

JAVASCRIPT FUNDAMENTALS

EXERCISE ONE: FUNCTIONS, MATH, TEMPLATE STRINGS, ARRAYS

random.js

Define a function named `generate()` that:

1. **Stores facts:** It creates an array of strings, each containing an interesting fact about JavaScript's history.

CODE:

```
const facts = [
  `JavaScript was initially called LiveScript when its
  debuted in Netscape Navigator 2.0 in September 1995.`,
  `In December 1995, LiveScript was renamed JavaScript with
  the release of Netscape Navigator 2.0.`,
  `The name JavaScript was chosen to capitalize on the
  popularity of Java, leading to confusion about their
  relationship.`,
  `Netscape used the name JavaScript as a marketing tactic
  to associate it with the then-popular Java programming
  language.`,
  `Since the mid-2000s, server-side JavaScript
  implementations like Node.js (2009) have emerged.`
];
```

2. **Selects a random fact:** It uses the `Math.random()` function to generate a random number within the range of the array's indices. This random index is then used to select a random fact from the array.

CODE:

```
const randomFact = facts[Math.floor(Math.random() *
facts.length)];
```

3. **Displays the fact:** It uses the `document.write()` method to output the selected fact to the HTML document. The fact is displayed along with a citation indicating the source of information.

CODE:

```
document.write(`${randomFact} <em>(paraphrased from
Wikipedia)</em>`);
```

When finished, open the HTML file (index.html) and add the JavaScript code within a `<script>` tag.

EXERCISE TWO: DATE, MATH, TEMPLATE STRING, TERNARY

deadline.js

1. Set the current date and date of class quiz (end of the week)

- Create a new `Date` object representing the current date and time.

```
const today = new Date();
```

- Create a new `Date` object representing a specific deadline:
 - `today.getFullYear()`: Get the current year.
 - `10`: Month index (0-based, so 10 is November).
 - `22`: Day of the month.
 - `12`: Hours (12 PM).
 - `0`: Minutes.
 - `0`: Seconds.

```
const deadline = new Date(today.getFullYear(), 10, 22, 12, 0, 0);
```

2. Calculate the difference in days:

- `deadline.getTime() - today.getTime()`: Calculate the difference in milliseconds between the deadline and the current date.
- `(1000 * 60 * 60 * 24)`: Convert milliseconds to days.
- `Math.floor()`: Round down the result to the nearest integer, giving the number of whole days.

```
const differenceDays = Math.floor((deadline.getTime() - today.getTime()) / (1000 * 60 * 60 * 24));
```

3. Display the result:

- Use a ternary operator to conditionally format the output:
 - If `differenceDays` is negative, the quiz has already passed, and the output is "The quiz was ... days ago!".
 - If `differenceDays` is positive, the quiz is in the future, and the output is "The quiz is ... days from now!".
 - Print using template strings.

```
document.write("The quiz is ", differenceDays < 0 ? ` was ${differenceDays} days ago!` : ` is ${differenceDays} days from now!`)
```

