CSP 527: Client-Server Applications Development

Texts


Objectives

- Through hands-on experience in developing a client-server database project and developing and managing a client-server Internet project, this course teaches advanced skills for effective design and implementation of client-server applications.
- Students will examine the architectural and functionality decisions, technologies, configurations, languages, and techniques associated with client-server systems.
- Active/passive client/server technologies, as well as public, enterprise-wide, and inter-enterprise approaches to decision and operation support are discussed and implemented.

Prerequisites

- CS 425.

Syllabus

- Basic client/server concepts 2 hours
- Network technologies, architectures, protocols, and NOS 2 hours
- Remote procedure calls, remote data access, and message-passing middleware 2 hours
- Client/server databases 2 hours
- The worldwide Web and Web-based software application architectures 3 hours
- Active and passive client/server technologies 3 hours
- Public, enterprise-wide, and inter-enterprise decision and operations support 2 hours
- Web page and web site design and web servers 2 hours
- Architecture of a browser and the browser object model 2 hours
- HTML, JavaScript, DHTML, Java, and Java applets 3 hours
- Common Gateway Interfaces (CGI's), Active Server Pages (ASP), and Java Server Pages (JSP)) 3 hours
- Internet client/server database access and back-end database servers 2 hours
- State maintenance, channels, and webcasting 2 hours
- XML, DTD, XSL, data islands, XML and DB, XML for decision support 2 hours
- Web services, search engines, and .NET 3 hours
- Client/server application development with TCP/IP 2 hours
- Thin-clients/servers; graphical user interfaces 2 hours
- Security, public/private key cryptography, digital signatures, digital certificates, SSL, firewalls, and proxy servers 2 hours
- Java client/server applications and legacy applications 2 hours
- E-commerce and models for e-business and e-commerce 2 hours

Total 45 hours

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