

CSC 415 FINAL EXAM STUDY GUIDE

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1. GENERAL

Networked and Web applications. The Internet protocol stack: application layer, transport layer, and network layer.

2. HTTP

HTTP Protocol: format of HTTP request and response messages; HTTP methods, URL, query strings, request and response headers. Know the commonly used request and response headers. HTTP response status, the 5 categories of response status and their meanings.

HTTP Sessions; implementation of session through cookies, URL-rewriting, or hidden variables.

3. CLIENT-SIDE TECHNOLOGIES

HTML: Commonly used HTML elements and attributes; id, style, name, and event attributes. Commonly used form input elements, form attributes action, method, and enctype.

CSS: Purpose of CSS, style sheets, CSS rules, commonly used CSS properties.

JavaScript: Language basics, primitive and object types, arrays and function objects, the DOM and BOM, the event-handling model, AJAX, JSON and JSON serialization; Make sure you can write JavaScript applications that make AJAX calls (without using a library such as JQuery); using setInterval and setTimeout.

4. SERVER-SIDE PROGRAMMING WITH JAVA SERVLETS

Java Servlets. How servlets process HTTP requests and generate HTTP responses: the Servlet Interface and HttpServlet interfaces, the servlet service methods and the various doXXX methods, servlet initialization; servlet context and context initialization, request dispatchers, web listeners, the concepts of context, session, and request attributes, the concepts of context, request, and session scope. Web listeners. File upload.

Java Server Pages: How they are implemented under the hood, the different types of JSP scriptlet and scriptlet tags, JSTL and EL (Expression Language). Some JSP implicit objects. The MVC design pattern using servlets as controllers and JSPs as views.

5. SERVER-SIDE PROGRAMMING WITH ASP.NET GENERIC HANDLERS

The IHttpHandler interface, the processRequest method and its HttpContext Parameter, the most important properties of HttpContext: Request, Response, Server, Session, Application and their uses, The global asax file and web listeners in ASP.NET. JSON serialization and Deserialization in ASP.NET. File upload.

6. SERVER-SIDE PROGRAMMING WITH ASP.NET MVC

Controllers and controller actions, Access of request data via action parameter injection, the View() methods of the controller class, passing data to views through ViewBag and ViewData, Razor views and the concept of a view engine, programming with Razor.

7. OPEN BOOK PART

There may be an open book part, so bring your notes! (And then again, there might not be.)