Csci 4131
Exam 1
Wednesday October 27th virtually (online), administered during normal lecture period
9:45am – 11:00am
Logistics, Scope of Material Covered, and Overview

Exam will be administered virtually via GradeScope

You will be enrolled

You will receive an email with information on how to login to gradescope in your university email:

yourX.500id@umn.edu

(mine is: chal0006@umn.edu)

If do not receive an email with information on how to login to gradescope by next Monday (10/25), see me after class or at my office hour (Monday 3pm – 4pm virtually and in 383 Shepherd).

Watch the VIDEO at the link below: How to complete an online assignment using GradeScope:

https://www.youtube.com/watch?v=j_kha2UkeMY&feature=emb_title

Csci 4131 Exam 1: Virtual on GradeScope (so you can take it at home on your computer) The TA's and I will be available on the lecture zoom for questions, issues etc during the exam.

- Scope
  - Lectures 1 – 12 (including in-class Exercises and Examples)
  - zyBooks Homeworks 1-5 and Lecture Preparation Assignments 1-9; Programming Homeworks 1 – 4, Readings, tutorials posted in course Schedule through Lecture 12
  - Additional readings listed in lecture slides from Lectures 1 – 12 (including the tutorials, links)

  75 minutes

  Open Zybook Book, Open Notes.

  No communicating with any human beings *except members of the 4131 teaching staff* in any way shape or form during the exam. Do your own work.

Exam Focus

- First two lectures – History / Fundamentals of the Internet and the Web - character encoding schemes (Ascii/UTF-8) , URL's URI's
- HTML – elements, tables, forms – how to create them, how they work
- HTML 5 Elements
- CSS – Directives to style elements, how to create and use classes and ids, when/how to use inline styling, embedded styling and external style file

More on Exam Focus

- JavaScript – How do you use it to effect behavior of HTML entities (e.g., get data from tables, change data shown in HTML elements (text, color, font, etc.), show pictures, create slideshows)? Window and document methods to interact with the user, create HTML
- Regexes to check values entered in form field (and JavaScript to do so as well)
- Dynamic Behavior – How do you use JavaScript to interact with the DOM – get the value of elements, change the value of elements, change an attribute, append elements, delete elements, etc
- Understand the DOM
- HTTP Protocol – you should know your way around it, especially after current homework assignment

    What do request and response messages look like (URLs again),

    What makes up a request and response message

        (Components of the message (request line, status response line, etc.)

    Basics of a Webserver,

    - what success & failure (error) codes are returned under what conditions?

Yet More on Exam Focus

- JavaScript, unexpected behavior as compared to strongly typed languages (C, C++, Java).
  - When might JavaScript cause an error (race-condition???)
- Events – how do they work, kind of events (DOM events, user events (mouse clicks, mouse hover, focus, etc.)) – how to use events to trigger behavior (for example, execute JavaScript)
- **JavaScript Closures! Where did you use them, how do you make one, how do they work**
- JavaScript and Automated / Timed Behaviors

  (intervals/animations) – our examples in class, your HW
- BASIC JQUERY – as covered in zyBooks
- **Understand what you did on your homeworks, and know how you did it (the concepts and mechanisms behind what you did…)**

Test Format

- Multiple Choice
- Short Answer
- At least one question where you have to create use HTML, CSS, JavaScript – write a small application, a form, containing element or elements (select, or a text input)
- Questions on What does this do / Unscramble this code
- Write short code snippets of HTML, CSS or JavaScript
- Examine this code and add to it or fix it.
- Questions will be based on things you have done in class exercises, examples we have covered in class, your homeworks, and the assigned zyBooks Lecture Preparation and Homework, readings, and tutorials.
- We will not test your knowledge of the Google API, but concepts/code you used to interact with the API, JavaScript – variables, closures, arrays, loops, HTML tables, forms, buttons, elements, timers/intervals, etc.; CSS, Methods of getting information from the DOM (e.g., information from your HW 3 table) are valid.