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JavaScript Logic for your Portfolio - Part Two

Build your portfolio site and use
JavaScript to make it come alive.

ROADMAP

- Opening the project on your computer

- Opening Visual Studio Code

- Overview of project files

- JavaScript variables, JS functions, the Document Object Model (DOM) and DOM methods

- JS 'strict mode'

- Browser developer tools and console.log();

- Writing our first code!

JS VARIABLES

- In JS, data can be stored in variables
- Examples of variable declarations:

```
let randNum = 0;

const numNoChg = 7;
```

- Variables declared with 'let' can be reassigned

```
randNum = 14; (this would be allowed)
```

- Variables declared with 'const' cannot be reassigned

```
numNoChg = 14; (this would NOT be allowed)
```

JS FUNCTIONS

- Functions are reusable blocks of code
- Functions can take input(s) and return an output, or can just perform an action
- Functions allow us to avoid repeating ourselves in code, simplifying our codebase
- Example of a JS function:

```
function printName(yourName) {
        console.log(yourName);
};
```

- Invoking the above function and its output:

    Input: printName('mike');

    Output: mike

JS FUNCTIONS

- "Functions" versus "methods"
  - A function is an independent code block that can return a value or accomplish an action
  - A method is just like a function, except it is designed to act only on specific data structures (basically, only designed to act on specific elements within our program)

- JS has many built-in methods that we can use to accomplish common tasks. For example:

  ```
  Array.push();
  ```
  (adds an element to an array)

  ```
  String.toUpperCase();
  ```
  (makes all letters in a string uppercase letters)

- So, for now, we will define our own functions, and we will use built-in JS methods

DOM = DOCUMENT OBJECT MODEL

- The DOM is basically the structure of an HTML document
- The DOM gives us access to methods and properties that allow us to use JS to make changes to HTML elements
  - Examples of these:

```
element.addEventListener();
classList.toggle();
document.getElementById('burger');
```

- Using JS to make changes to an HTML doc is called "DOM manipulation"

JAVASCRIPT 'STRICT MODE'

- Makes it easier to identify mistakes in our code

- Eliminates some potential security vulnerabilities in our JS

- Protects syntax that may be used in future updates to JS

DEVELOPER TOOLS

- To access your browser's built-in developer tools, open up a web page and press CTRL-SHIFT-J

- We want both the Elements tab and the Console tab to be visible

  - If you don't see the Console tab, press Esc and it should open below the Elements tab
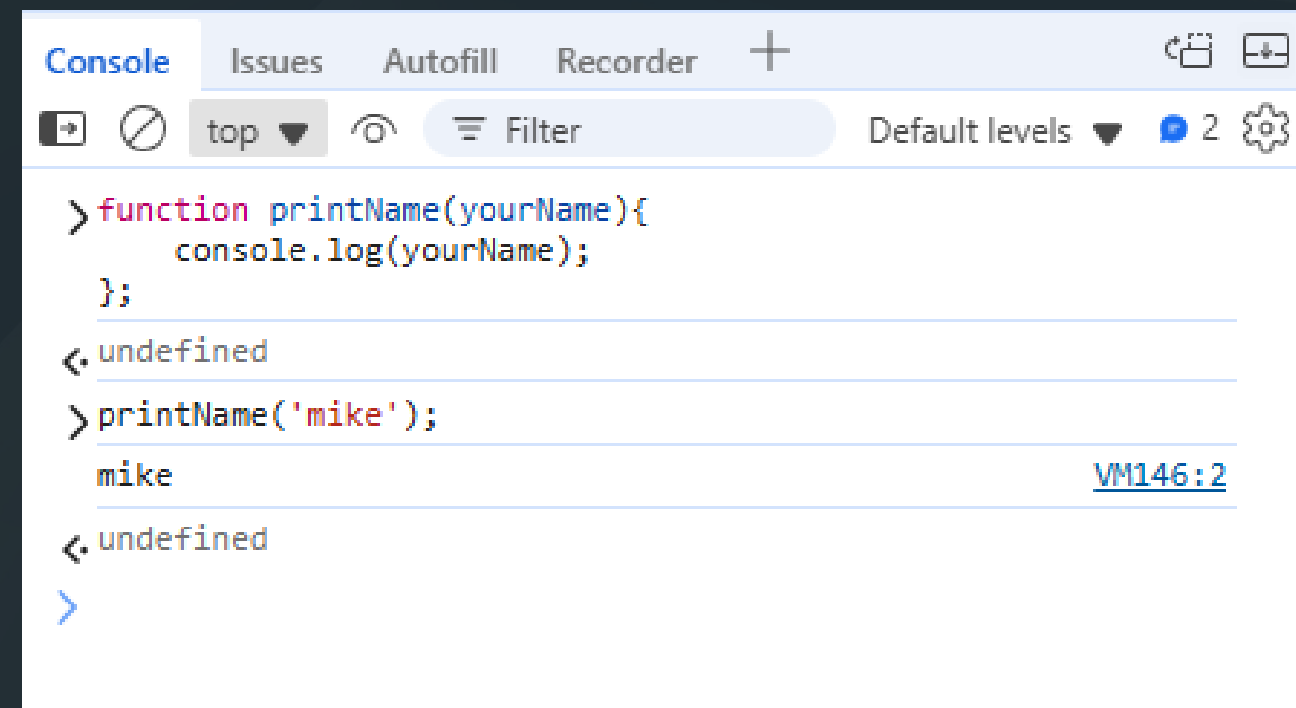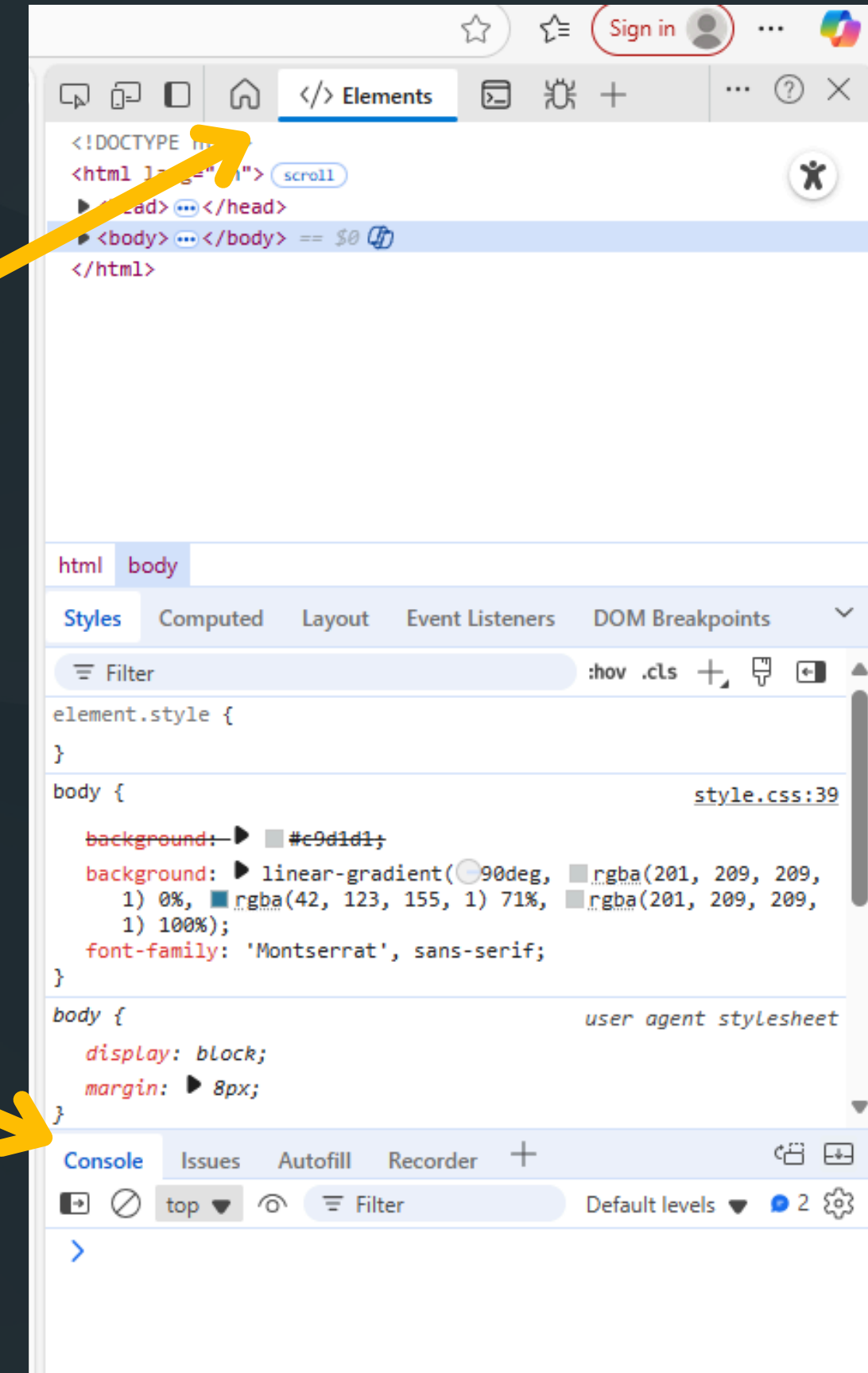
DEVELOPER TOOLS

- The Elements tab
  - Shows us the HTML structure of the web page

- The Console tab
  - Allows us to execute JS code
  - Allows us to see any data that is logged to the console
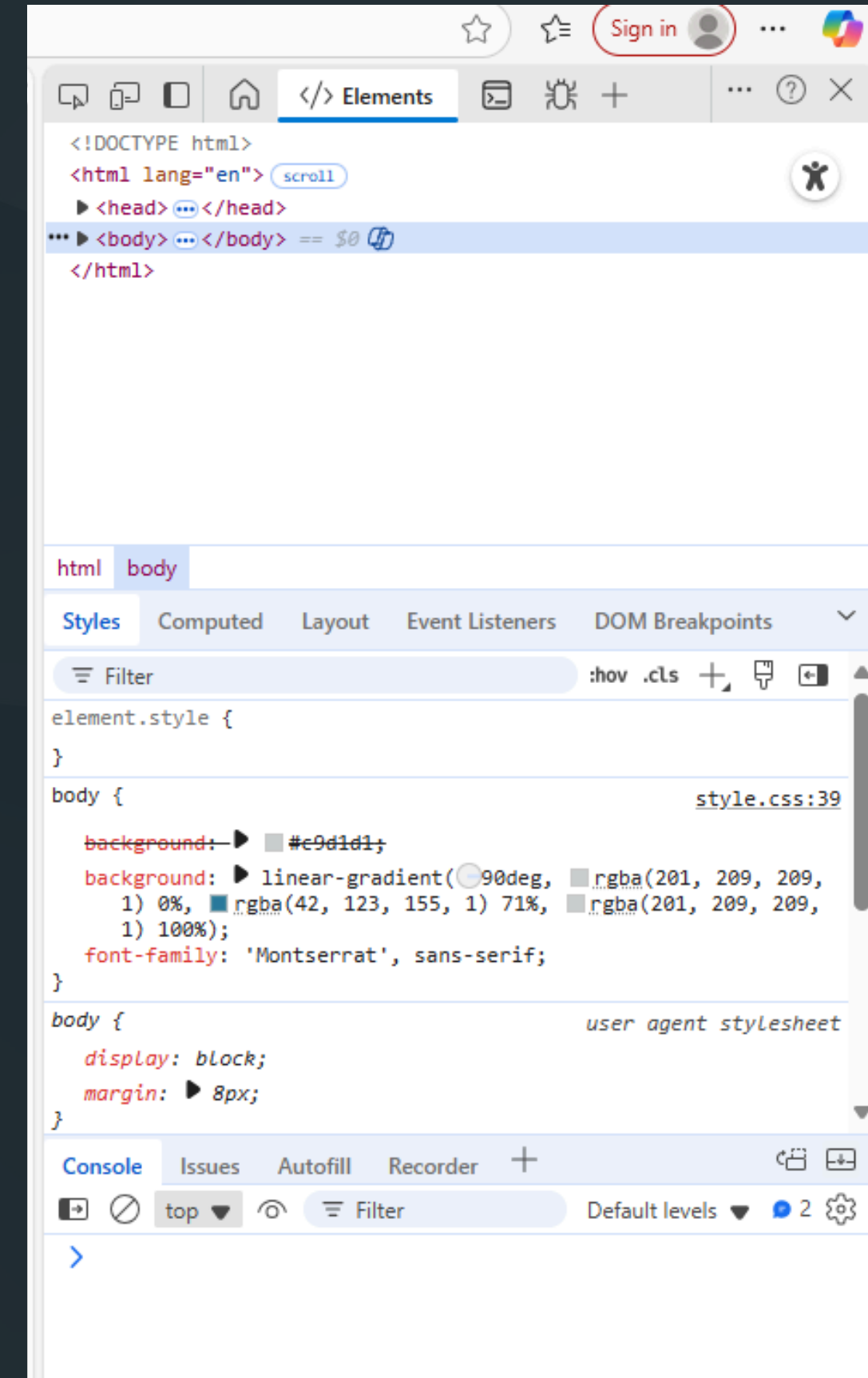
CONSOLE.LOG

- console.log(); is a method that allows us to print data to the browser console
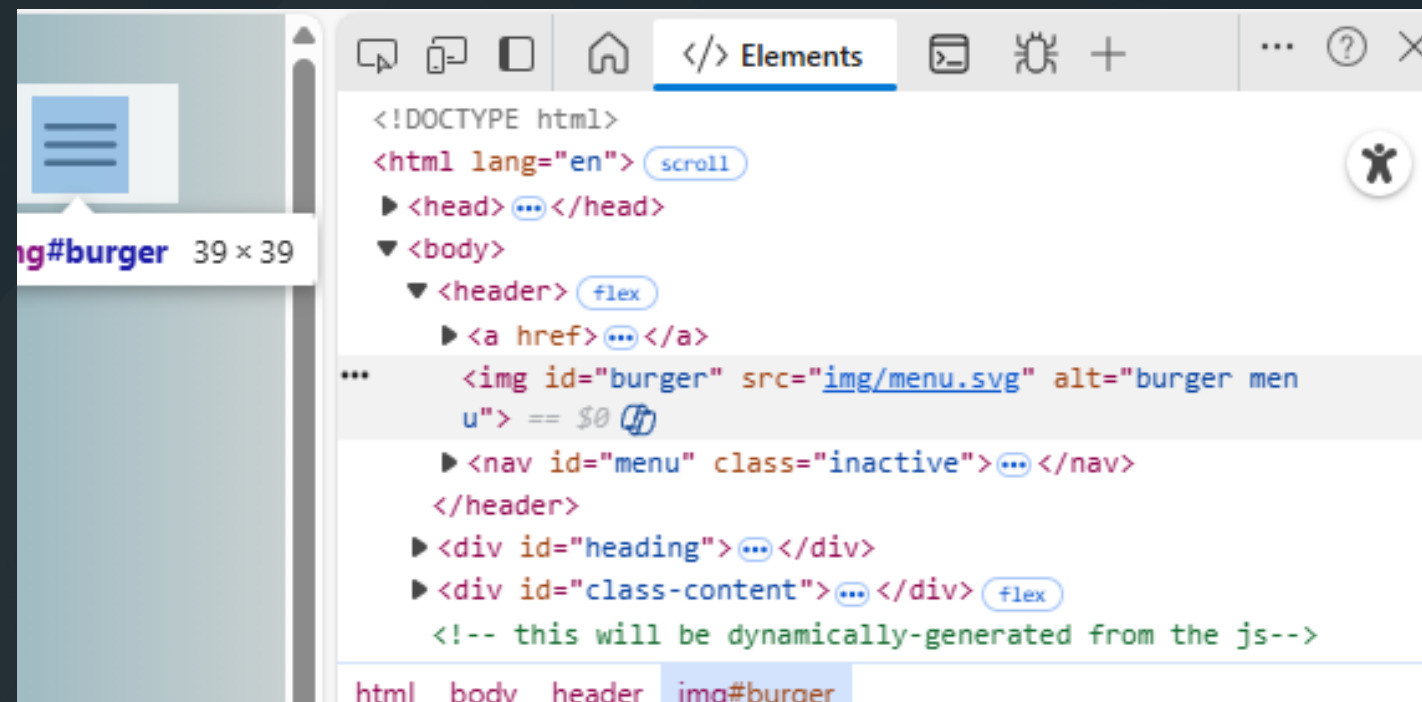 - Used for debugging and learning
- For example:

ON TO OUR FIRST CODE!

- Time to write some code!
- Before we go through it together, try to do the following:

In the script.js file in Visual Studio, use the DOM method document.getElementById(), to grab the burger image and assign it to a const variable

GREAT WEBSITES FOR REFERENCE!

- I use the following websites when I need to look something up or understand something better:

  - https://www.w3schools.com/js/

  - https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference

  - https://stackoverflow.com/questions

  Check them out!

IN THE NEXT VIDEO...

- See links on this page for:
  - This presentation in PDF form
  - The link to the starter code from my GitHub profile
  - Additional learning resources coming soon!

- Reach out to me with any questions or feedback!
  - My email address:
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