



# Introduction to JavaScript

SENG 4640

Software Engineering for Web Apps

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# Part 2 - Javascript

# Motivation

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- 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

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- 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

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1. JavaScript can be embedded directly in the HTML inside `<script>` tags and/or using `<link>` tags to external `.js` files
2. 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.
    <p>

      <script>
        document.write('The current date and time is '); var
        time = new Date();
        document.write(time);
      </script>

    </body>
  </html>
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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

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- 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!

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- The code and 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