Create a calculator

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What have we learned during this project?

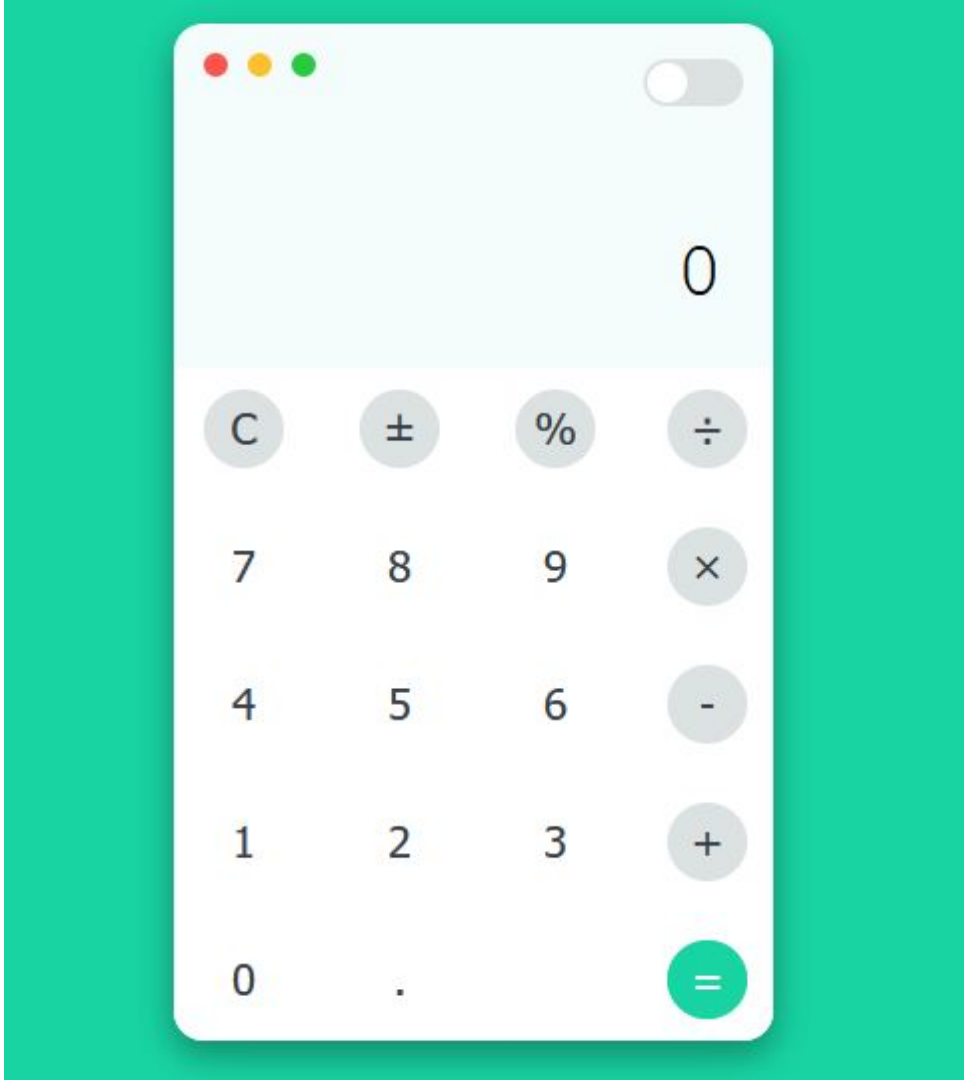
In this project, we have practiced DOM and javascript and their integration with HTML

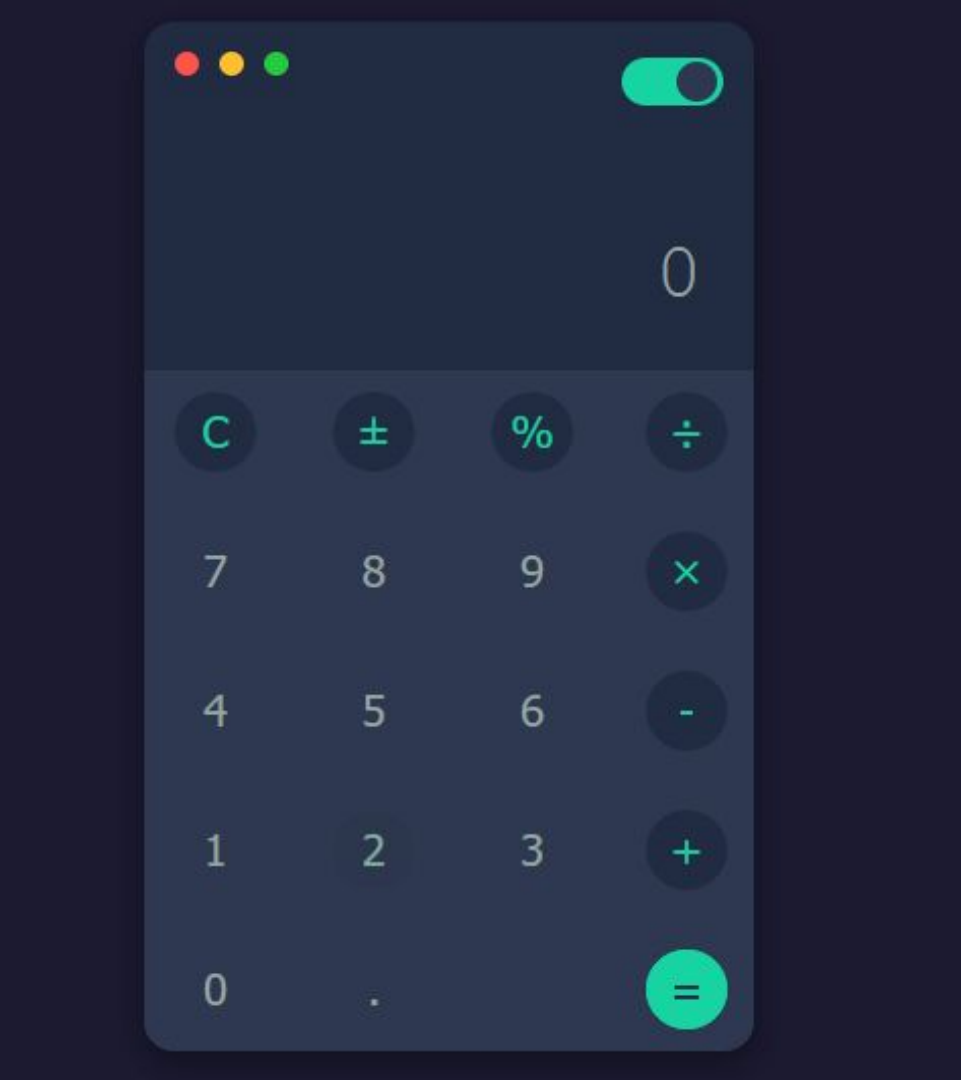
Difficulties encountered during the project

Do the operations given the data by pressing the numbers and operators, since they were not as numbers or signs and they had to be translated

THE CALCULATOR

Day mode





NIGHT MODE

Buttons

Buttons work with an “onclick” event inside the button tag on the HTML. These onclick events call its own function inside the JavaScript file.

We thought about the use of an ID on the Div containers but these were never used.

```
<div id="keyboard-container">
        <div id="keyboard-erase"><button class="symbolButton" onclick="erase()">C</button></div>
        <div id="keyboard-plusminum"><button class="symbolButton" onclick="plusminum()">±</button></div>
        <div id="keyboard-percent"><button class="symbolButton" onclick="percent()">%</button></div>
        <div id="keyboard-division"><button class="symbolButton" onclick="division()">÷</button></div>
        <div id="keyboard-seven"><button class="numberButton" onclick="seven()">7</button></div>
        <div id="keyboard-eight"><button class="numberButton" onclick="eight()">8</button></div>
        <div id="keyboard-nine"><button class="numberButton" onclick="nine()">9</button></div>
        <div id="keyboard-multiply"><button class="symbolButton" onclick="multiply()">×</button></div>
        <div id="keyboard-four"><button class="numberButton" onclick="four()">4</button></div>
        <div id="keyboard-five"><button class="numberButton" onclick="five()">5</button></div>
        <div id="keyboard-six"><button class="numberButton" onclick="six()">6</button></div>
        <div id="keyboard-rest"><button class="symbolButton" onclick="rest()">-</button></div>
        <div id="keyboard-one"><button class="numberButton" onclick="one()">1</button></div>
        <div id="keyboard-two"><button class="numberButton" onclick="two()">2</button></div>
        <div id="keyboard-three"><button class="numberButton" onclick="three()">3</button></div>
        <div id="keyboard-plus"><button class="symbolButton" onclick="plus()">+</button></div>
        <div id="keyboard-zero"><button class="numberButton" onclick="zero()">0</button></div>
        <div id="keyboard-dot"><button class="numberButton" onclick="dot()">.</button></div>
        <div id="keyboard-space"></div>
        <div id="keyboard-equal"><button class="equal" onclick="equal()">=</button></div>
</div>
```

Operators

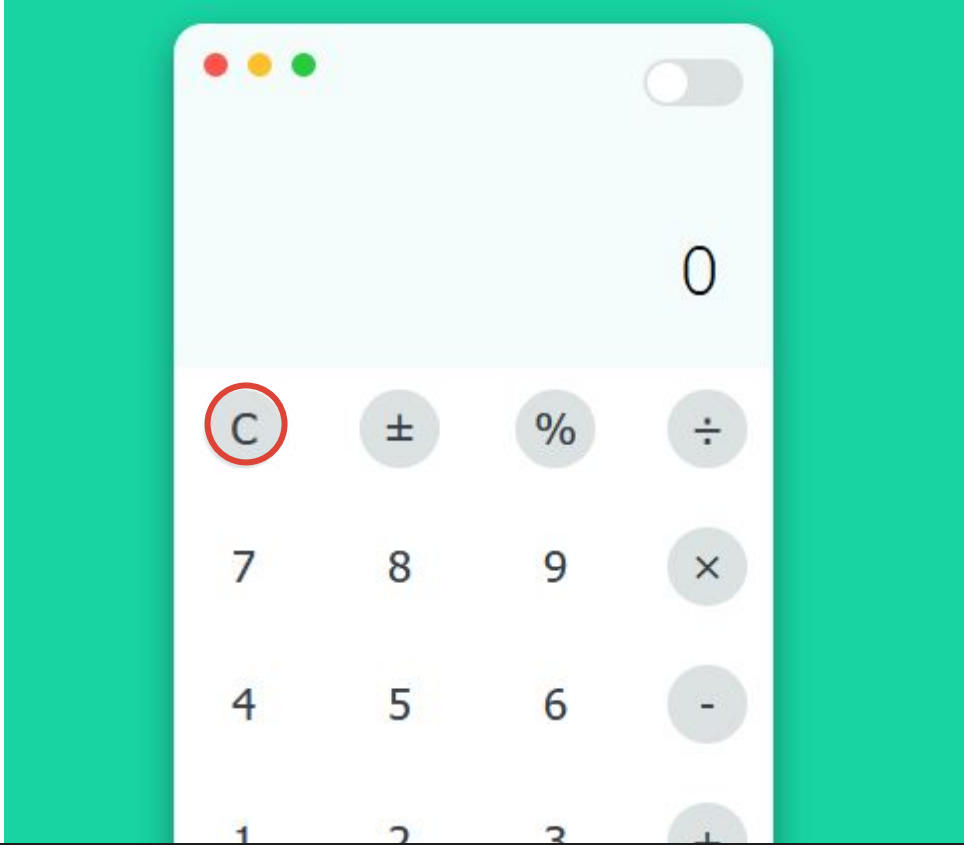
We have extracted the data from the id "calculate", extracted the text of "more", separated into a string and verified that it could not be added after each symbol another that could not follow it.

```
function plus () {
    let plus = document.getElementById("calculate");
    let plus1 = plus.textContent;
    let plus2 = plus1.split("");
    let l = plus2.length;

    if(plus2[l-1] != "%" && plus2[l-1] != "/" && plus2[l-1] != "*" && plus2[l-1] != "-" && plus2[l-1] != "+" && plus2[l-1] != ".") {
        plus.textContent += "+";
    }
    console.log(plus.textContent);
}
```

CLEAR

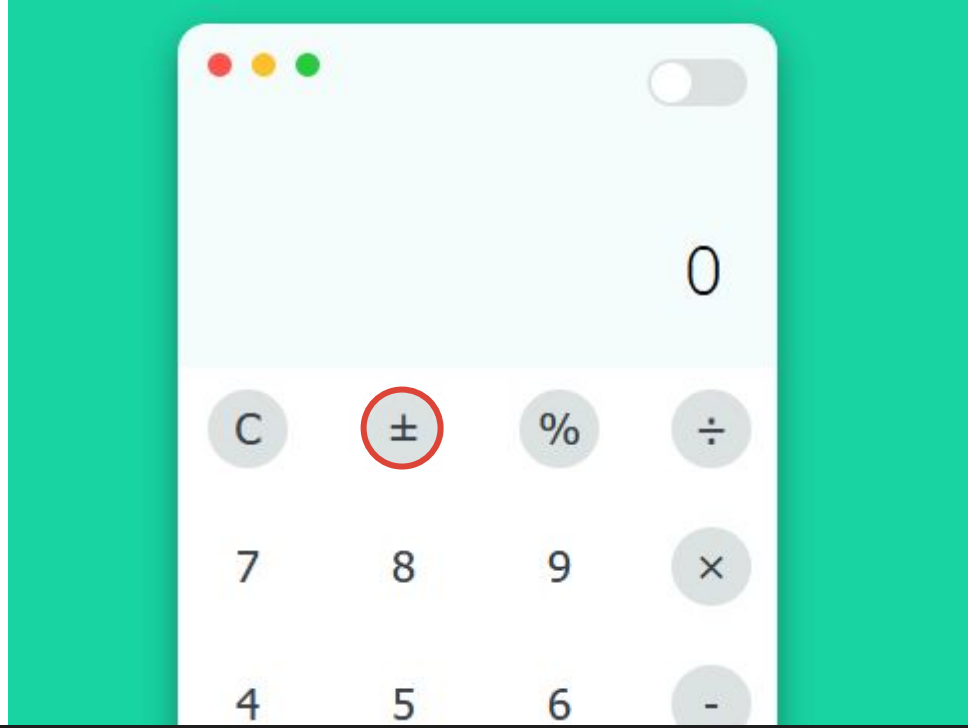
The clear button uses the innerHTML method to erase the elements of the calculate container and reset to zero the equal container.




```
120  function erase () {
121      let erase = document.getElementById("calculate");
122      erase.innerHTML = "";
123      let eraseResult = document.getElementById("result");
124      eraseResult.innerHTML = 0;
125      console.log("Calculator cleared!");
126  }
```

More/Less

The More/Less function is based on an if else loop.




```
127  function plusminum () {
128      let plusminum  = document.getElementById("result");
129      let result = plusminum.textContent;
130      plusminum.textContent = "";
131      if (result > 0) {
132          plusminum.textContent = `-${result}`;
133      } else {
134          plusminum.textContent = `${-(result)}`;
135      }
136  }
```

The Equal

We extract the ID "calculate", we extract its content and do the operation with "eval".

We make sure that if it is going to give an unwanted value, it puts a message on the ERROR calculator screen.

We print the result in "result" with a maximum of two decimal places and we layer the length of the answers so that it does not go off the screen.

```
function equal () {

    let equal = document.getElementById("calculate");
    let equalCont = equal.textContent;
    let resultNumber = eval(equalCont);

    if(resultNumber == Infinity || resultNumber == NaN || resultNumber == undefined){
        let result = document.getElementById("result");
        let innerResult = result.innerHTML = "ERROR";
    }else{
        let equalSplit = equalCont.split("");
        let lEqual = equalSplit.length;
        if (lEqual > 10) {
            let result = document.getElementById("result");
            let innerResult = result.innerHTML = "Too much.";
        } else {
            let result = document.getElementById("result");
            let innerResult = result.innerHTML = resultNumber.toFixed(2);
        }
    }
    console.log(result.textContent);
}
```