CPET 545 SOA and Enterprise Applications
Final Project

Project Period: November 7 – December 11, 2008

Grading Policy
- Weekly Progress Report (10%)
- Final Project Report – December 11 before 3:00 PM (70%)
- Final Project Presentation – December 4:30 PM (20%)

Final Project Guideline and Format

- Project Title
- Project Team
- Executive Summary
- Introduction
  - Challenges/strategies
  - Benefits of SOA
  - Investment and expected ROI
  - Outline of project sections
- The Pilot SOA Project Experience
  - Enterprise Process Automation
  - Service-Orienteration and SOA
  - The Pilot Project
    - Web Service-based SOA
    - Service Inventory
    - Service Contracts and Design
    - Web Services Composition and Orchestration
    - Business Process Management and Execution
  - Conclusion and Lesson Learned
- Scope of the Project
  - Which exactly are the services and applications
  - Constraints and limitations
  - Deliverables
- Project Cost Estimation
  - Technology and Standards
  - Hardware Platform
  - Software tools
  - SOA software analysis, modeling & design, development, deployment, maintenance
  - Staffing
- Project Schedule (MS Project 2003/2007)
  - Tasks
  - Subtasks
  - Milestones
  - Resource allocation
  - etc
• SOA Implementation Risks Management
  o Risk Identifications
  o Risk Analysis
  o Risk Management
• Implementation Phases and Schedule
  o SOA Planning Phase
    ▪ SOA Reference Architecture
      • SOA Layers/Technology/Framework/Standards
      • Presentation/front-end application
      • Service repository
      • Services and business processes
      • Enterprise Resource (data, legacy, etc) Interface
      • Other integration issues and consideration
    ▪ SOA Service Level Agreements
      • Reliability of services
      • Availability of services
      • Quality of services
    ▪ SOA Disaster Recovery
    ▪ SOA Governance
    ▪ SOA User Support Services
    ▪ SOA Hardware and Server Configuration
  o SOA Service Modeling and Design Phase
    ▪ SOA Security
    ▪ SOA Service Inventory
    ▪ SOA Service Modeling
    ▪ SOA Business Process Modeling
  o SOA Building Phase
    ▪ SOA Service Modules Development and Testing
    ▪ SOA Process Services Development and Testing
    ▪ SOA and Enterprise System Integration
  o SOA Deployment and Management
    ▪ SOA for Customer Service Automation
    ▪ SOA for Business Department
    ▪ SOA for Suppliers
    ▪ SOA Monitoring and Management
• Appendix
  o A. Minimum System Requirements
  o B. Software Inventory and Vendors
  o C. Terms and keywords

Consider:
1. Proper schematic diagrams and charts are needed
2. Total Cost of Ownership (TCO)
• Server Hardware
  o Computers/servers
  o Storage and backup
• System and Server Platforms
  o Operating systems
  o Application servers
  o Database servers
  o Communication and messaging servers
• Various Software and Tools for SOA Projects
  o Initial purchase price
  o Installation and configuration
  o Vendor or internal IT staff maintenance/support fees each year
  o Training
• SOA services and business automation process development by SOA layers
  o Presentations + portal
  o Data models (schema)
  o Service contract design
  o Business process model
  o SOA integration and services
• SOA Related Technologies & User Training
  o Computer-based training
  o Web-based training
  o Third-party training
  o In-house training