

Check-List

Senior Project

Assessment of Student Outcomes of the BS in Computer Science of the School of Computing and Information Sciences Florida International University

The School of Computing and Information Sciences evaluates the Senior Projects of its graduating seniors for the purpose of assessing the level of attainment of the Student Outcomes of the BS in Computer Science program.

To assist the evaluators, the project team is asked to identify aspects of the project related to the various Student Outcomes. For each Student Outcome, a checklist of 4 typical project features related to the outcome is provided. There is no requirement or expectation that any particular feature must be present in your particular project. Nor is the checklist exhaustive. Please add to the lists any additional features of your project that relate to any of the Student Outcomes.

For each checklist item represented in your project, please document where that item is evidenced in your project by noting the **deliverable** (*Feasibility Study, Requirements Specification, Design Document or Final Document*) and **section** or **page number**.

Your responses to this survey will be used solely for the purpose of assessing the Student Outcomes of the BS in Computer Science program of the School of Computing and Information Sciences at FIU. This survey is expressly NOT for assessment of student performance in the SCIS Senior Project course for assignment of letter grade, nor for assessment of the instructor(s).

Project Title Quota System

Semester & Year Fall 2010

Moderator (Faculty / Industry Sponsor): Dr. Masoud Sadjadi

Team Members: Eduardo Peña _____

Vanessa Ramirez _____

Eduardo Tibau _____

Student Outcome (a): Demonstrate proficiency in the foundation areas of Computer Science including mathematics, discrete structures, logic and the theory of algorithms

N/A Project utilizes some knowledge of mathematics

X Project utilizes some statistical techniques

One of the main parts of the project are the reports. We used stacking bar charts to represent quota usage for the different resources. Furthermore, these reports can be viewed by absolute amounts or by percentage composition. (This can be found in the user interface)

N/A Project utilizes some elements of computational or mathematical logic

N/A Project utilizes some aspects of theoretical computer science (e.g. automata)

Other

Student Outcome (b): Demonstrate proficiency in various areas of Computer Science including data structures and algorithms, concepts of programming languages and computer systems

X Project demonstrates knowledge of data structures

See the class diagrams found in Final Deliverable => Detailed Design => Static Model

X Project demonstrates knowledge of algorithm development

See the algorithm design section found in Final Deliverable => Detailed Design => Algorithm Design

X Project demonstrates knowledge of programming language concepts

See the class diagrams found in Final Deliverable => Detailed Design => Static Model. They show use of different design patterns.

X Project demonstrates knowledge of computer systems

To even understand the problem that we are tackling we need knowledge of computer system because the resources we are managing are Virtual Environments.

Other _____

Student Outcome (c): Demonstrate proficiency in problem solving and application of software engineering techniques

x Project objectives are clearly specified and analyzed

See the introduction and feasibility study found in the Final Deliverable. There is an analysis of possible solutions to the problem as well as the problem definition

N/A Project evidences consideration of design alternatives

x Project utilizes sound implementation techniques

The use of a web service with a proper WSDL which is the contract for all the requests that the system handles, and sets forth all the interaction with out system.

x There is evidence that the implementation was tested and/or evaluated

See Final Deliverable => System Validation

Other _____

Student Outcome (d): Demonstrate mastery of at least one modern programming language [and proficiency in at least one other]

x Project was implemented using a modern programming language

Use of Java web services, php server pages, and heavy JavaScript using jQuery

x Project code is modular and/or reusable and is documented

The structure of the different subsystems can be found in Final Deliverable => Detailed Design => Static Model. These diagrams evidence a clear structure of classes. See QuotaSystemSkeletonTemplate.java in the WS for a documented example.

x Project code is reasonably efficient rather than “brute force”

See Final Deliverable => Detailed Design => Algorithm Design

x Project code is understandable and meets specifications

See Final Deliverable => System Validation for meeting specification.

Other

Student Outcome (e): Demonstrate understanding of the social and ethical concerns of the practicing computer scientist

 x Project documents sources and references

All the documents contain a Reference section.

 N/A Project identifies and addresses any relevant ethical issues

 N/A Project identifies and addresses any relevant social issues

 x Project documents anticipated impact on users/clients

See Final Deliverable => Feasibility Study => Recommendation for out expected impact on to the users with the chosen project.

Other

Student Outcome (f): Demonstrate the ability to work cooperatively in teams

 x Project evidences equitable participation by team members

See Final Deliverable => Appendix J (Diary of Meetings)

 x Project team negotiated consensus and/or compromise

This was done when defining requirements and use cases.

 x Project team set out and followed a schedule for timely completion

See Final Deliverable => Project Plan, among other things, there is a Gannt chart with the schedule

 x Project team activity is documented

See Final Deliverable => Appendix J (Diary of Meetings)

Other

Program Outcome (g): *Demonstrate effective communication skills*

 x Project presentations captured the essential features of the project

Even though there is no freedom at all when designing the presentations, which is a really bad thing. The final presentation captures most of the essential features.

 x Project artifacts communicate and/or project the project essentials

See any of the presentation for Deliverable 1-3 or Final

 x Project reports are well organized and written

All of the documents follow the same format and are organized into well defined sections. See any deliverable

 x Project presenters are able to communicate their ideas to a non-CS audience

Use of diagrams and some visual aids in the presentation.

Other _____

Program Outcome (j): *Have experience with contemporary environments and tools necessary for the practice of computing*

 x Project utilizes contemporary design tools

Used Visual Paradigm to develop all the UML Models

 x Project implementation utilized a modern IDE

Eclipse 3.6 with several plugins for developing web services and web applications

 x Project utilized validation/testing tools

JUnit for testing the QS Database Management Server and SoapUI to test the Web service requests.

 x Project was demonstrated using appropriate presentation aids

A real demo will be shown during the final presentation and a Camtasia recording will be used as backup (just in case something goes wrong)

Other

Your further observations about of the BS in CS Student Outcomes **evidenced in this project** would be appreciated.