MIS3502 - Exam 1 Study Guide

This is a closed note, closed book exam. The exam will be taken in class, using paper and pencil.

Exam 1 has 100 points total.

Part A of the exam will be comprised of 35 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 70 points total.

Part B of the exam will instruct the student to write several very focused/specific portions of code. Part B is worth 30 points total.

In Part B, students may be asked to write a client-side Ajax call, a client-side error trap(s), and/or SQL statements. Students may be asked to define a client-side, supporting function using arrow notation.

Some topics to consider and review:

GENERAL CONCEPTS

1. URL Encoded data.
2. JSON Objects (plain/simple objects)
3. JavaScript Variable declaration (let, const, var)
4. JavaScript Data types (number, string, boolean, null, undefined, object)
5. Conditional statements.
   1. Checking for bad values: undefined, isNaN, empty string
   2. Comparison operators.
6. For-loops.
7. Function expressions and callback functions (with an emphasis on arrow notation.)

CLIENT-SIDE TECHNOLOGIES

1. Bootstrap classes
   1. Container
   2. Row
   3. Column
   4. alert, and alert contextual classes
   5. btn, and btn contextual classes
2. jQuery

|  |  |
| --- | --- |
| * 1. "#" (hashtag) vs. "." (dot)   2. The ajax method   3. show   4. hide   5. html   6. val | * 1. append   2. addClass   3. removeClass   4. ready   5. click   6. the serialize method |

SERVER-SIDE TECHNOLOGIES

1. SQL commands: CREATE DATABASE, USE, SELECT, INSERT, UPDATE, DELETE, SQL aggregate functions, and a JOIN of no more than two tables.
2. The sync-mysql connection object used in Node.js. Especially:
   1. the use of placeholders to parameterize a query
   2. 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 a rough 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

Finally, as we have worked on our assignments, the following concepts should be clear to each student by now:

* What does Url Encoded Data? What role does it play?
* What does it mean for form data to be *serialized*? What's the difference between an HTML *name* attributed, and an HTML *id* attribute?
* What are hidden input fields used for?
* What’s a "self-closing" HTML tag?