Final Exam Content to Review:
CCSW321-Part4-JS   Lab 6
CCSW321-Part5.1-JS4Web   Lab 7
CCSW321-Part5.2-JS4Web   Lab 8
CCSW321-Part6-JS4Backend   Lab 9

Note: Review all recorded lectures and class codes.

Topics to know (NOT a comprehensive list)

- What is JavaScript and what it is used for, and the **echo system** around it.
- How to to include JavaScript and **difference** between each approach.
- How to **create variables** and determine their **scope** (i.e., the difference between **global**, **block**, and **function** scope).
- How to create conditionals, loops, functions, and objects.
- How to **parse** between different datatypes.
- How to create array, iterate over them, search them, sort them, etc.
- What is **DOM**, attributes vs methods, etc.
- How to **search** the DOM (Be familiar with all methods to access elements)
- How to **traverse** the DOM (e.g., how to access the first child of an element).
- How **to create/remove DOM elements** from a page.
- How to **update** existing DOM elements (when to use ".value" versus when to use ".innerHTML"? versus when to use ".style").
- How to write **asynchronous code** with callbacks, promises and async/await.
- What is an API, a web service, XML, JSON, and their differences.
- How to **read** user input. How to **write** output to users.
- How to attach **event** listeners (e.g., form submission, click, keyboard, etc).
- How to **validate forms** using **native JS** (e.g., whitelist check).
- What is Node, what is used for, what it can do, and how it works.
- What is a database and how is **CRUD** performed in **SQL**.
- What are the different routing types and how to setup static and HTML routing **using code**.
- How to **process** (read params) of a GET/POST request using **Express**.
- How to **validate forms** using **ExpressValidator**. How to check for length, type, format, and do a whitelist check. Also, how to attach error messages.