

Introduction to JavaScript

SENG 4640
Software Engineering for Web Apps
Winter 2023

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Part 2 - Javascript

Motivation

HTML and CSS only allow for static content

 HTML/CSS do not allow for generating dynamic content that can change based on user input, activity, etc.

 However, recall that the browser has an engine for generating dynamic content using JavaScript

JavaScript

 Developed at Netscape Communications in mid-1990s as a way of adding dynamic elements to HTML

 Originally known as "LiveScript"; changed to "JavaScript" soon after its release

 Now one of the most popular programming languages in the world

Developing in JavaScript

I. JavaScript can be embedded directly in the HTML inside <script> tags and/or using <link> tags to external .js files

- Browsers such as Chrome provide a JavaScript "REPL" console for writing and evaluating code
 - Can also see output generated by JavaScript in HTML

3. You can also develop JavaScript in a .js file and execute it in a runtime environment such as Node.js

```
<!DOCTYPE html>
<html>
  <head>
  </head>
  <body>
    This is my first JavaScript web page.
    >
      <script>
         document.write('The current date and time is '); var
         time = new Date();
         document.write(time);
      </script>
  </body>
</html>
```

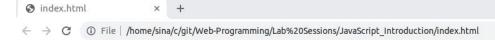
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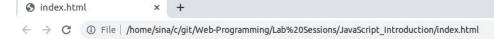
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This is my first JavaScript web page.

The current date and time is Wed Jan 11 2023 12:03:06 GMT-0800 (Pacific Standard Time)



This is my first JavaScript web page.

The current date and time is Wed Jan 11 2023 12:04:21 GMT-0800 (Pacific Standard Time)

Looking Ahead

JavaScript basics

How JavaScript code interacts with HTML elements

Frameworks for developing "client-side" JavaScript
 (i.e., in the browser)

Frameworks for developing "server-side" JavaScript
 (i.e., on a server)

Disclaimer!

- The code an examples for this part of the course have been developed using:
 - JavaScript 1.7
 - Google Chrome 109.0
 - Ubuntu 22.04.1 LTS

You may observe slight differences on your own platform