School of Computer Science

Web and Database Computing 2019

Lecture 36: Course Review Discussion/Guide

seek LIGHT

Exam

Exam Materials

- Translation Dictionary if required

Exam Time/Date/Location

- See Access Adelaide
  (We're not allowed to tell you)
  - Double check at the end of SWOT week and the day before.

Exam Format

- 120 mins + 10 mins reading time
- 120 marks
- 6 Questions
  - Covers the 6 key topics from this course
  - 10 marks per week spent;
  - HTML & CSS (20 marks)
  - JavaScript & Vue (20 marks)
  - User Experience (10 marks)
  - Client/Server & NodeJS (30 marks)
  - Databases (30 marks)
  - Security (10 marks)

HTML & CSS

- HTML
  - Syntax & Semantics
- CSS
  - Syntax
  - Style Precedence
- Validation

JavaScript & Vue

- JavaScript
  - Syntax & Semantics
  - DOM
  - Script loading
- Vue
  - Basic templating
  - Attributes, classes & styles
  - Conditional & List rendering

User Experience

- Basic Principles of good website design
- Cognitive & Kinematic Load
- Semantic HTML
- WCAG 4 Principles of Accessibility

Client/Server & NodeJS

- TCP/IP 5-layer model of the Internet
- URLs
- HTTP requests and Responses
  - Request types; GET/POST/HEAD etc.
- Client vs Server side code
  - AJAX
- Cookies & Sessions
- Express Server architecture
  - Routes
  - Middleware

Databases

- Basic Principles of Relational Databases
  - Advantages/Disadvantages to other storage methods
- E-R models
  - Derive an E-R model from a description
- Relational Schemas
  - Adapt an E-R model to a relational schema
- Queries
  - Construct basic queries
- Performance
  - Order of Operations and Performance challenges

Security

- Best practice for handling passwords and user data
- Different types of threats and mitigation
  - Cross-Site Scripting (XSS)
  - SQL Injection
  - Cross-Site Request Forgery (XSRF)

Questions?

What's happening

Due:

- Final presentations this week.
- Pracs 9 & 10 due by end of SWOT week.

This week:

- Final Presentations
- No Livestream tonight, but there will be one next week
- Reviewing a past exam Friday

Further learning:

- Check out past exams