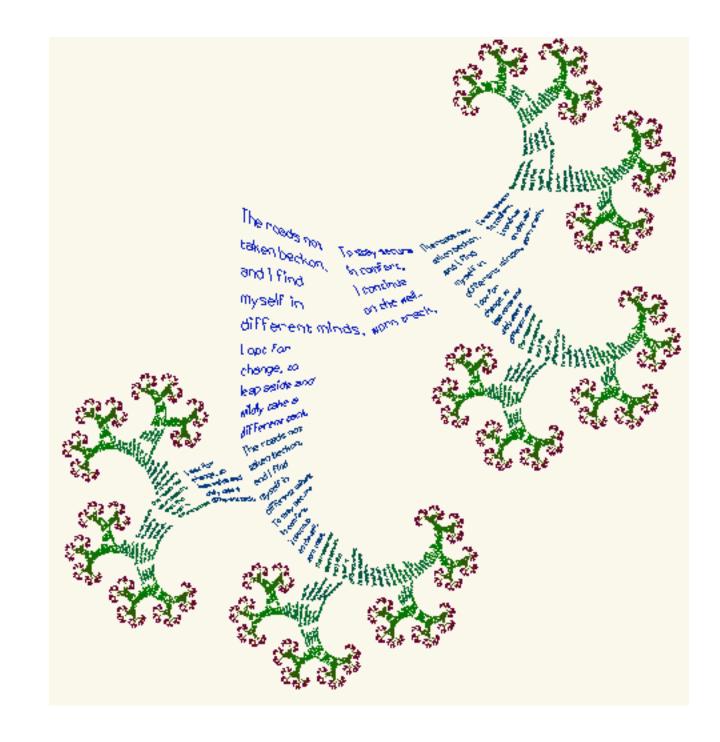
CD Studio: JavaScript Week 8

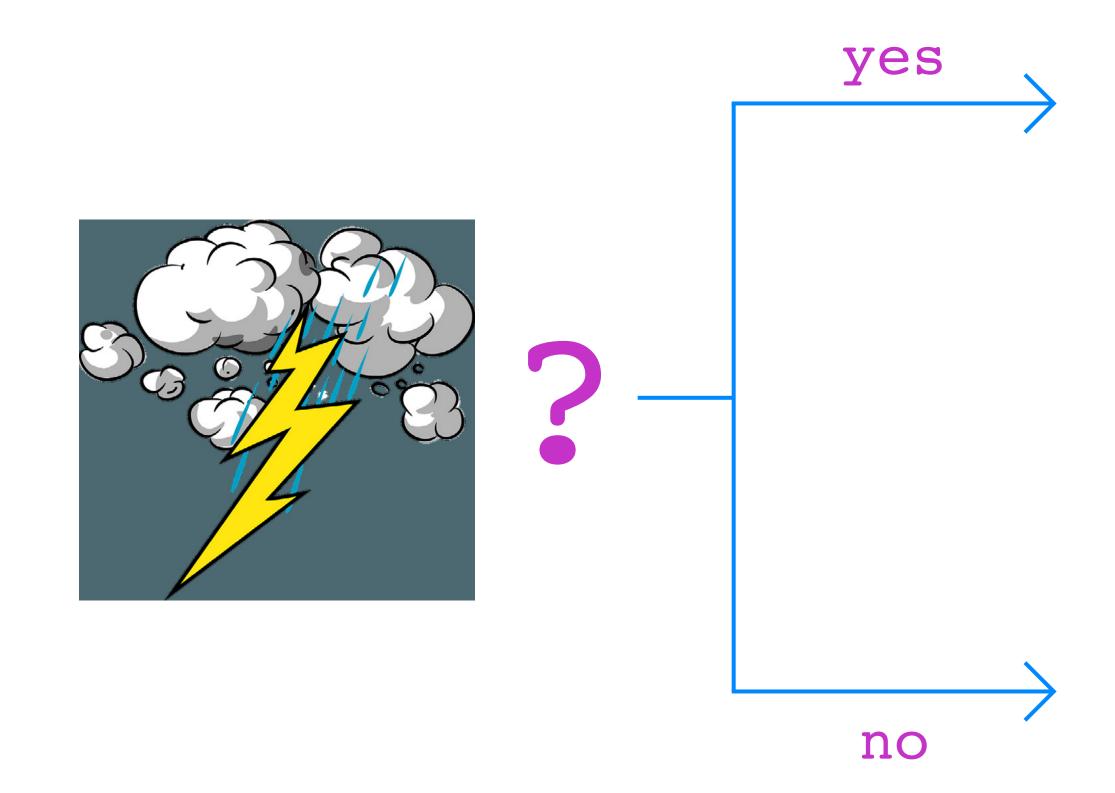
## Conditional Paths Passing Parameters Working With The Date Object

Forking paths



Scripts can change their course based on reactions to external factors. Meaning a single set of instructions can include multiple routes and outcomes.

if...else Statements



JavaScript if/else statements works just like conditional sentences in spoken language. For example "If it rains, the picnic will be cancelled".





```
var announcement = "The picnic will begin at 2pm";
function picnicUpdate() {
    console.log(announcement);
}
```

picnicUpdate(); //returns: The picnic will begin at 2pm

```
var announcement;
var rain = true;
function picnicUpdate() {
    if (rain == true) {
        announcement = "The picnic is cancelled due to rain";
    }
    else {
        announcement = "The picnic will begin at 2pm";
    }
    console.log(announcement);
}
```

picnicUpdate(); //returns: The picnic is cancelled due to rain

Translating "If it rains, the picnic will be cancelled" into JavaScript.

```
var announcement;
```

```
function picnicUpdate(weatherCondition) {
    if (weatherCondition == "rain") {
        announcement = "The picnic is cancelled due to rain";
    else {
        announcement = "The picnic will begin at 2pm";
    console.log(announcement);
}
```

picnicUpdate("sun"); //returns: The picnic will begin at 2pm picnicUpdate("rain"); //returns: The picnic is cancelled due to rain

```
var announcement;
```

```
function picnicUpdate(weatherCondition, totalGuests) {
    if (weatherCondition == "rain") {
        announcement = "The picnic is cancelled due to rain";
    else {
        announcement = "The picnic will begin at 2pm. " +
totalGuests + " people will be in attendance";
    }
    console.log(announcement);
}
```

picnicUpdate("sun", 12); //returns: The picnic will begin at 2pm. 12 people will be in attendance picnicUpdate("rain", 6); //returns: The picnic is cancelled due to rain

else if

var announcement;

```
function picnicUpdate(weatherCondition, totalGuests) {
    if (weatherCondition == "rain" && totalGuests >= 10) {
        announcement = "The picnic is cancelled due to rain";
    else if (weatherCondition == "rain" && totalGuests < 10) {
        announcement = "The picnic is moving inside with " +
totalGuests + " guests";
    }
    else {
        announcement = "The picnic will begin at 2pm. " +
totalGuests + " people will be in attendance";
    console.log(announcement);
}
```

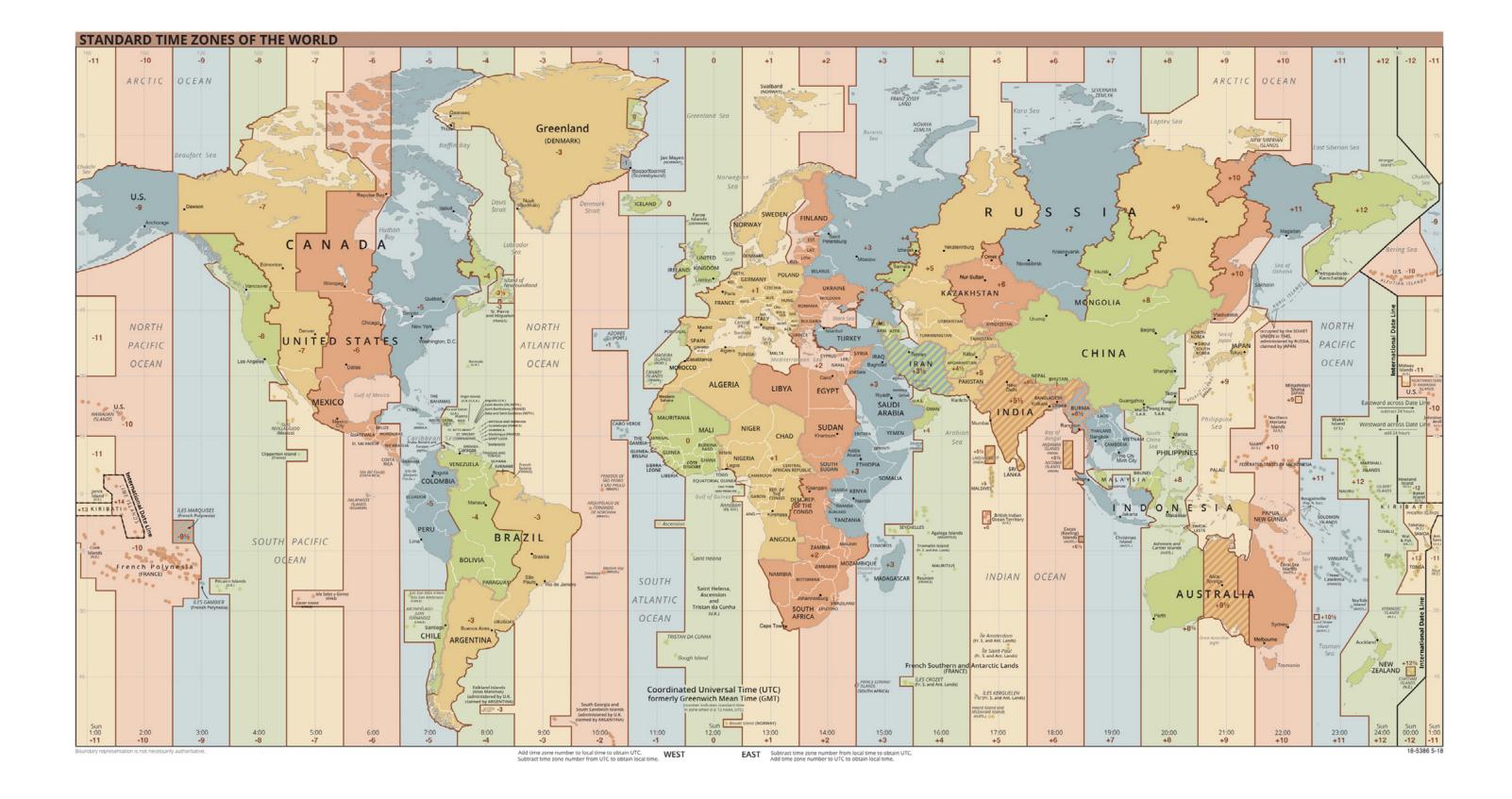
picnicUpdate("sun", 12); //returns: The picnic will begin at 2pm. 12 people will be in attendance picnicUpdate("rain", 6); //returns: The picnic is moving inside with 6 guests



a party held by DKUUG (at 03:46:40 local time).

Unix time (also known as Epoch time, Posix time, seconds since the Epoch, or UNIX Epoch time) is a system for describing a point in time. It is the number of seconds that have elapsed since the Unix epoch, excluding leap seconds. The Unix epoch is 00:00:00 UTC on 1 January 1970 (an arbitrary date).

### The JavaScript Date() Object



A JavaScript date is fundamentally specified as the number of *milliseconds* that have elapsed since midnight on January 1, 1970, UTC.

Reading values out of the Date Object

```
var date = new Date();
//Date Tue Oct 19 2021 18:58:26 GMT-0400 (Eastern Daylight Time)
```

```
var hours = date.getHours();
//18
```

```
var minutes = date.getMinutes();
//58
```

```
console.log("the time was " + hours + ":" + minutes);
```

Pulling out the values Hours and Minutes as separate variables, we can create a string that reads the time "18:58".

Working with zero base month values

```
var date = new Date();
//Date Tue Oct 19 2021 18:58:26 GMT-0400 (Eastern Daylight Time)
```

var months = ['January', 'February', 'March', 'April', 'May', 'June', 'July', 'August', 'September', 'October', 'November', 'December'];

var monthName = months[date.getMonth()];

console.log("Date value as number: " + date.getMonth()); console.log("Date value as name: " + monthName);

Converting the month "9" to the name of the month "October".

Converting to Unix Epoch Time

### var date = new Date(); //Date Tue Oct 19 2021 18:58:26 GMT-0400 (Eastern Daylight Time)

### var date.getTime();

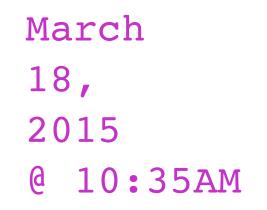
//1634684306349 milliseconds since midnight on January 1, 1970

### Math.floor(date.getTime()/1000.0);

//1634684306 seconds since midnight on January 1, 1970 (UNIX epoch)

Divide the milliseconds by 1000 to convert to seconds.

Why use Unix time?





August 31, 2021 @ 5:17PM



When the date is a single number value we are able to more easily compare different times against each other.



# true

```
var date = new Date();
var hours = date.getHours();
```

```
if (hours > 5 & hours < 12) {
  document.body.style.backgroundColor = "yellow";
  console.log("good morning");
}
else if (hours >= 12 & hours < 18) {
  document.body.style.backgroundColor = "orange";
 console.log("good afternoon");
}
else {
  document.body.style.backgroundColor = "black";
  console.log("good night");
}
```

Test for a range of times and execute alternate messages and colors depending on the conditions met.

