Syllabus
CSE 7319 Software Architecture and Design
Summer 2007

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Course Overview
This project-based course will focus on Service Oriented Architecture (SOA) which is fast becoming the basis for modern business automation. We will explore various SOA implementations such as those provided by Yahoo, Google and Amazon as a prelude to each student developing their own SOA-based application on the web.

During our sessions we will explore various aspects of XML and SOA. The course will focus on three main themes:

1. XML
2. Web Services and Service Oriented Architecture
3. Integrating voice technology using VoiceXML

Each week there will be assigned readings and assignments and students will be asked to give short presentations based on their readings and software development efforts.

Class Schedule:
Classes will usually be held Monday and Wednesday each week from 12:30 to 3:30 and Thursday evenings from 6:30 - 9:45. However, there are two exceptions:
(1) the first week when we will meet Monday and Tuesday July 3 instead of Mon & Wed
(2) the second week we will meet Tue evening instead of Thursday evening.

Week1: Mon(july 2) Tue (july 3) Thurs (evening july 5)
Week2: Mon(july 9) Tuesday (evening july 10) Wed (july 11)
Week3: Mon(july 16) Wed (july 18) Thurs (evening july 19)
Week4: Mon(july 23) Wed (july 25) Thurs (evening july 26)
Week5: Mon(july 30)

Textbooks:
Thomas Erl. Service-Oriented Architecture.
Frank Coyle. XML, Web services and the Data Revolution
Dan Pilone. UML in a Nutshell

Grading:
Weekly Reports & Presentations  30%
Final Project Report and Presentation  60%
Class Attendance & Participation:  10%
Course Project

In consultation with the instructor, during the first week of class, each student will formulate and pursue a project for the class. Project reports and presentations are due at the last class, on July 30. Reports should be between 10 – 15 pages. During the last class, all students will present their projects.

Possible Topics:
- Integrating VoiceXML into an SOA framework
- Using scripting languages to integrate web services
- Advanced design patterns

Report Requirements
- The report should be organized in sections and subsections
- An abstract should be provided
- A list of annotated references should be included

Report Grading
- Content  65%
- presentation  25%
- organization  10%