**University Catalog Management System Version 2.0**

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Senior Project

CIS 4911 – U01

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ABSTRACT

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## Introduction

This chapter introduces the University Catalog Management System version 2.0 including what its purpose is, and what can be solved using it. In addition, this chapter defines the scope for the system, and the different terms (acronyms and abbreviations) that will be used throughout the different document that will be done for the project. Finally, a brief overview for the system is provided.

## Problem Definition

Currently, having hard copies of university catalog makes it difficult for advisors to find out differences between programs of study, tracks of program, changes made in the requirements for a degree, etc. For this reason, the University Catalog Management System tries to simplify the work for advisors, so that they can help out students faster.

## Design Methodology

Design methodology used e.g., identify software process model, ease of creating a design from the systems requirements, types of models (UML models) used to represent the design

## Terminology

## Definitions

* Catalog : Complete list of items ordered systematically.
* User : Any person that will have access to the system, either to just view information, or to edit data in the system.
* Administrator : User that has control over all other users within their dgu, such as advisors and students.
* Super Admin : User that will manage the entire system including administrator.

## Acronyms

* UCMS : University Catalog Management System
* V2.0 : Version 2.0
* SQL : Structured Query Language
* PHP : Hypertext Pre-Processor
* JS : JavaScript
* GUI : Graphical User Interface
* HTML : Hyper Text Markup Language
* CSS : Cascading Style Sheet
* Yii : Yes It Is! Framework.
* CIS : Computer and Information Sciences
* FIU : Florida International University.
* MVC : Model View Controller
* DGU : Degree Granting Unit

## Abbreviations

* Db : Database
* Admin : Administration

## Overview of the System

## System Design

Introduce the system decomposition chapter (one or two paragraphs)

## Overview

high-level description of the system design (architecture) e.g., provides a package diagram showing the major subsystems and briefly describes each subsystem. Relate the system decomposition to the requirements of the system. Use at least two (2) architectural patterns.

## Subsystem Decomposition

Decomposition – provide a detailed description for each of the major subsystems. Identify the requirements associated with each subsystem

## Hardware and Software Mapping

map subsystems to h/w and s/w. The h/w and s/w are for the systems to be implemented. May include a deployment diagram showing the associations between the subsystems and hardware

## Persistent Data Management

identify data that needs to be stored and the structure of the data. Use a data dictionary to represent the initial data extracted from the use cases

## Security / Privacy

describe user authentication processes, encryption of data, and use of firewalls or security servers

## Detail Design

Introduce the detailed design chapter (one or two paragraphs.

## Overview

briefly describe the behavior and structure of each subsystem.

## Static Model

detailed description of the structure for each subsystem. May include detailed class diagrams. Place diagrams (e.g., minimal class diagram, detailed class diagram per subsystem) inline. Use at least four (4) design patterns

## Dynamic Model

state machine diagram for the main control object in each subsystem. Include the design of the ***main algorithms*** used in the problem solution. Refinement of the sequence diagram from the analysis model. Place diagrams inline

## Code Specification

describe the class interfaces (attributes and method signatures) and constraint (invariants, pre-condition and post-conditions) for the main control object in each system. Code should be in Appendix C

## Glossary

## Definitions

* Catalog : Complete list of items ordered systematically.
* User : Any person that will have access to the system, either to just view information, or to edit data in the system.
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* CSS : Cascading Style Sheet
* Yii : Yes It Is! Framework.
* CIS : Computer and Information Sciences
* FIU : Florida International University.
* MVC : Model View Controller

## Abbreviations

* Db : Database
* Admin : Administration

## Appendix

## Appendix A – User Case Diagram (Use Cases being implemented)

## Appendix B – User Cases being implemented

## Appendix C – Documented Class Interfaces

Documented class interfaces (code) for the subsystem(s) you will implement and the constraints.

## Appendix D – Diary of meetings and tasks.

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| Diary Entry 1 | |
| Date | Wednesday, September 3rd, 2014 |
| Location | ECS 341 |
| Start | 7:00 PM |
| End | 8:00 PM |
| Attendees | * Tim Downey * Jose Astudillo * Christopher Sutton |
| Agenda | * Review the existing system * Get requirements for the project |
| Summary | * Defined tools to be used for the development * Explanation of the current system * Brief definition of the functionalities to be implement for this version of the system |
| Assigned Tasks | For both team members:   * Explore current system * Get familiar with the tools to be used. |

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| Diary Entry 2 | |
| Date | Sunday, September 7th, 2014 |
| Location | JCCL Lab |
| Start | 4:00 PM |
| End | 7:00 PM |
| Attendees | * Jose Astudillo * Christopher Sutton |
| Agenda | * Start working on project plan * Revise Feasibility Analysis document * Revise SRD * Work on Trello |
| Summary | * Trello was set up. * Worked on Feasibility document * Worked on SRD. * Brief work on project plan. |
| Assigned Tasks | Jose: work on SRD.  Christopher: work on feasibility document. |

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| Diary Entry 3 | |
| Date | Monday, September 8th, 2014 |
| Location | ECS 341 |
| Start | 7:00 PM |
| End | 8:00 PM |
| Attendees | * Jose Astudillo * Christopher Sutton * Tim Downey |
| Agenda | * Run v1.0 locally * Discuss functionalities to be implemented. |
| Summary | * Tried to run v1.0 locally. * Discussed about adding new user. Now, there will be 4 types of users: admin, student, advisors, and the regular visitor. * Christopher was assigned to work on administrator modules; additionally, he might do some work on regular user. * Jose was assigned to work on advisor module mainly; however, he might work also in the student module. |
| Assigned Tasks | * Keep trying to get v1.0 to run locally. * Start writing use cases, and create sequence diagrams. |

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| Diary Entry 4 | |
| Date | Wednesday, September 10th, 2014 |
| Location | ECS 341 |
| Start | 7:00 PM |
| End | 8:00 PM |
| Attendees | * Jose Astudillo * Christopher Sutton * Tim Downey |
| Agenda | * Run v1.0 of CMS locally |
| Summary | * Got v1.0 runnning |
| Assigned Tasks | * Keep trying to get v1.0 to run locally. * Start writing use cases, and create sequence diagrams. * Familiarize with Yii framework * Get use to the database |

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| Diary Entry 5 | |
| Date | Monday, September 15th, 2014 |
| Location | ECS 341 |
| Start | 6:30 PM |
| End | 7:30 PM |
| Attendees | * Jose Astudillo * Christopher Sutton * Tim Downey |
| Agenda | * Discuss what next to be done |
| Summary | * Discussed what needs to be done |
| Assigned Tasks | * Complete documents for use cases. * Make sequence diagrams from the use cases. * Create UI for the use cases to be implemented. |

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| Diary Entry 6 | |
| Date | Monday, September 29th, 2014 |
| Location | ECS 341 |
| Start | 6:30 PM |
| End | 7:30 PM |
| Attendees | * Jose Astudillo * Tim Downey |
| Agenda | * Talk about create, edit, and propose prospective catalogs. |
| Summary | * Discussed about the flow for creating, editing, and proposing prospective catalogs. |
| Assigned Tasks | * Keep writing use cases, and creating diagrams |

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| Diary Entry 7 | |
| Date | Wednesday, October 1st, 2014 |
| Location | ECS 341 |
| Start |  |
| End |  |
| Attendees | * Tim Downey * Christopher Sutton |
| Agenda | * Discuss about Yii framework |
| Summary | * Talked about the controller and view set ups for degree unit |
| Assigned Tasks |  |

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| Diary Entry 8 | |
| Date | Monday, October 6th, 2014 |
| Location | ECS 341 |
| Start | 6:30 PM |
| End | 7:30 PM |
| Attendees | * Jose Astudillo * Tim Downey * Christopher Sutton |
| Agenda | * Discuss changes to the database for implementing prospective catalogs. * Discuss changes for implementing new type of users. * Discuss algorithm for flow chart implementation. |
| Summary | * Discussed changes to the database for implementing prospective catalogs. * Discussed changes for implementing new type of users. * Permission granted by Tim Downey to work in flow chart. |
| Assigned Tasks | Jose:   * Start creating view for the system. * Make changes to the database so that it can accept new users. * Make changes to the catalog table so that it can work with prospective catalogs.   Chris:   * Work on flow chart algorithm |

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| Diary Entry 9 | |
| Date | Wednesday, October 8th, 2014 |
| Location | ECS 341 |
| Start |  |
| End |  |
| Attendees | * Tim Downey * Christopher Sutton |
| Agenda | * Show graphical API to use on the flow chart implementation |
| Summary | * Two API were show: Tree Map, and Org Chart. |
| Assigned Tasks | * Put required information into charts which can then be linked at a later date. |

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| Diary Entry 10 | |
| Date | Friday, October 10th, 2014 |
| Location | ECS 341 |
| Start |  |
| End |  |
| Attendees | * Tim Downey * Christopher Sutton |
| Agenda | * Discussed table structures |
| Summary | * Learned how to use tables created as a base point for linking. * Explored tables currently being used by panther soft. |
| Assigned Tasks |  |

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| Diary Entry 11 | |
| Date | Monday, October 13th, 2014 |
| Location | ECS 341 |
| Start | 6:30 PM |
| End | 8:30 |
| Attendees | * Jose Astudillo * Christopher Sutton * Tim Downey |
| Agenda | * Discuss concern about the presentation * Talk about topic suggested to automate students schedule for the next semester. * Discuss pop up implementation. |
| Summary | * The automation need was outside the project according to Tim Downey. * Decided to implement the flowchart using DOM. |
| Assigned Tasks | Jose:   * Work on pop up.   Christopher:   * Start working on flowchart DOM. |

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| Diary Entry 12 | |
| Date | Wednesday, October 15th, 2014 |
| Location | ECS 341 |
| Start | 6:30 PM |
| End | 7:30 PM |
| Attendees | * Jose Astudillo * Christopher Sutton |
| Agenda | * Discuss Yii framework. * Discuss process to use DOM to create flow chart. |
| Summary | * Discussed problems using Yii active forms. * Discovered a large data gap; no pre/co requisites were listed in the databases. * Chris proposed a schema to implement which was accepted by Tim Downey. |
| Assigned Tasks | Jose:   * Keep working on pop up forms.   Christopher:   * Keep working on flow chart implementation. |

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| Diary Entry 13 | |
| Date | Friday, October 17th, 2014 |
| Location | ECS 341 |
| Start |  |
| End |  |
| Attendees | * Tim Downey. * Christopher Sutton |
| Agenda | * Show Downey new tables. |
| Summary | * Chris was provided with an example of DOM programs. |
| Assigned Tasks | * Ensure courses can be moved dynamically around the page. |

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| Diary Entry 14 | |
| Date | Monday, October 20th , 2014 |
| Location | ECS 341 |
| Start | 6:30 PM |
| End | 8:30 PM |
| Attendees | * Jose Astudillo * Christopher Sutton * Tim Downey |
| Agenda | * Discuss about implementation of pop up from using Yii active form, or using JQuery. * Show current flexibility and layout of the dynamic flow chart form. |
| Summary | * Discussed methods that would allow saving the layout and reloaded on refresh. * Discussed about using JQuery. |
| Assigned Tasks | Jose:   * Keep working on forms.   Christopher:   * Look at methods for saving layout. |

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| Diary Entry 15 | |
| Date | Wednesday, October 22nd, 2014 |
| Location | ECS 341 |
| Start | 6:30 PM |
| End | 8:30 PM |
| Attendees | * Jose Astudillo * Christopher Sutton * Tim Downey |
| Agenda | * Discuss problems in flowchart. |
| Summary | * Decided to use JQuery to pop up form for the different inputs of the prospective. * Fixed minor bug issues. * Showed current dynamic functionality. |
| Assigned Tasks | Jose:   * Keep working on pop up forms.   Christopher:   * Working on saving layout. |

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| Diary Entry 16 | |
| Date | Friday, October 24th, 2014 |
| Location | ECS 341 |
| Start |  |
| End |  |
| Attendees | * Tim Downey * Christopher Sutton |
| Agenda | * Discuss program. |
| Summary | * Errors fixed in JS. * Left columns fixed. * Discussed on saving object location to database. |
| Assigned Tasks | Work on table that can link a degree track to a flowchart id.  Christopher: |

## References