Day 3 - Booleans, Operators, Date

Booleans

Can either be true or false. Any comparisons return a Boolean value which is either true or false.

Example: Boolean Values

```
let isLightOn = true
let isRaining = false
let isHungry = true
let isMarried = false
let truValue = 4 > 3
let falseValue = 4 < 3
```

Truthy Values

- Any number except 0.
- Any string except empty string ("").
- Boolean true

Falsy Values

- 0
- 0n
- null
- undefined
- NaN
- Boolean false
- Empty string

Undefined

If we don't assign a variable a value or if a function does not return a value, they are undefined.

```
let firstName
console.log(firstName)  // undefined
```

Null

```
let empty = null
console.log(empty)    // null
```

Operators

Assignment Operators

= is an assignment operator in JS. It is used to assign a value to a variable. Others are +=, -=, *=, /=, %=, **=.

Arithmetic Operators

These are mathematical operators. Symbols are: +, -, *, /, %, **.

Comparison Operators

Used to compare two values. Operators are >, <, >=, <=, == (Equal in value), and === (Equal in type and value).

Logical Operators

Symbols are && (and), || (or), and ! (not)

Increment Operator

This increase the value stored in a variable. The symbol is ++ and can be placed directly before or after a variable.

```
let count = 0
console.log(count++) // 0
console.log(count)   // 1

let count2 = 0
console.log(++count2) // 1
console.log(count2)   // 1
```

Decrement Operator

Same as increment operator, but subtracting instead of adding. There is pre-decrement and post-decrement.

Ternary Operators

Allows writing conditionals with ? (i f true) and : (if false).

```
let raining = false;
raining
    ? console.log('hi')
    : console .log('bye')
// Log: bye
```

Window Methods

Window alert() method

Displays an alert box with a specified message and ok button.

```
alert("I am STARVING!")
```

Window prompt() method

Displays a prompt box with input on browser to take input values and input data is stored in a variable. Takes two arguments, second argument is optional.

```
prompt('required text', 'optional text')
```

Window confirm() method

Display dialog box with specified message, along with an OK and Cancel button. Often used to ask permission from a user to execute something. Clicking OK yields true, clicking Cancel yields false.

```
const agree = confirm ('Are you sure you would like to delete?')
console.log(agree);    // Result will be true or false based on what you click on the dialog box
```

Date Object

In JavaScript, current time and date is created using the JavaScript Date Object. The object we create using the Date object provides many methods to work with date and time. To get date and time information, the methods all begin with with word "get".

```
const now = new Date();

now.getFullYear();  // 2023
now.getMonth();  // 0 (January)
now.getDate();  // 27
now.getHours();  // 18
now.getMinutes(); // 17
now.getSeconds(); // 52
now.getMilliseconds(); // 90
now.getTime(); // 1674868672090
now.getDay(); // 5 (Friday)
```