph.

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<h1>My First Web Page</h1>
```

```
<p>My first paragraph.</p>
```

```
<button type="button" onclick="document.write(5 + 6)">Try it</button>
```

```
</body>
```

```
</html>
```

My First Web Page

My first paragraph.

Try it

11

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

```
<script src="main.js"></script>
```

```
</body>
```

```
</html>
```

```
document.write("<h1>Hello Page</h1>");
```

Hello Page

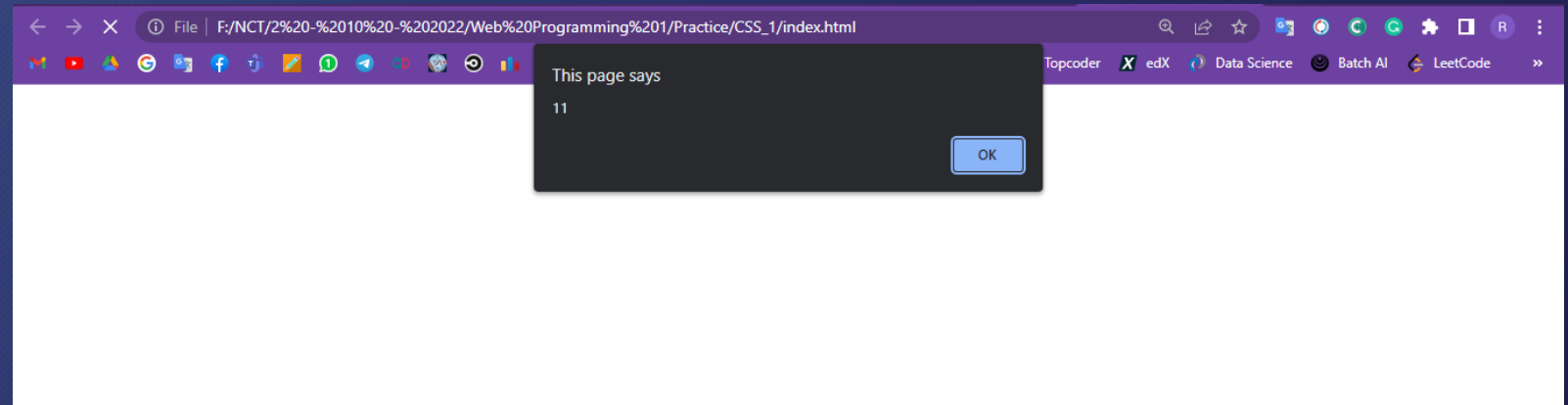
Using `window.alert()`

```
<!DOCTYPE html>
<html>
<body>
```

```
<h1>My First Web Page</h1>
<p>My first paragraph.</p>
```

```
<script>
window.alert(5 + 6);
</script>
```

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



My First Web Page

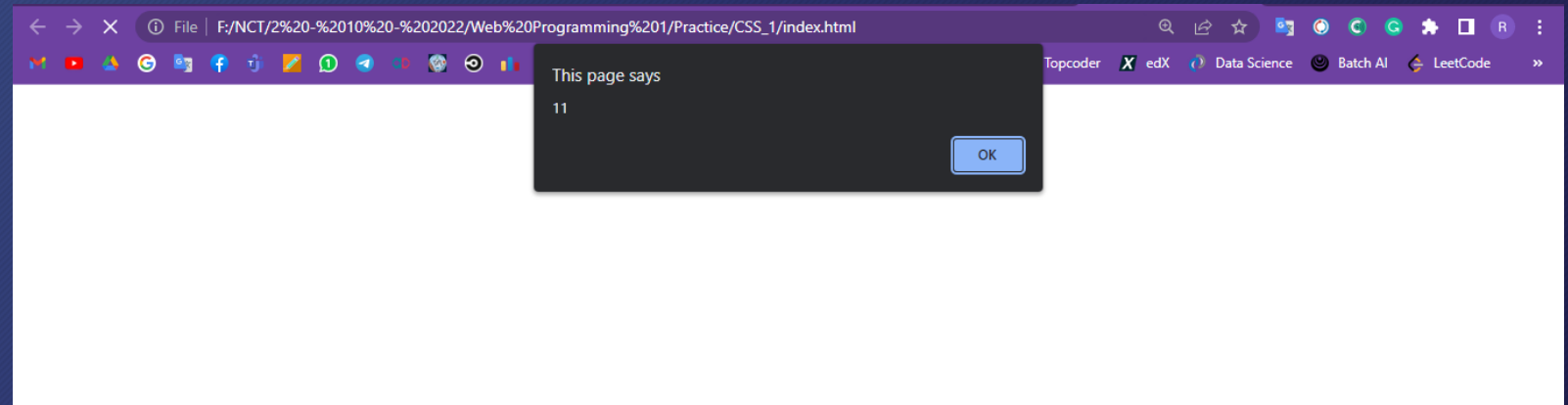
My first paragraph.

```
<!DOCTYPE html>
<html>
<body>
```

```
<h1>My First Web Page</h1>
<p>My first paragraph.</p>
```

```
<script>
alert(5 + 6);
</script>
```

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



My First Web Page

My first paragraph.

Using console.log()

```
<!DOCTYPE html>
```

```
<html>
```

```
<body>
```

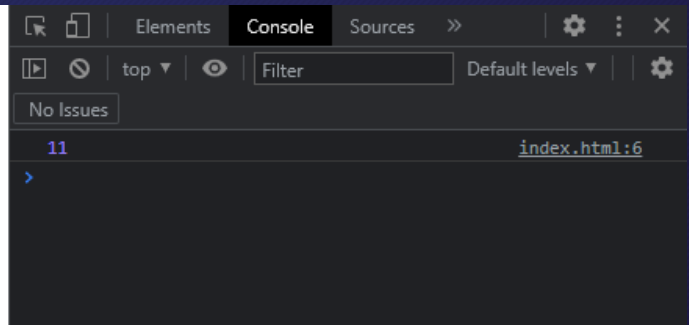
```
<script>
```

```
console.log(5 + 6);
```

```
</script>
```

```
</body>
```

```
</html>
```

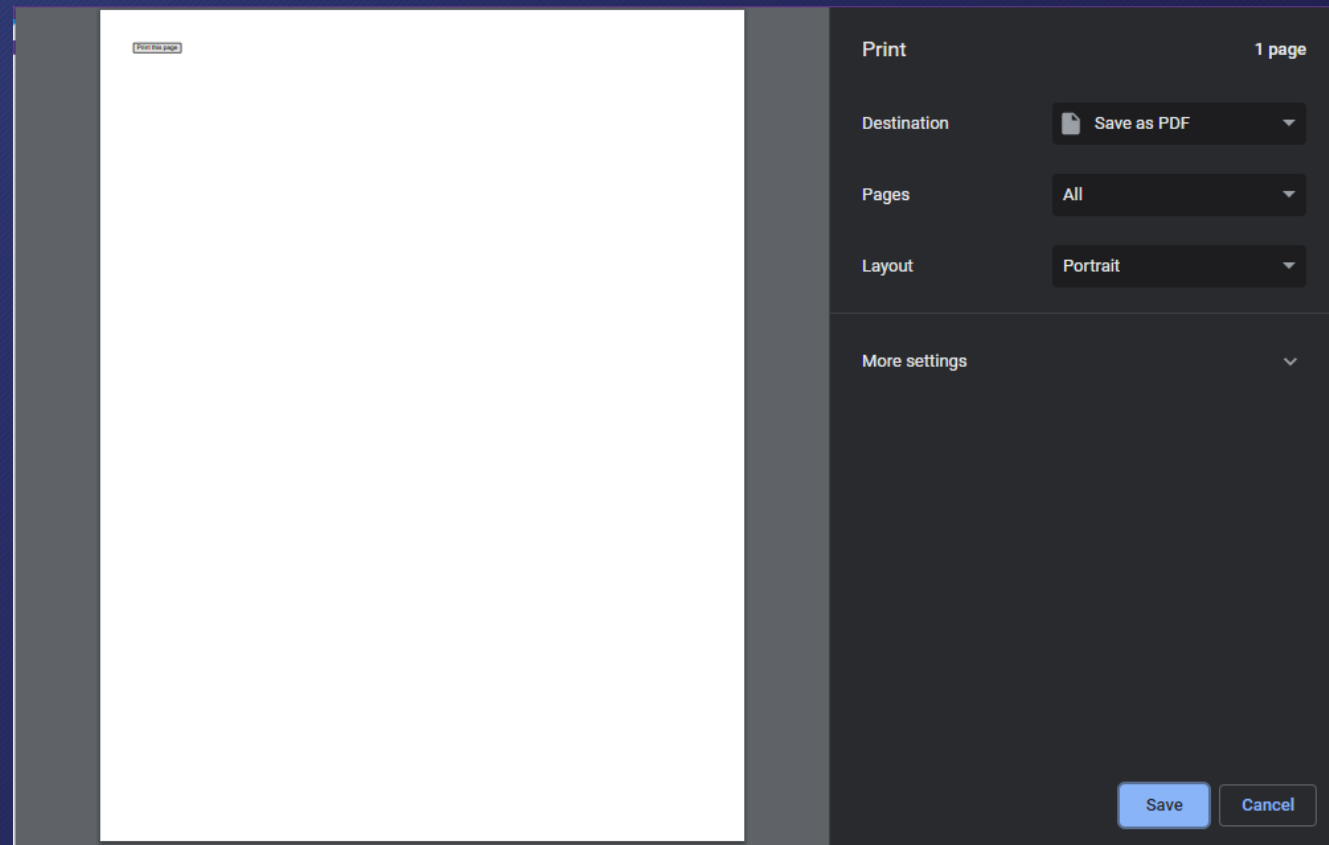


JavaScript Print


```
<!DOCTYPE html>  
<html>  
<body>
```

```
<button onclick="window.print()">Print this page</button>
```

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

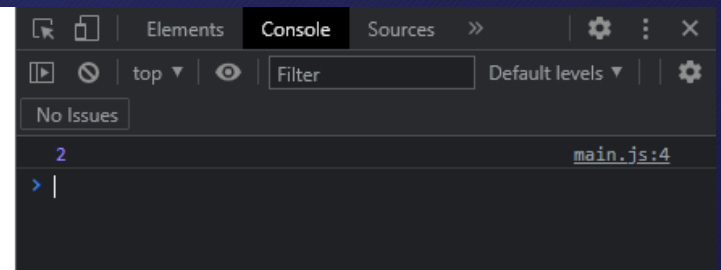


Var

```
<!DOCTYPE html>
<html>
<body>
  <script src="main.js"></script>
</body>
</html>
```

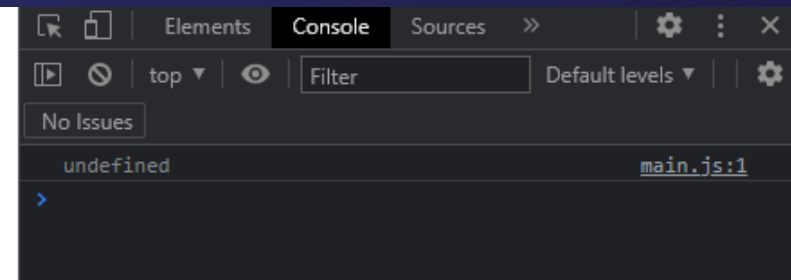
```
var a = 1;
var a = 2;

console.log(a);
```



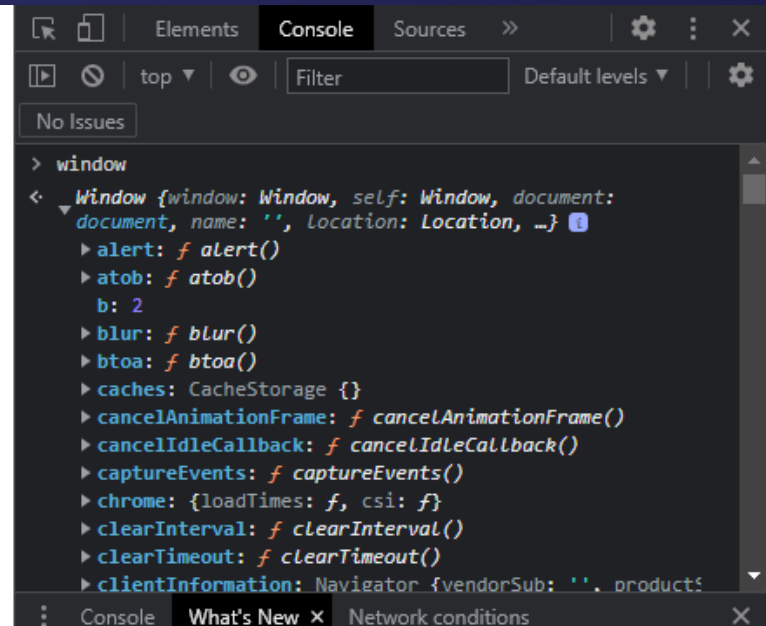

```
<!DOCTYPE html>
<html>
<body>
  <script src="main.js"></script>
</body>
</html>
```

```
console.log(a);
var a = 1;
```



```
<!DOCTYPE html>
<html>
<body>
  <script src="main.js"></script>
</body>
</html>
```

```
var b = 2;
```

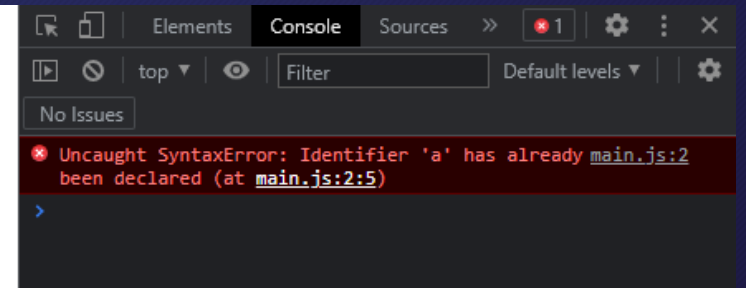


Let


```
<!DOCTYPE html>
<html>
<body>
  <script src="main.js"></script>
</body>
</html>
```

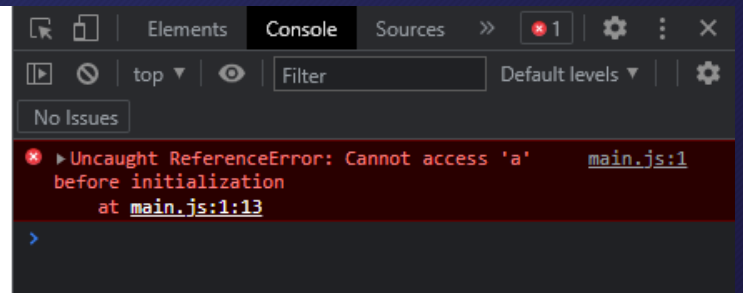
```
let a = 1;
let a = 2;

console.log(a);
```



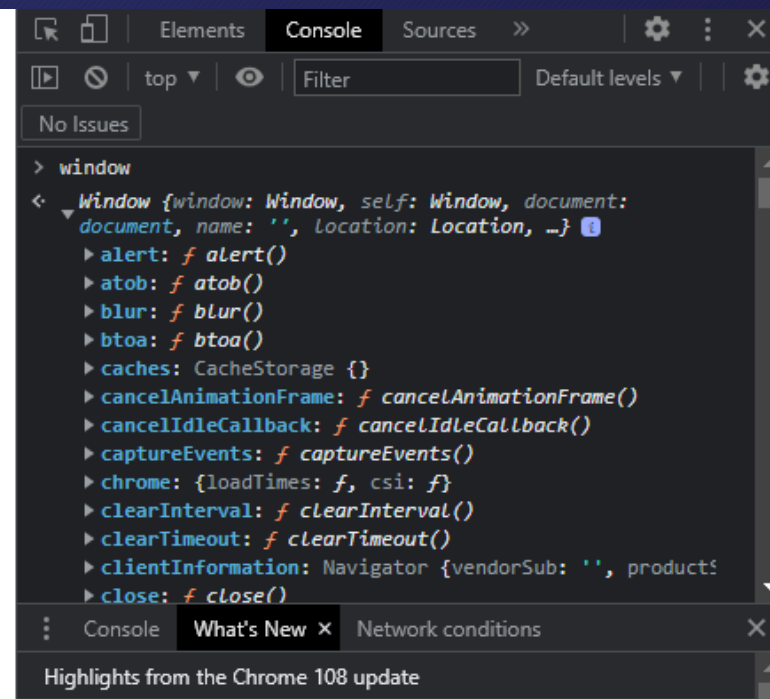
```
<!DOCTYPE html>
<html>
<body>
  <script src="main.js"></script>
</body>
</html>
```

```
console.log(a);
let a = 1;
```



```
<!DOCTYPE html>
<html>
<body>
  <script src="main.js"></script>
</body>
</html>
```

```
let b = 2;
```

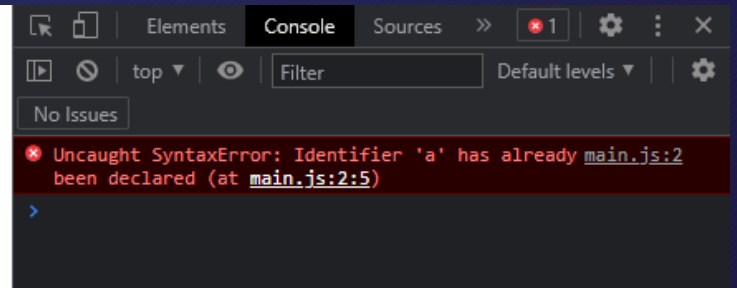


Const

```
<!DOCTYPE html>
<html>
<body>
  <script src="main.js"></script>
</body>
</html>
```

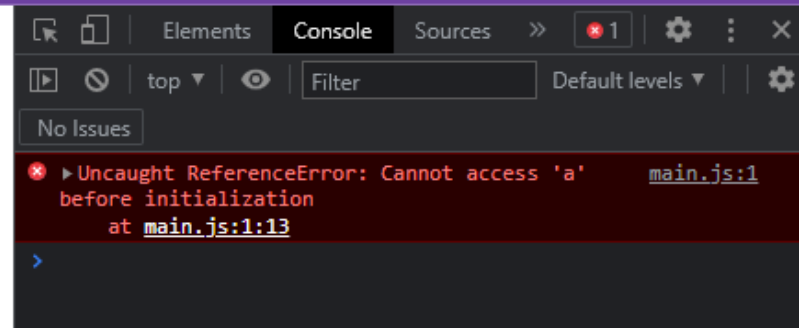
```
const a = 1;
const a = 2;

console.log(a);
```



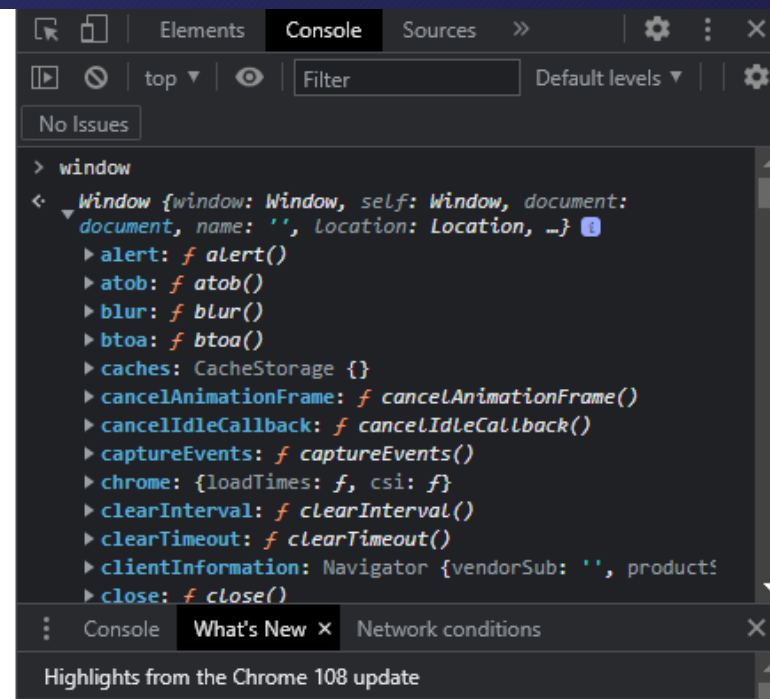
```
<!DOCTYPE html>
<html>
<body>
  <script src="main.js"></script>
</body>
</html>
```

```
console.log(a);
const a = 1;
```




```
<!DOCTYPE html>
<html>
<body>
  <script src="main.js"></script>
</body>
</html>
```

```
const b = 2;
```



Events

```
<!DOCTYPE html>
<html>
<body>
  <p id="demo"></p>
  <button onclick="document.getElementById('demo').innerHTML = Date()">The time is?</button>
</body>
</html>
```

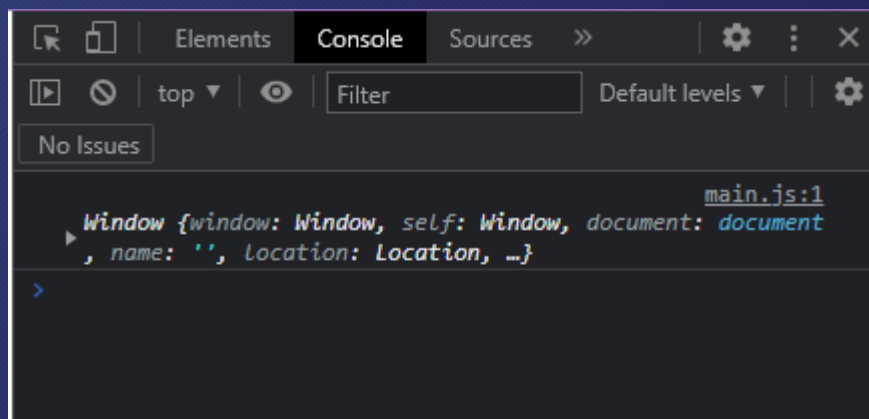
The time is?

Tue Dec 20 2022 10:10:43 GMT+0200 (Eastern European Standard Time)

The time is?


```
<!DOCTYPE html>
<html>
<body>
  <script src="main.js"></script>
</body>
</html>
```

`console.log(this);`



```
<!DOCTYPE html>
<html>
<body>
  <button onclick="this.innerHTML = Date()">The time is?</button>
</body>
</html>
```

The time is?

Tue Dec 20 2022 10:13:05 GMT+0200 (Eastern European Standard Time)

```
<!DOCTYPE html>
<html>
<body>
  <button id="demo">Click</button>
  <script src="main.js"></script>
</body>
</html>
```

```
document.getElementById("demo").onclick = function(){
  console.log(this);
};
```




```
<!DOCTYPE html>
<html>
<body>
  <p id="demo"></p>
  <button onclick="displayDate()">The time is?</button>
  <script src="main.js"></script>
</body>
</html>
```

The time is?

```
function displayDate(){
  document.getElementById("demo").innerHTML = Date()
}
```

Tue Dec 20 2022 10:20:41 GMT+0200 (Eastern European Standard Time)

The time is?