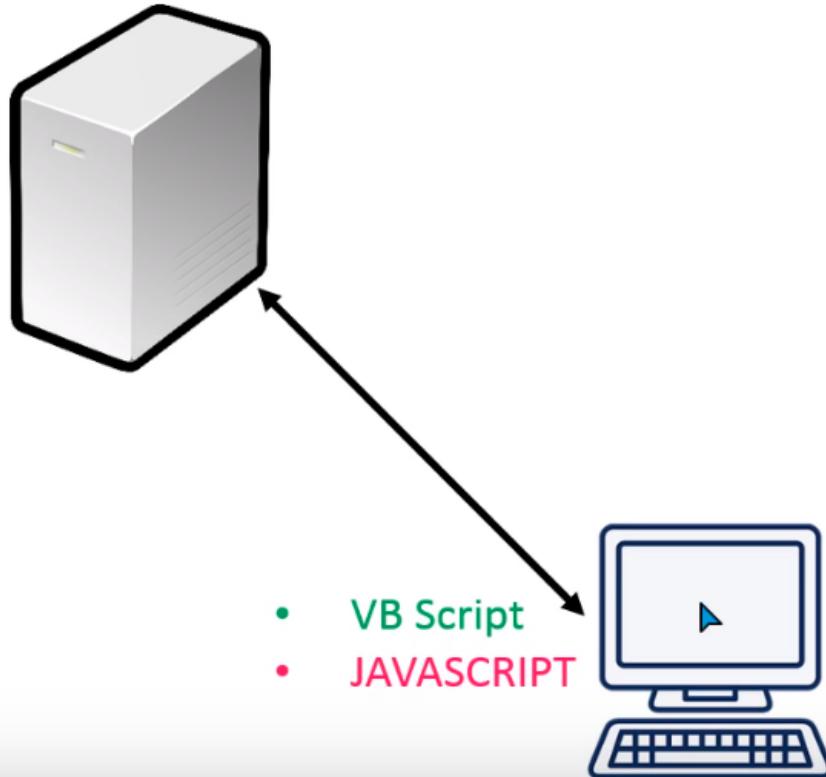
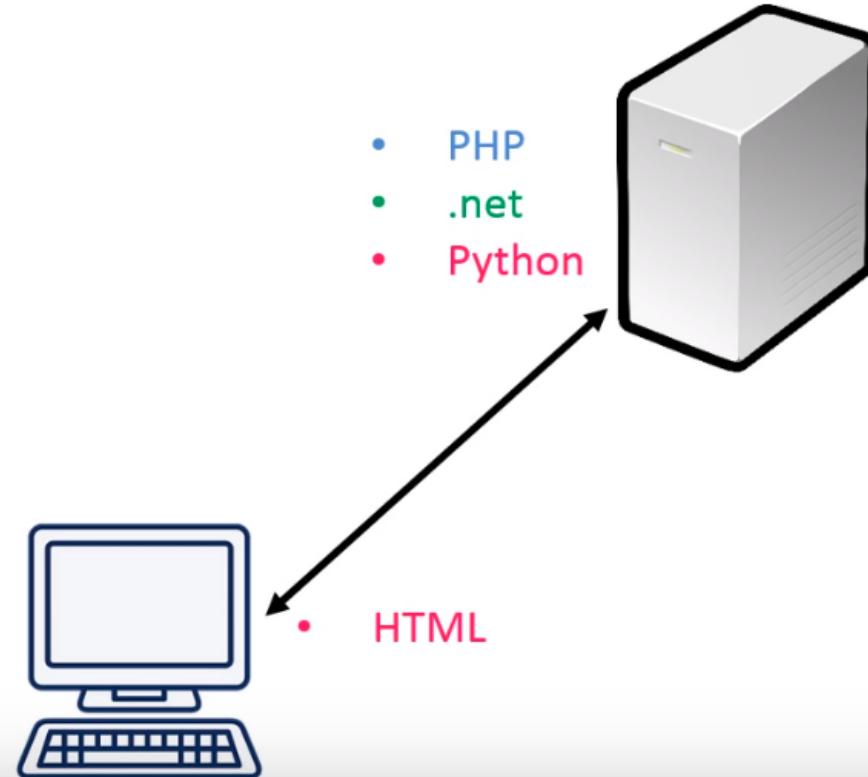


Web based Scripting Language

Client Side Script



Server Side Script



3 Essential Parts To Website Development

1) HTML (HyperText Markup Language)

- >> Adds structure to our web pages.
- >> Tags used for e.g. <div>, <section>, <p>

HTML



CSS



2) CSS (Cascading Style Sheets)

- >> Adds styles to our webpages.
- >> E.g. colors, border, margin, image, positions etc.
- >> Can use ids, classes or direct tags to reference HTML tags

3) JS (JavaScript)

- >> Adds programming to our web pages.
- >> Adds functionality, e.g. client side validation, effects & events etc.

Document Object Model - DOM

HTML Document

```
<html>
  <head>
    <title>My Title </title>
  </head>
  <body>
    <h1>Heading</h1>
    <div id="div1">
      <p>P Tag 1</p>
    </div>
    <div id="div2">
      <p class="p2">P Tag 2</p>
    </div>
  </body>
</html>
```

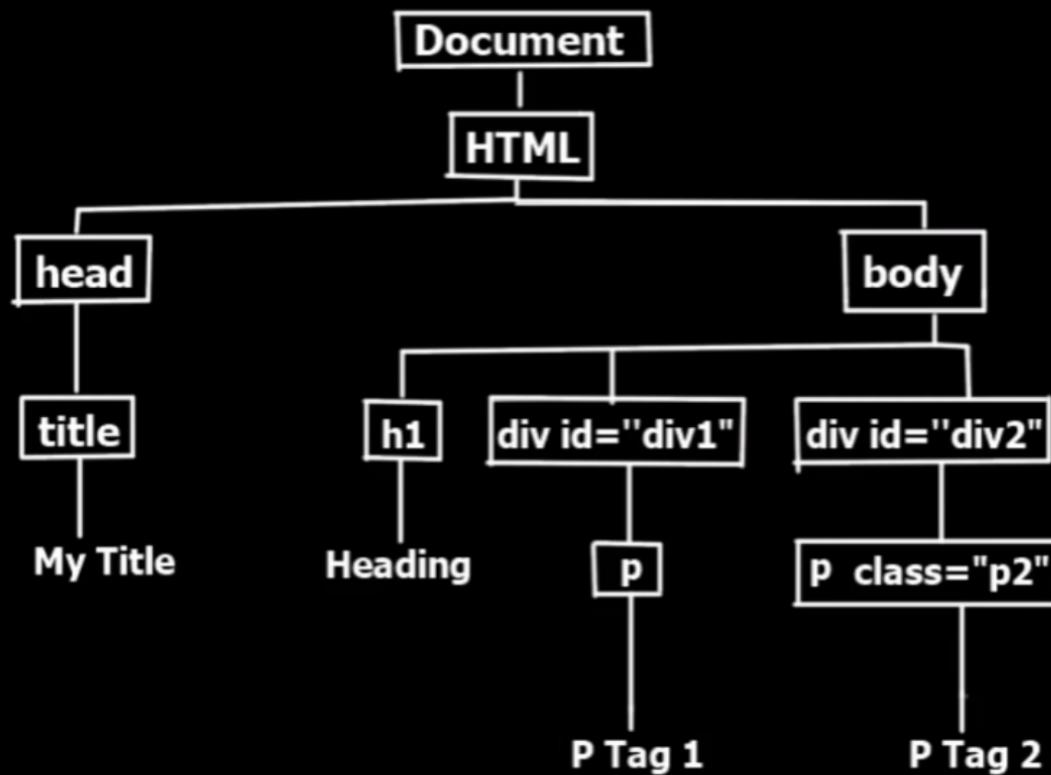
```
index.html
1 <html>
2   <head>
3     <title>My HTML Document</title>
4   </head>
5
6   <body>
7     <h1>Heading</h1>
8     <div id="div1">
9       <p>P Tag 1</p>
10    </div>
11    <div id="div2">
12      <p class="p2">P Tag 2</p>
13    </div>
14  </body>
15 </html>
```

Document Object Model - DOM

HTML Document

```
><html>
><head> +
><title>My Title </title>
></head>
><body>
><h1>Heading</h1>
><div id="div1">
><p>P Tag 1</p>
></div>
><div id="div2">
><p class="p2">P Tag 2</p>
></div>
></body>
</html>
```

DOM - JS view

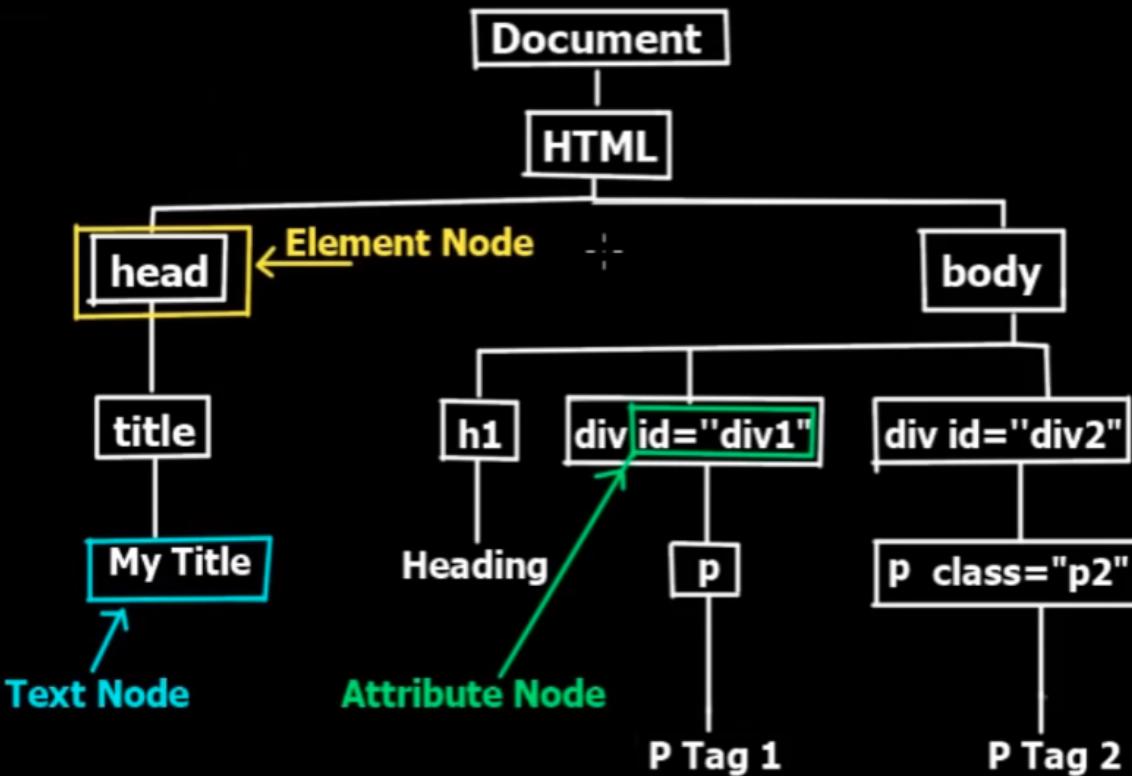


Document Object Model - DOM

HTML Document

```
<html>
  <head>
    <title>My Title </title>
  </head>
  <body>
    <h1>Heading</h1>
    <div id="div1">
      <p>P Tag 1</p>
    </div>
    <div id="div2">
      <p class="p2">P Tag 2</p>
    </div>
  </body>
</html>
```

DOM - JS view



Why We Learn JavaScript ?



JavaScript is a **Event Based** Programming Language

- Click
- Double Click
- Right Click
- Mouse Hover
- Mouse Out
- Drag Drop
- Key Press
- Key Up
- Load
- Unload
- Resize
- Scroll

Benefits of learning JavaScript:



Web Development

- jQuery
- Angular Js
- React Js
- VueJS
- NodeJS

Desktop App Development

- Electron JS

Mobile App Development

- Angular Js
- React Js
- VueJS
- React Native
- NodeJS

Uses of JavaScript in Web Development :



- Dropdown Menu
- Animated Sliders
- Maps ▶
- Chart - Graphs
- Pop-up window
- Audio Players
- Video Players
- Zoom effect
- Animated Gallery
- Form Validations
- Accordions
- Calendar

Editor for JavaScript :



- Notepad
- Notepad++
- VS Code
- Sublime
- Atom

Web Browser for JavaScript :



- Google Chrome
- Mozilla Firebox
- Internet Explorer
- Safari



2 ways to add JS

Embed JS in HTML

External JS File

```
1 <html>
2   <head>
3     <title>My title</title>
4     <script>
5       I
6     </script>
7   </head>
8
9
10  <body>
11
12  </body>
13
14 </html>
15
```

2 Ways to Implement JavaScript :



- Inpage JavaScript
- External JavaScript

Inpage JavaScript



```
<html>
  <head>
    <script>
      ...
    </script>
  </head>
  <body>
    <h1>Yahoo Baba</h1>
  </body>
</ html>
```

Inpage JavaScript



```
<html>
  <head>
    <script>
      ▶
    </script>
  </head>
  <body>
    <h1>Yahoo Baba</h1>
    <script>
    </script>
  </body>
```

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     document.write("Hello World");
7   </script>
8 </head>
9 <body>
10
11 </body>
12 </html>
13
```



```
<!DOCTYPE html>
<html>
<head>
  <title>JavaScript</title>
  <script>
    document.write("Hello World");
    document.write("Hello from Yahoo Baba");
  </script>
</head>
<body>

</body>
</html>
```

Hello WorldHello from Yahoo Baba



```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     document.write("Hello World ");
7     document.write("Hello from Yahoo Baba");
8   </script>
9 </head>
10 <body>
11
12
13 <script>
14   document.write("Hey!!");
15 </script>
16 </body>
17 </html>
18
```

127.0.0.1:3000/1-implementation.html

Hello World Hello from Yahoo Baba Hey!!

```
① implementation.html ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫ ⑬ ⑭ ⑮ ⑯ ⑰ ⑱
```

```
<!DOCTYPE html>
<html>
<head>
  <title>JavaScript</title>
  <script>
    document.write("Hello World ");
    document.write("Hello from Yahoo Baba");
  </script>
</head>
<body>
<h1>Hello</h1>

<script>
  document.write("Hey!!");
</script>
</body>
</html>
```

← → ⌂ ① 127.0.0.1:3000/1 implementation... Paus

Hello World Hello from Yahoo Baba

Hello

Hey!!

External JavaScript File



JavaScript
myScript.js



```
<head>  
    <script src="myScript.js"></script>  
</head>
```

JavaScript

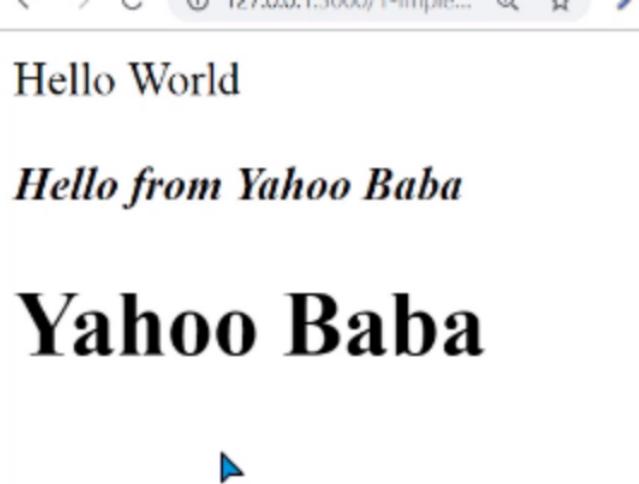
HTML Tag in JS

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     document.write("Hello World<br>");
7     document.write("Hello from Yahoo Baba");
8   </script>
9 </head>
0 <body>
1   <h1>Yahoo Baba</h1>
2 </body>
3 </html>
4
```

Hello World
Hello from Yahoo Baba

Yahoo Baba

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     document.write("Hello World<br><br>");
7     document.write("<i><b>Hello from Yahoo Baba</b></i>");
8   </script>
9 </head>
10 <body>
11   <h1>Yahoo Baba</h1>
12 </body>
13 </html>
14
```



JavaScript Comments

Single Line Comment :



```
<script>  
Document.write("Hello World"); // here is comment  
</script>
```

Multiple Line Comment :



```
<script>
```

```
Document.write("Hello World"); /* here is comment
```

```
Which can be on multiple lines */
```

```
</script>
```

JavaScript Variables



Yahoo baba

```
document.write("Yahoo Baba");  
document.write("Yahoo Baba");  
document.write("Yahoo Baba");
```

Yahoo babas

```
document.write("Yahoo Baba");
```

```
document.write("Yahoo Baba");
```

```
document.write("Yahoo Baba");
```

Use of Variables :



A = Yahoo baba

```
document.write(A);
```

```
document.write(A);
```

```
document.write(A);
```

Three Types of Comments :



- Var
- Let
- Const

How to use Variables :



```
<script>
```

```
    var x = "yahoo baba";
```

```
</script>
```

Variable Name



Variable Value

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var z = "Hello World";
7   </script>
8 </head>
9 <body>
10
11 </body>
12 </html>
13
```

variables.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var z = "Hello World"; 
7
8     document.write(z);
9   </script>
10 </head>
11 <body>
12
13 </body>
14 </html>
15
```



127.0.0.1:3000/variables.ht...

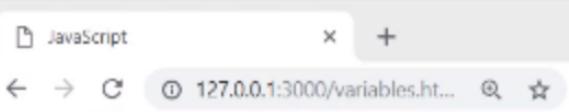


Hello World

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <title>JavaScript</title>
5      <script>
6          var z = "Hello World";
7
8          document.write('z');
9      </script>           1
0  </head>
1  <body>
2
3      </body>
4  </html>
5
```

variables.html

```
1  <!DOCTYPE html>
2  <html>
3  <head>
4      <title>JavaScript</title>
5      <script>
6          var z = "Hello World";
7
8          document.write('z');
9      </script>
10     </head>
11     <body>
12
13     </body>
14     </html>
15
```



Hello ?

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var z = "Hello World";
7     var x = 100;
8
9     document.write(z);
10    document.write(x);
11  </script>
12 </head>
13 <body>
14
15 </body>
16 </html>
17
```

← → ⌂ ⓘ 127.0.0.1:3000/variables.ht... 🔍 ☆ 🔍

Hello World100

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title>JavaScript</title>
5     <script>
6         var z = "Hello World";
7         var x = 100.25;
8         z = "Wow";
9         document.write(z);
10        //document.write(x);
11     </script>
12 </head>
13 <body>
14
15 </body>
16 </html>
17
```

```
<!DOCTYPE html>
<html>
<head>
  <title>JavaScript</title>
  <script>
    var z = "Hello World";
    var x = 100.25;
    z = "Wow";|
    document.write(z);
    //document.write(x);
  </script>
</head>
<body>
</body>
</html>
```

Wow

```
variables.html 1 < 2 → C ① 127.0.0.1:3000/variables.ht... 3 ⌂ 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18
```

```
<!DOCTYPE html>
<html>
<head>
    <title>JavaScript</title>
    <script>
        var z = "Hello World";
        var x = 100.25;
        z = "Wow";
        z = 85;
        document.write(z);
        //document.write(x);
    </script>
</head>
<body>
</body>
</html>
```

85

How to write a Variable Name :



Write Way

- firstname
- first_name
- first-name
- firstName
- firstname99

Wrong Way

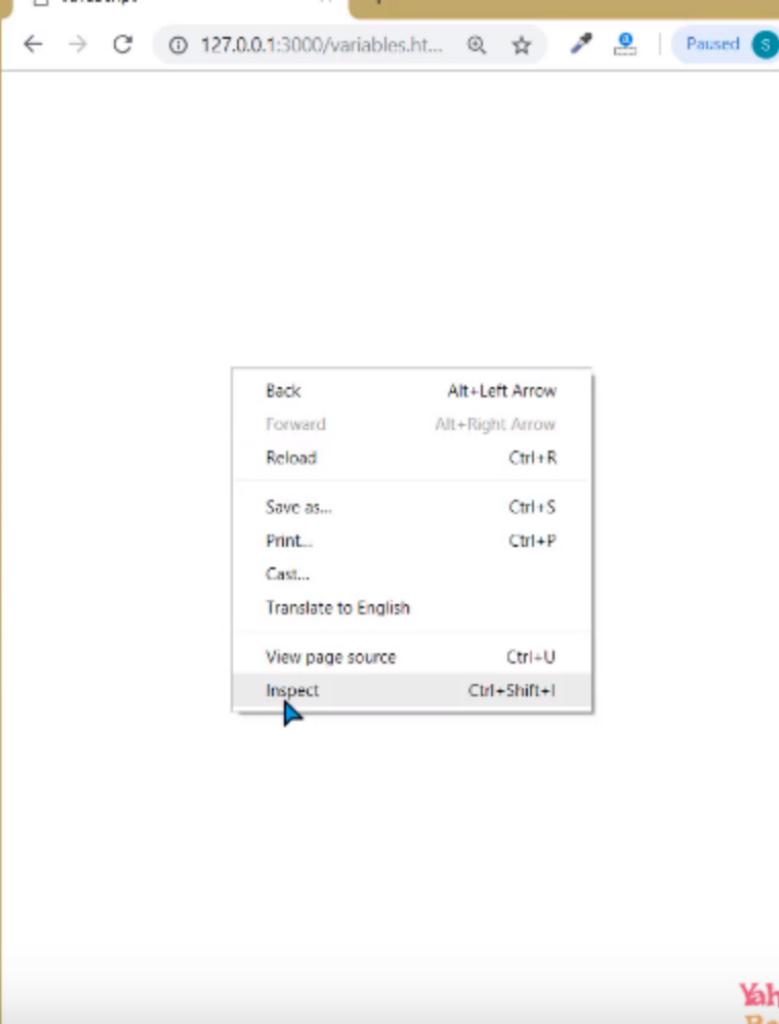
- first name
- 99firstname

```
Variables.html 127.0.0.1:3000/variables.ht... 🔍 ⭐
```

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var 34firstName = "Hello World";
7
8     document.write(34firstName);
9
10    </script>
11  </head>
12  <body>
13
14  </body>
15  </html>
16
```

```
variables.html
```

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var firstName = "Hello World";
7
8     document.write(firstName);
9
10  </script>
11 </head>
12 <body>
13
14 </body>
15 </html>
16
```



A screenshot of a web browser showing a context menu. The menu items are:

Back	Alt+Left Arrow
Forward	Alt+Right Arrow
Reload	Ctrl+R
Save as...	Ctrl+S
Print...	Ctrl+P
Cast...	
Translate to English	
View page source	Ctrl+U
Inspect	Ctrl+Shift+I

The 'Inspect' option is highlighted with a blue arrow pointing to it.

```
variables.html
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var 34firstName = "Hello World";
7
8     document.write(34firstName);
9
10    </script>
11  </head>
12  <body>
13
14 </body>
15 </html>
16
```

The screenshot shows a browser window with developer tools open. The address bar indicates the page is 127.0.0.1:3000/variables.html. The console tab is selected, showing the following error message:

```
Uncaught SyntaxError: Invalid or unexpected token
Live reload enabled.
```

The error occurs at line 6, column 10 of the file variables.html:6. The browser's status bar at the bottom right shows "variables.html:40".

variables.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var firstName34 = "Hello World";
7
8     document.write(firstName34);
9
10  </script>
11 </head>
12 <body>
13
14 </body>
15 </html>
16
```

Hello World

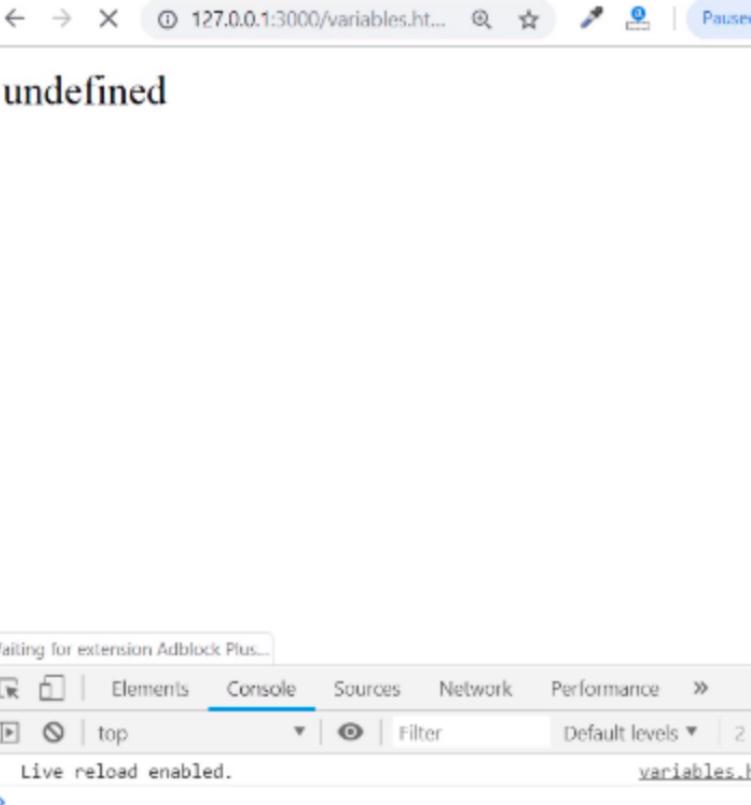
Elements Console Sources Network Performance »

top Filter Default levels 3 hidden

Live reload enabled.

variables.html:40

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var first , second;
7
8     document.write(first);
9
10  </script>
11 </head>
12 <body>
13
14 </body>
15 </html>
16
```



```
variables.html 127.0.0.1:3000/variables.html JavaScript 17
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     let firstname = "Yahoo";
7     //firstname = "Baba";
8
9     document.write(firstname);
10
11   </script>
12 </head>
13 <body>
14
15 </body>
16 </html>
```

JavaScript

127.0.0.1:3000/variables.html

Yahoo

Elements Console Sources Network Performance

top Filter Default levels

Live reload enabled.

variables.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     let firstname = "Yahoo";
7     let| firstname = "Baba";
8
9     document.write(firstname);
10
11    </script>
12 </head>
13 <body>
14
15 </body>
16 </html>
```

JavaScript

Paused S

127.0.0.1:3000/variables.html

Console

Elements Sources Network

Uncaught SyntaxError: Identifier 'firstname' has already been declared variables.html:7

Live reload enabled.

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var firstname = "Yahoo";
7     var firstname = "Baba";
8
9     document.write(firstname);
0
1   </script>
2 </head>
3 <body>
4
5 </body>
6 </html>
```

A screenshot of a web browser window. The address bar shows the URL "127.0.0.1:3000/variables.html". The main content area displays the word "Baba". At the bottom, the developer tools are open, with the "Console" tab selected. The console output shows "Live reload enabled." and "variables".

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     let firstname = "Yahoo";
7     // let firstname = "Baba";
8
9     document.write(firstname);
10
11    // constant variable
12    const second = "Hello";
13    document.write(second);
14
15  </script>
16 </head>
17
18 <body>
19 </body>
</html>
```

YahooHello

Elements Console Sources Network Performance

top Filter Default level

Live reload enabled.

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     let firstname = "Yahoo";
7     // let firstname = "Baba";
8
9     //document.write(firstname);
0
1     // constant variable
2     const second = "Hello";
3     second ="World";
4     document.write(second);
5   </script>
6 </head>
7 <body>
8
9 </body>

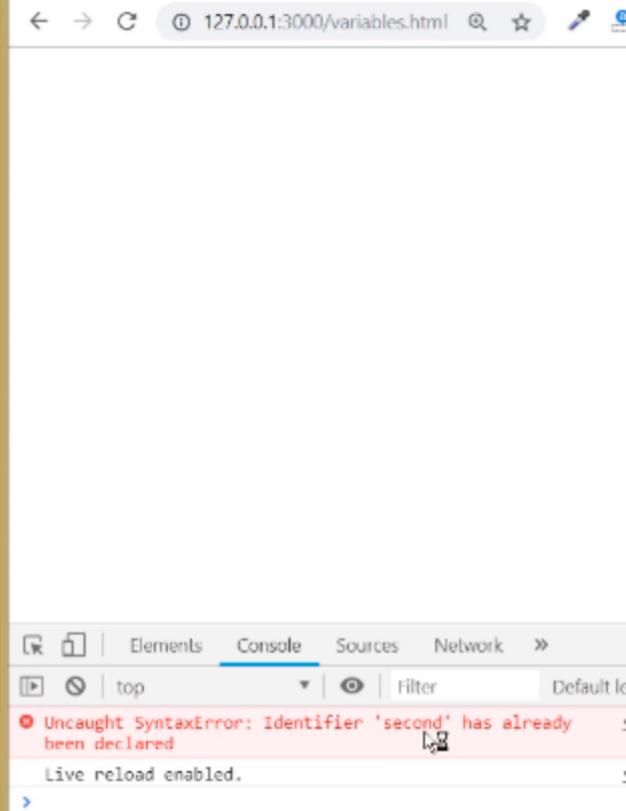
```

The screenshot shows a browser window with developer tools open. The address bar indicates the page is 127.0.0.1:3000/variables.html. The developer tools interface has tabs for Elements, Console, Sources, and Network. The Console tab is active, showing the error message: "Uncaught TypeError: Assignment to constant variable." followed by the file path "variables.html:13". Below the error message, it says "Live reload enabled.".

```
← → ⌂ ⓘ 127.0.0.1:3000/variables.html ⚡ ⚡ Paused
Elements Console Sources Network »
top Filter Default levels ▾ | 2 h
✖ Uncaught TypeError: Assignment to constant variable.
  at variables.html:13
variables.html
Live reload enabled.
variables.html

```

```
Variables.html
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     let firstname = "Yahoo";
7     // let firstname = "Baba";
8
9     //document.write(firstname);
10
11    // constant variable
12    const second = "Hello";
13    const second = "World";
14    document.write(second);
15  </script>
16 </head>
17 <body>
18
19 </body>
```



Difference between Variable Types:



Var

Let

Const

```
var x = "Hello";
```

```
var x = "World";
```

```
x = "WoW";
```

```
let x = "Hello";
```

```
let x = "World";
```

```
x = "WoW";
```

```
const x = "Hello";
```

```
const x = "World";
```

```
x = "WoW";
```

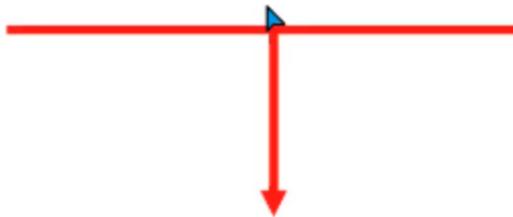
JavaScript

Data Types

What is Data Types :



```
var x = "Hello World";
```



Type of Value is **Data Type**

Different Type of Data Types :



var x = "Hello World"; → String

var x = 25; → Number

var x = true; → Boolean



var x = ["HTML", "CSS", "JS"]; → Array

var x = {first: "Jane", last: "Doe"}; → Object

var x = null; → Null

var x; → Undefined

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var x = "Yahoo Baba";
7
8     document.write(x);
9     document.write("<br>");
10    document.write(typeof x);
11  </script>
12 </head>
13 <body>
14
15 </body>
16 </html>
17
```



```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var x = 'Y';
7     x = -34.50;
8     x = false;
9
10    document.write(x);
11    document.write("<br>");
12    document.write(typeof x);
13  </script>
14 </head>
15 <body>
16
17 </body>
18 </html>
19
```

false
boolean

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var x = 'Y';
7     x = -34.50;
8     x = false;
9     x = undefined;
10
11    document.write(x);
12    document.write("<br>");
13    document.write(typeof x);
14  </script>
15 </head>
16 <body>
17
18 </body>
19 </html>
```

undefined
undefined

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var x = 'Y';
7     x = -34.50;
8     x = false;
9     x = undefined;
10    var z;
11    // document.write(x);
12    document.write("<br>");
13    document.write(typeof z);
14  </script>
15 </head>
16 <body>
17
18 </body>
19 </html>
```

undefined

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var x = 'Y';
7     x = -34.50;
8     x = false;
9     x = undefined;
10
11    x = ["HTML","CSS","JS"];
12    document.write(x);
13    document.write("<br>");
14    document.write(typeof x);
15  </script>
16 </head>
17 <body>
18
19 </body>
```

HTML,CSS,JS
object

variables.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var x = 'Y';
7     x = -34.50;
8     x = false;
9     x = undefined;
10
11    x = ["HTML", "CSS", "JS"];
12
13    x = {
14      name : "Yahoo Baba",
15      country : "India"
16    }
17    document.write(x);
18    document.write("<br>");
19    document.write(typeof x);
```

[object Object]
object

JavaScript Arithmetic Operators



Different Type of Arithmetic Operators :



Operator	Description
+	Addition
-	Subtraction
*	Multiplication
**	Exponentiation
/	Division
%	Modulus (Remainder)
++	Increment
--	Decrement

```
<!DOCTYPE html>
<html>
<head>
    <title>JavaScript</title>
    <script>
        var a = 10;
        var b = 3;
        var c = a ** b;
        document.write(c);
    </script>
</head>
<body>
</body>
</html>
```

← → ⌂ ⓘ 127.0.0.1:3000/arithmetic... 🔍 ☆ ⚙ 20 25 Paused ⚙

1000

$$10 \times 10 \times 10 = 1000$$

```
arithmetic-operators.html — E:\YahooBaba\Learn-JavaScript — Atom
  arithmetic-operators.html •

1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var a = 10;
7     var b = 3;
8     a++;           I
9     document.write(c);
10    </script>
11 </head>
12 <body>
13
14 </body>
15 </html>
16
```

```
JavaScript x +  
← → C ① 127.0.0.1:3000/arithmetic... 🔍 ⭐ 🖊 ① 489 20 JS 2  
1000  
  
a = a + 1
```

```
arithmetic-operators.html
```

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4     <title>JavaScript</title>
5     <script>
6         var a = 10;
7         var b = 3;
8         a++;
9         document.write(a + b);
10    </script>
11 </head>
12 <body>
13
14 </body>
15 </html>
16
```

```
JavaScript
```

```
14
```

arithmetic-operators.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var a = 10;
7     var b = 3;
8     document.write(a + b);
9     document.write("<br>");
10    a++;
11    document.write(a + b);
12  </script>
13 </head>
14 <body>
15
16 </body>
17 </html>
```

127.0.0.1:3000/arithmetic...

13

14

```
arithmetic-operators.html — E:\Yanoobaba\Learn-JavaScript — Atom
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var a = 10;
7     var b = 3;
8     document.write(a + b);
9     document.write("<br>");
10    a--;
11    document.write(a + b);
12  </script>
13 </head>
14 <body>
15
16 </body>
17 </html>
18
```

JavaScript

13
12

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var a = 10;
7     var b = 3;
8     var c = a + b * 2
9     document.write(c);
10    </script>
11 </head>
12 <body>
13
14 </body>
15 </html>
16
```

arithmetic-operators.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var a = 10;
7     var b = 3;
8     var c = (a + b) * 2
9     document.write(c);
10    </script>
11  </head>
12  <body>
13
14  </body>
15 </html>
16
```

← → ⌂ ① 127.0.0.1:3000/arithmetic

26

JavaScript Assignment Operators



Different Type of Assignment Operators :



Operator	Example	Same As
= ↳	x = y	x = y
+=	x += y	x = x + y
-=	x -= y	x = x - y
*=	x *= y	x = x * y
/=	x /= y	x = x / y
%=	x %= y	x = x % y
**=	x **= y	x = x ** y

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var a = 10;
7     var b = 3;
8     a **= b;
9     document.write(a);
10    </script>
11 </head>
12 <body>
13
14 </body>
15 </html>
16
```

← → ⌂ ① 127.0.0.1:3000/arithmetic... 🔍 ☆ 🖊 1 20 JS [] | Paused 5

1000

JavaScript Comparison Operators



Comparison Operator :



```
var x = 15;
```

```
var y = 25;
```

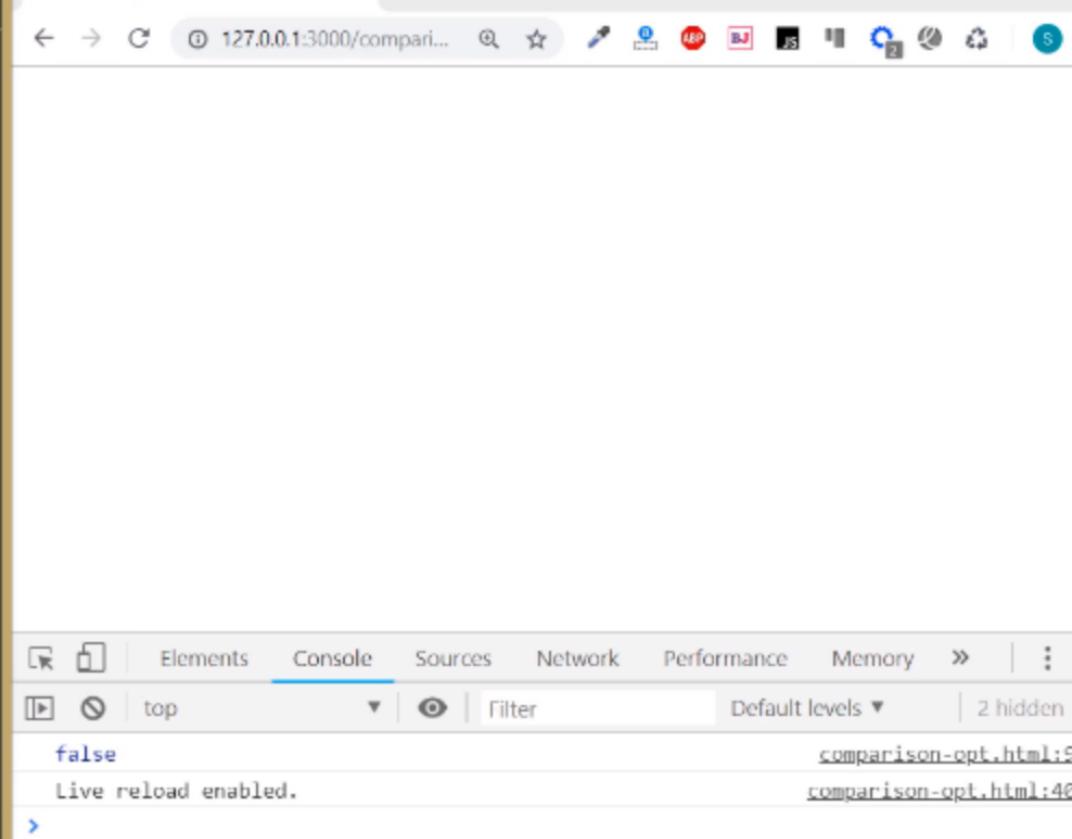
x > y
↓

False

Different Type of Comparison Operators :



Operator	Description
<code>==</code>	equal to
<code>====</code>	equal value and equal type
<code>!=</code>	not equal
<code>!==</code>	not equal value or not equal type
<code>></code>	greater than
<code><</code>	less than
<code>>=</code>	greater than or equal to
<code><=</code>	less than or equal to



Switch Statement in JavaScript :



```
switch (expression) {  
    case condition 1: statement(s)  
        break;  
  
    case condition 2: statement(s)  
        break;  
  
    case condition 3: statement(s)  
        break;  
  
    default: statement(s)  
}
```

JavaScript

Google Chrome

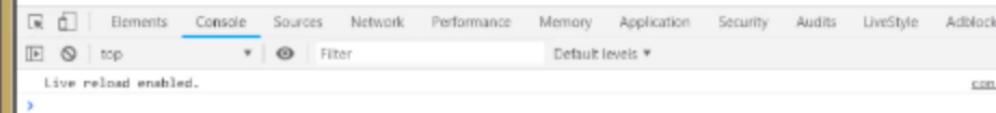
Console



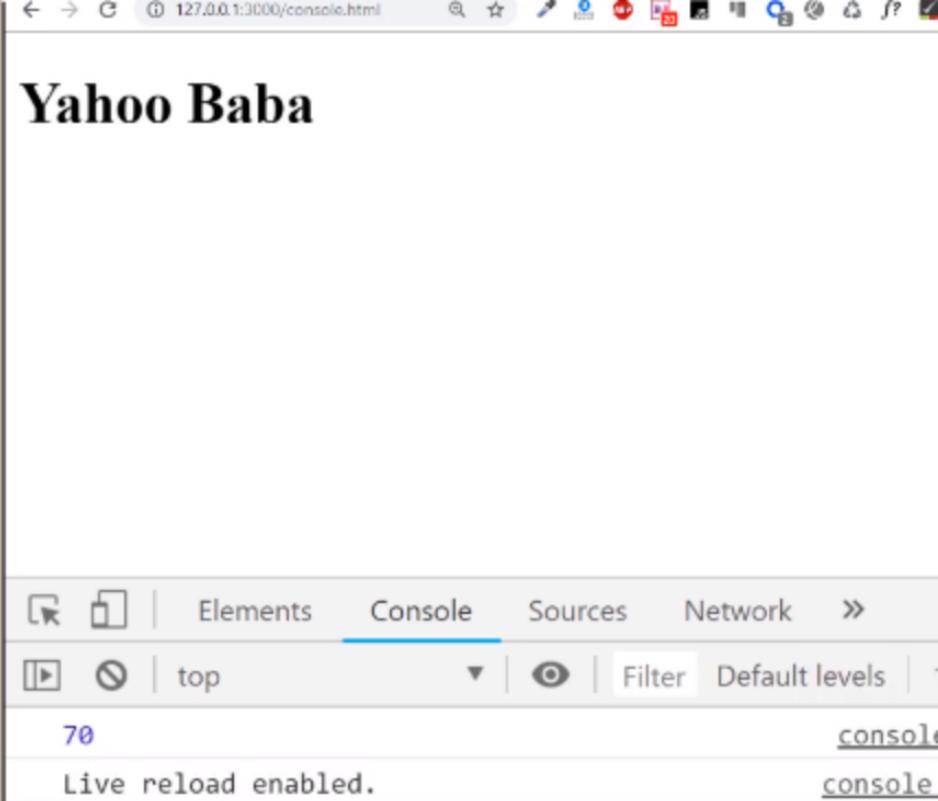
```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var x = 50;
7
8     console.log(x);
9   </script>
10 </head>
11 <body>
12   <h1>Yahoo Baba</h1>
13 </body>
14 </html>
15
```

50

Yahoo Baba



```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var x = 50;
7
8     console.log(x + 20);
9   </script>
10 </head>
11 <body>
12   <h1>Yahoo Baba</h1>
13 </body>
14 </html>
15
```



```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var x = 50;
7
8     console.log([1,2,3]);
9   </script>
10 </head>
11 <body>
12   <h1>Yahoo Baba</h1>
13 </body>
14 </html>
```

Yahoo Baba

The screenshot shows a browser's developer tools open to the 'Console' tab. The page title is 'Yahoo Baba'. In the console, the command `console.log([1, 2, 3])` is run, resulting in the output: `(3) [1, 2, 3]` with a tooltip icon. Below this, the array elements are listed: `0▶1`, `1: 2`, `2: 3`, and `length: 3`. A 'proto' entry is also shown: `▶ __proto__: Array(0)`. At the bottom of the console, the message 'Live reload enabled.' is displayed.

Elements Console Sources Network » | :: X

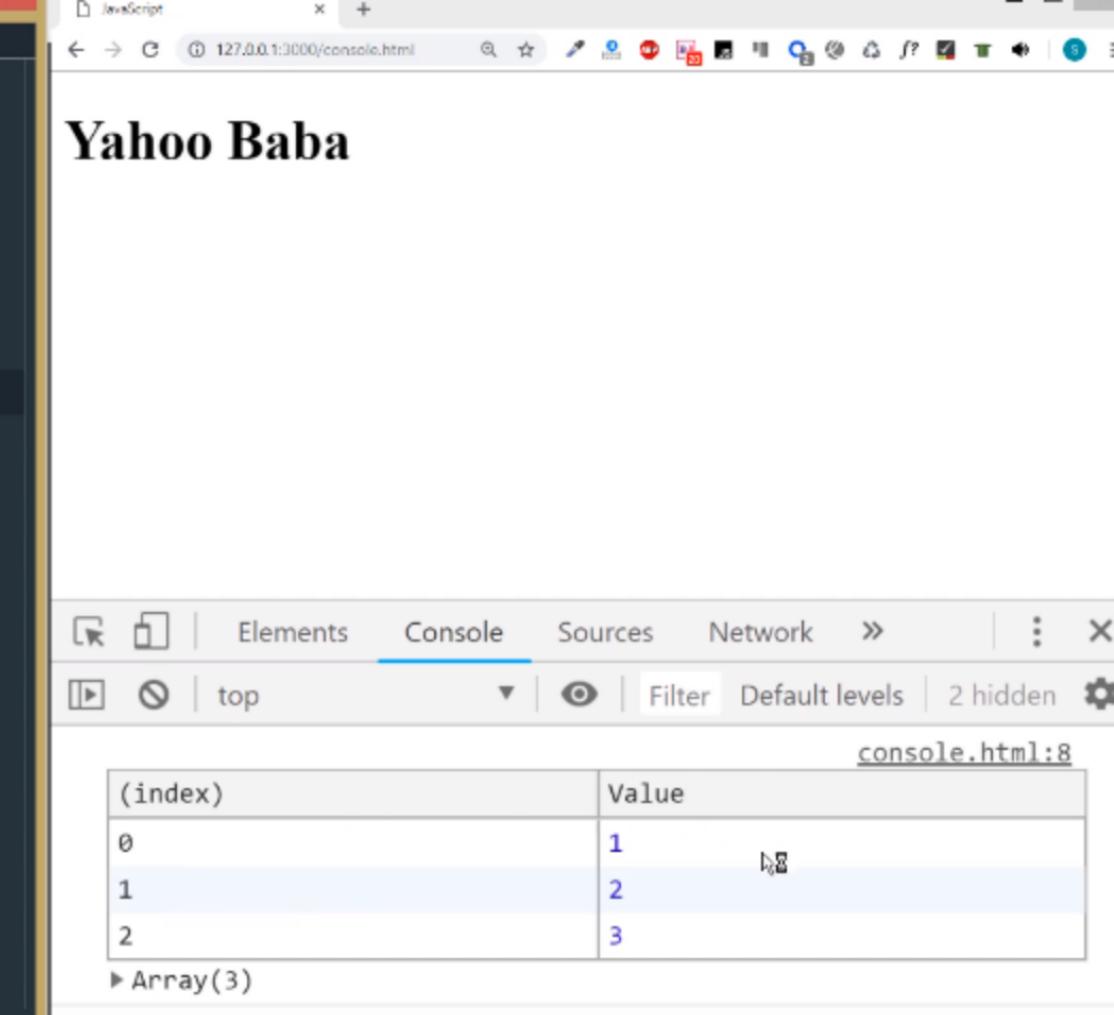
top ▶ ⚡ Filter Default levels 2 hidden 🛡

▼ (3) [1, 2, 3] ⓘ console.html:8

0▶1
1: 2
2: 3
length: 3
▶ __proto__: Array(0)

Live reload enabled. console.html:39

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var x = 50;
7
8     console.table([1,2,3]);
9   </script>
10 </head>
11 <body>
12   <h1>Yahoo Baba</h1>
13 </body>
14 </html>
```



```
1 console.html — E:\YahooBaba\Learn-JavaScript — Atom
2
3
4
5
6
7
8
9
10
11
12
13
14
15
```

```
<!DOCTYPE html>
<html>
<head>
  <title>JavaScript</title>
  <script>
    var x = 50;

    console.error("Something went wrong.");
  </script>
</head>
<body>
  <h1>Yahoo Baba</h1>
</body>
</html>
```

JavaScript

127.0.0.1:3000/console.html

Yahoo Baba

Elements Console Sources Network » × 1 :

top Filter Default levels 1 hidden

Something went wrong. [console.html:8](#)

Live reload enabled. [console.html:39](#)

console.html

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var x = 50;
7
8     console.warn("This is just warning.");
9   </script>
10 </head>
11 <body>
12   <h1>Yahoo Baba</h1>
13 </body>
14 </html>
15
```

x

127.0.0.1:3000/console.html

Yahoo Baba

Elements Console Sources Network » 1 | : X

top Filter Default levels ▾ gear

⚠ This is just warning. [console.html:8](#)

Live reload enabled. [console.html:39](#)

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var x = 50;
7
8     console.warn("This is just warning.");
9     console.warn("This is just warning.");
10    console.warn("This is just warning.");
11    console.warn("This is just warning.");
12    console.warn("This is just warning.");
13
14    console.clear();
15  </script>
16 </head>
17 <body>
18   <h1>Yahoo Baba</h1>
19 </body>
20 </html>
21
```

Yahoo Baba

Elements Console Sources Network » :: X

Console top ▾ Filter Default levels 2 hidden ⚙

Console was cleared [console.html:14](#)

Live reload enabled. [console.html:45](#)

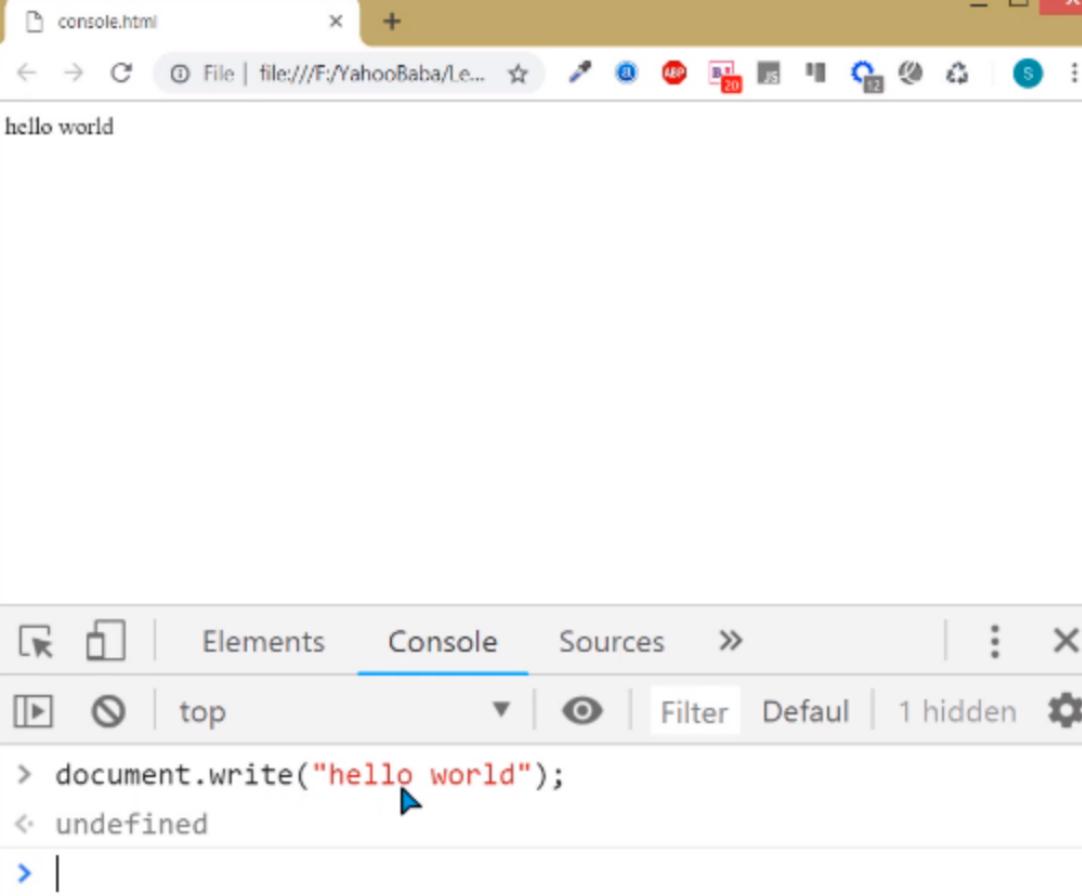
```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var x = 50;
7
8     console.time("Test");
9     console.warn("This is just warning.");
10    console.warn("This is just warning.");
11    console.warn("This is just warning.");
12    console.warn("This is just warning.");
13    console.warn("This is just warning.");
14    console.timeEnd("Test");
15    //console.clear();
16  </script>
17 </head>
18 <body>
19   <h1>Yahoo Baba</h1>
20 </body>
21 </html>
```

Yahoo Baba

Elements Console Sources Network ▶ 5 | ⋮ X

▶ top Filter Default levels 2 hidden

⚠ ▶ This is just warning. console.html:9
⚠ ▶ This is just warning. console.html:10
⚠ ▶ This is just warning. console.html:11
⚠ ▶ This is just warning. console.html:12
⚠ ▶ This is just warning. console.html:13
Test: 50.93994140625ms ▶ console.html:14
Live reload enabled. console.html:46



JavaScript

If Statement



```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var a = 100;
7     var b = "100";
8
9     if(a === b){
10       document.write("Yahoo Baba");
11     }
12
13   </script>
14 </head>
15 <body>
16
17 </body>
18 </html>
```

The screenshot shows a browser window with developer tools open. The address bar indicates the URL is 127.0.0.1:3000/compari... . The developer tools interface has tabs for Elements, Console, Sources, Network, Performance, and Memory. The Console tab is active, showing the message "Live reload enabled." and a single line of output ">".

Different Type of Logical Operators :



Operator	Name
&&	Logical AND
	Logical OR
!	Logical NOT

If Statement with Logical AND :



```
If(Condition 1 && Condition 2){  
}  
▶
```



If Statement with Logical OR :



```
If(Condition 1 || Condition 2){
```



```
}
```

Run only when either one condition must be TRUE

If Statement with Logical NOT :



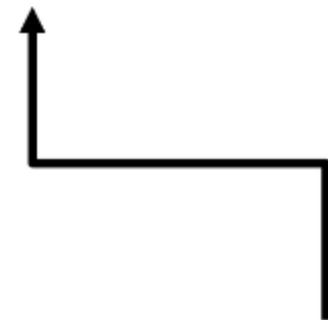
If !(Condition){

}

True



False



False



True

```
1 <!DOCTYPE html>
2 <html>
3 <head>
4   <title>JavaScript</title>
5   <script>
6     var age = 20;
7
8     if(age >= 18 && age <= 21){
9       console.log("Yes you are eligible")
10    }
11  </script>
12 </head>
13 <body>
14
15 </body>
```

A screenshot of the browser's developer tools Console tab. The tab bar includes Elements, Console, Sources, Network, Performance, Memory, and more. The console output shows two lines of text: 'Yes you are eligible' and 'Live reload enabled.' Both lines are timestamped with 'logical-operators.html:9' and 'logical-operators.html:41' respectively.

```
<!DOCTYPE html>
<html>
<head>
    <title>JavaScript</title>
    <script>
        var a = 30;
        var b = 15;
        console.log(!|a >= 12);
        //if (!a >= 12){
        //    console.log("Yes you are eligible")
        //}
    </script>
</head>
<body>
</body>
```

