

This is a closed note, closed book exam. The exam will be taken in a classroom, using Canvas.

Exam 2 has 100 points total.

## Part A

Part A of the exam will be comprised of 25 multiple choice and short answer questions worth two points each. Students are advised to recall past quizzes in preparation for part A. Part A is worth 50 points total.

Here are the kinds of questions you can expect in Part A.

1. Questions about HTTP methods and HTTP status codes
2. Questions about concepts related to RESTful APIs and web development.
3. Questions where you must read code and anticipate the result.
4. Questions about SQL

## Part B

Part B of the exam will require the student to write several very focused/specific portions of code. Part B is worth 50 points total.

In Part B, students may be asked to complete conditional statements as seen in the server-side routing function or complete a server-side supporting function using arrow notation or write SQL statements. Students will also be asked to complete jQuery statements

Students will **not** be expected to write Axios statements in Part B.

Some topics to consider and review:

### CLIENT-SIDE TECHNOLOGIES

1. Bootstrap classes
  - a. Container
  - b. Row
  - c. Column
  - d. alert, and alert contextual classes
  - e. btn, and btn contextual classes
2. jQuery
  - a. "#" (hashtag) vs "." (dot)
  - b. The ajax method
  - c. show
  - d. hide
  - e. html
  - f. val
  - g. append
  - h. addClass
  - i. removeClass
  - j. ready
  - k. click
  - l. the serialize method
  - m. attr
  - n. change

**CONTINUED**

## SERVER-SIDE TECHNOLOGIES

1. SQL commands: USE, SELECT, INSERT, UPDATE, DELETE, SQL aggregate functions, and a JOIN of no more than three tables.
2. The mysql2 connection object used in Node.js. Especially:
  - a. the use of placeholders to parameterize a query
  - b. The purpose of the insertId attribute.
3. The correct use of GET, POST, PUT, PATCH and/or DELETE requests.
4. The correct use of HTTP Status codes: 200, 400, 500.

## ADDITIONAL NOTES

Students are encouraged to review the video lecture materials presented to date. They are a good indicator of what the instructor wants to prioritize.

Here's an overview of what has been covered:

1. A11y
2. JavaScript and jQuery
3. SQL Statements
4. What's an API? What's a Web Service? What's a Web Application?
5. REST (The REST concepts are what the entire course has been structured around!)
6. Client-side versus Server-side technologies
7. Different ways in which APIs are used in an application.
8. The way in which our AWS Lambda code receives HTTP requests and provides HTTP responses.
9. How our AWS lambda code interacts with a database (both one and two-step operations)
10. Asynchronous code. What is it, why is it good, how do we work with it?
11. What is Axios good for and why would you want to use it?