

Javascript Intro and HTML Buttons





Javascript Intro

- Javascript was invented in 1995 by Brendan Eich
- It is currently the 2nd most popular coding language used today
- Javascript is used to manipulate features on a web page
 - Show/Hide content based on permissions
 - Capture user input
- Run animations
- Basically it does all the work!



Javascript syntax

Syntax is a set of rules a code language

In html we have a opening and closing tag.

Example `<p> </p>`

In Javascript lines are ended with ;

Example: `let x = 5;`

`let x = 5;`

`let mark = "Awesome";`

`String mark = "Awesome";`



Adding Javascript to a page

To add javascript to a html web page use the `<script>` tag

Typically javascript is placed at the top of the html document but it can be placed anywhere as long as it is placed before it is referenced

Javascript can also be written within an element (more on this to come later)



Javascript Example

```
<script>
```

```
let x = 1;
```


```
let y = 2;
```

```
let z = x + y;
```

```
Z = 1+2
```

```
z= 3
```

```
</script>
```



So that's all great.....but how do I SEE my Javascript in action?





Javascript Alert



Alert is a pop up window that appears at the top of the browser

It is written as follows

```
alert(WHATEVER YOU WANT HERE);
```

You can put a variable in an alert or a message by using double quotes

```
alert(z);
```

```
alert("This text will appear in the pop up");
```



Lets try it!! Javascript Syntax with alert()

```
<script>
```

```
var x = 1;
```

```
var y = 2;
```

```
var z = x + y;
```

```
alert(z);
```

```
</script>
```




Console.log

Similar to alert we can use console.log to see what our javascript is doing HOWEVER it will only show your javascript in developer mode (F12)

```
<script>
```

```
    var x = 1;
```

```
    var y = 2;
```

```
    var z = x + y;
```

```
    console.log(z);
```

```
</script>
```



Don't forget to comment!!

Comments can be inserted into javascript using //

```
//This is a comment
```

For larger blocks of comments you can use /* and */

```
/*
```

None of

this code

Will be executed

```
*/
```



Javascript Functions

Functions are a way to control when code is executed

Functions require a unique name and are case sensitive

It is written as follows:

```
function FunctionName() {  
    // code you want to run  
}
```



HTML Buttons

HTML buttons are used for user interaction on a web page

They are created by using the `<button>` tag

They are written as follows

```
<button type="button">This is a button</button>
```

A screenshot of a rendered HTML button. It is a rectangular button with a light gray background, a thin gray border, and rounded corners. The text "This is a button" is centered on the button in a black, sans-serif font.



Referencing a function in an HTML button

In the button element you can define the onclick attribute

OnClick will reference a function in javascript and execute that code

It is written as follows:

```
<button onclick="functionName()">This button does something!</button>
```



Lets bring it all together

```
<script>
```

```
    function functionName() {  
        var x = 1;  
        var y = 2;  
        var z = x + y;  
        alert(z);  
    }
```

```
</script>
```

```
<button onclick="functionName()">This button does something</button>
```



Now for a text alert

Create a button that generates an alert that contains the text “Hello World”

```
<script>
```

```
function functionName() {  
    var x = 1;  
    var y = 2;  
    var z = x + y;  
    alert("Hello");  
}
```

```
</script>
```

```
<button onclick="functionName()">This button does something!</button>
```