

The challenge is to create an animated clock with a theme change. Here is a breakdown on how I made the animated clock

```
1
2  function currentTime() {
3    let date= new Date();
4    let hour= date.getHours();
5    let minute= date.getMinutes();
6    let second= date.getSeconds();
7    hour = updateTime(hour);
8    minute = updateTime(minute);
9    second = updateTime(second);
```

First, in javascript, I made a new function that has let functions inside. With updateTime, it will update the time according to the device's clock.

```
10   let months = ['January', 'February', 'March', 'April', 'May', 'June', 'July', 'August', 'September', 'October', 'November', 'December'];
11   let days = ['Sun', 'Mon', 'Tue', 'Wed', 'Thu', 'Fri', 'Sat'];
12   let currentDate= date.getDate();
13   let currentDay= days[date.getDay()];
14   let currentMonth= months[date.getMonth()];
15   let currentYear= date.getFullYear();
16   let theDate = currentDay+" "+currentDate+" "+currentMonth+" "+currentYear;
17   document.getElementById("date").innerHTML = theDate;
18
19   document.getElementById ("clock").innerText=hour+":"+minute+":"+second;
20   let time= setTimeout(function(){
21     currentTime()
22   }, 1000
23   );
24 }
25
```

For the clock to show the date and month, I made let months filled with the name of the months and days. To make it show up, I use document.getElementById("date").innerHTML.

For the clock, the function is set to 1000 milliseconds (1 second).

```
26   // Adds 0 to single digit
27   function updateTime(c) {
28
29     if(c < 10) {
30       return "0" + c;
31     }
32     else{
33       return c;
34     }
35   }
36   currentTime();
37
```

Line 36, Column 1

I realized when I executed the previous code, the clock shows single-digit hours with one number (for example: 7:00:00 instead of 07:00:00). To solve this, I use if statement for updateTime. If the time is less than 10, it will add 0 in front of the number.