Front end development: Maps

JavaScript – Maps vs Objects performance

The following exercise contains the following subjects:

- Maps
- Objects
- loops

Performance analysis

One important practice is performance analysis. The JavaScript engines have made astounding strides in the performance of JavaScript, but that’s no excuse for writing sloppy and inefficient code.

A good way to measure your performance is with console.time

```
const maxCount = 1000000;
console.time("My operation")// <---- Starts the timer

for(let i =0; i < maxCount; i++){
//Perform the operation to be measured multiple times
}
console.timeEnd("My operation") // <---- Stops the time
```

Because a single operation of a given code happens much to quickly to measure reliably, we need to perform the code many times to get a measurable value. Usually we should perform the code tens of thousands of times, or even millions depending on the code being measured.

Though the exact times can change depending on your system and version of Node.js you can get the general idea of how fast or slow your code is.

Instructions

Lets investigate who is performant, Maps or Objects!

Setup:

1. Who can add key and value pairs faster in a for loop?

- Create an empty Object and assign it to a variable.
- Create a start timer for your object to be measured.
- Create a for loop that will iterate a million times. Inside your for loop on each iteration create a new key, value pair to your object using the variable I.
- Do the same procedure for a Map object.
- Compare the times.

  You may be surprised from the results :)

2. Who can find faster a specific property from itself?

  Now that we populated 100000 properties to our object's find the following:

- Find out how long time would it take for the Object to find a specific property from itself.

- Find out how long time would it take for the Map to find a specific property from itself.

3. Who is faster in adding a single entry?

4. Who is faster in deleting a single entry?