WhiteHat Jr
Live Online Coding for Kids

# WEB APP BASICS

**What we did:**
We explored data input and output using javascript and made a basic web app.

**How we did it:**
**In HTML**

```
☼ HTML
1 ▾ <html>
2 ▾   <head>
3 ▾     <title>Your Name</title>
4     </head>
5
6 ▾   <body>
7 ▾     <div> First Number
8         <input type="number" class="ibox" id="firstno">
9       </div>
10
11 ▾     <div> Second Number
12         <input type="number" class="ibox" id="secondno">
13       </div>
14
15 ▾     <button onclick="add()">ADDITION</button>
16     </body>
17  </html>
```
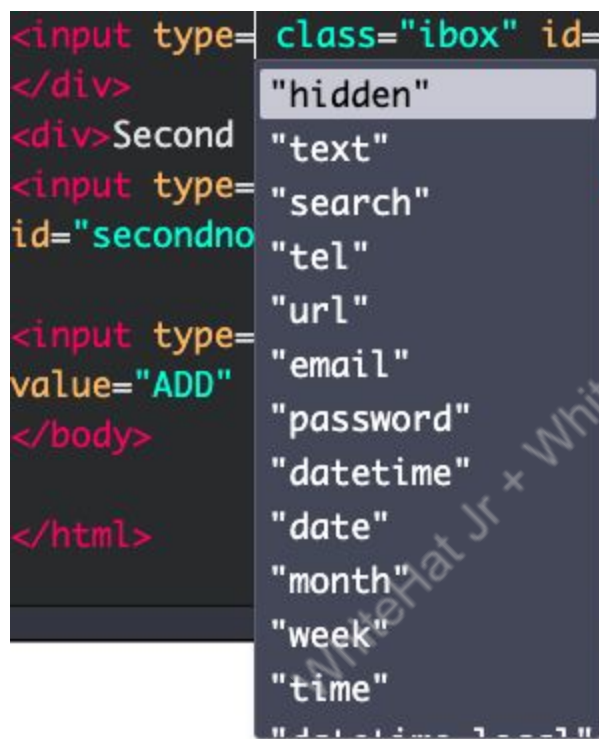
**HTML: Hypertext Markup Language**
This is used to code the **CONTENT** of the website, such as texts, images, button, textbox, etc.

Next we want, two input boxes and a button to calculate and alert the result.
Alert is like a message box.

We are using two input boxes to take the value from the user. When you type <input type= > you will get a whole list of available types of input elements.

```
<input type= class="ibox" id=
</div>                "hidden"
<div>Second          "text"
<input type=          "search"
id="secondno          "tel"
                      "url"
<input type=          "email"
value="ADD"           "password"
</body>               "datetime"
                      "date"
</html>               "month"
                      "week"
                      "time"
```

But, we just need input type as number for our calculator. Also, you will see both the input number elements are given the same class name ibox. you can give any id or classname to elements. this is because when I style the input box in CSS i can fo that will single class instead of assigning style to each input box.

Then we have a button which has an onclick, it will call the function add().

**In CSS**

```css
CSS                                              ⌄
1▾ body {
2  text-align: center;
3  }
4▾ .ibox {
5  width: 200px;
6  background-color: yellowgreen;
7  margin-left: 20px;
8  }
9
```

**CSS: Cascading Style Sheets**
This is used to code the **STYLE of the CONTENT** of the Website, such as font, color, alignment, margins, etc.

Here the inpuboxes belong to the same class named ibox, so when you want to style components using the class you have to use dot. before the name.
when you want to style a component using its id we use # hash and when you want to style using HTML tag we just use the tag name.

Here the input boxes belong to the class ibox so both the boxes will have a width of 200 pixels and left margin of 20px so differentiate labels and the background color is set to yellowgreen.

Remember when you have more than one component to style you can do that by giving them the same classname.

**In JS**

```js
JS
1▾ function add() {
2  var result =
3  Number(document.getElementById("firstno").value) +
4  Number(document.getElementById("secondno").value);
5  window.alert(result);
6  }
```

**JavaScript**
This is used to code the behaviour in terms of events/actions of the CONTENT, such as onclick, color change, navigation, mouseover, etc.

Javascript assumes everything it gets from HTML document as text so when it gets the value of from the inputbox firstno it takes that numbers as text or string, that's why we use Number() to convert the string into a number.

Let me explain.

So when a number is a string you can't add it you can just join it for eg.

String: 12 + 12=1212
String: an+na=anna
This is called concatenation: That is joining two strings using +.

Number(String:12+12)=24

**Computers Join Strings and Adds Numbers:**

So we use a variable result to store the addition of 'firstno' and 'secondno' and alert this result variable which will result in showing the addition of two numbers on the alert box.

To alert anything the code is -
window.alert(thing which you want to alert)

When the user clicks the button name ADD, The  result of addition is been alerted .

**What's next:** In the next class, we'll work on our web page's development.
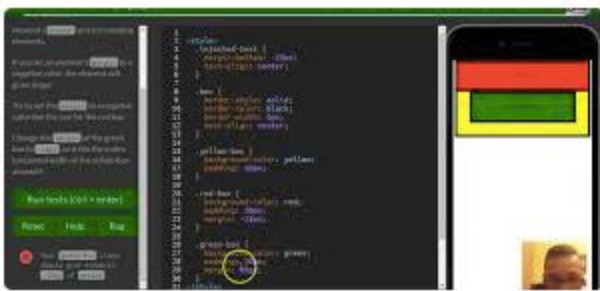
## EXTEND YOUR KNOWLEDGE

Here are some Best References we've compiled together to enhance your knowledge and understanding of the concepts we learnt today in the class. This will help you become pro at coding and creating industry-grade tech products!

**Short Videos:** Watch these Short Videos to understand the application of the concepts learned in class in real-world applications.

https://www.youtube.com/watch?v=s4mVpceYS7Y



https://www.youtube.com/watch?v=Dt3K9bJXzzk



https://www.youtube.com/watch?v=zq9CF9G3Isw

**Coding Playground:** Try out these code examples to get more practice making Websites and Playstore ready apps.



**HTML Input Types**
w3schools.com

https://www.w3schools.com/html/html_form_input_types.asp

**Learn Basic CSS:**

freecodecamp.org

https://www.freecodecamp.org/learn/responsive-web-design/basic-css/adjust-the-padding-of-an-element

**JavaScript**

https://www.freecodecamp.org/learn/javascript-algorithms-and-data-structures/basic-javascript/add-two-numbers-with-javascript