

INFSCI 2560 Web Technologies & Standards

Exam 2 Study Guide

This guide is designed to be a list of topics that might appear on the exam. Most (if not all) of the answers to these questions are in the weekly resources, lecture slides or links referenced from the lecture slides. You can expect to see a few questions that cover topics from weeks 1-7, but the bulk of the exam will come from weeks 9-12.

REST APIs and Fetch API

1. What is the REST architecture and the 6 constraints?
2. What are resources (in REST) and a resource representation? Know how to design a RESTful API and endpoints.
3. What are the differences between XML and JSON?
4. What is Fetch? What do we use it for?

JavaScript & JSON

1. Understand what a promise is, how to use a promise and chaining.
2. Know JSON syntax and data types.

Model View Controller, Express API, Middleware and Routing

1. Know the differences between front-end and back end development.
2. What is a technology stack? How do you pick one? Describe/Identify common web technology stacks.
3. Describe the role of each layer of the Model, View, Controller (MVC) architecture.
4. Describe the role/function of the middleware, routing , route & query parameters. Be able to use these.
5. What is Express? What do we use it for?

Views, Templating, CRUD, MongoDB & ORMs

- Write simple EJS template code.
- Know the different types of NoSQL databases.
- Know the structure of a NoSQL database.
- Identify which CRUD operations map to each SQL or HTTP operation.
- Know the basic methods available in MongoDB to perform CRUD operations.

Sessions, Cookies, Open Authentication

- Know what an HTTP session and cookie is. Understand how cookies work.
- What are the different types of cookies? What are some attributes of cookies (in the HTTP header)?
- What are the different Cookie Laws? How do they apply to us as web developers?
- How do we manage state on the server-side with cookies?
- What is OAuth? What problems does it solve? How does it benefit the user and developers?