**MINISTRY OF EDUCATION AND TRAINING**

|  |
| --- |
| **FPT UNIVERSITY** |
| **Capstone Project Document** |
| **Course Scheduling** |
|  |
| |  |  | | --- | --- | | **Course Scheduling Team** | | | **Group Member** | Nguyễn Sơn Hà – SE02618  Hoàng Minh Đức – SE02551  Lưu Thành Công – SE02543  Nguyễn Văn Hoài – SE90191 | | **Supervisor** | Nguyễn Tất Trung  Phạm Quang Dũng | | **Capstone Project code** | CourseScheduling |   Hanoi, 24/5/2015 Acknowledgements |

# Definitions and Acronyms

# Contents

[Acknowledgements 2](#_Toc420958678)

[Definitions and Acronyms 2](#_Toc420958679)

[Contents 3](#_Toc420958680)

[1 CHAPTER 1: INTRODUCTION 4](#_Toc420958681)

[1.1 Purpose 4](#_Toc420958682)

[1.2 Project Information 4](#_Toc420958683)

[1.3 The People 4](#_Toc420958684)

[1.3.1 Supervisor 4](#_Toc420958685)

[1.3.2 Team members 4](#_Toc420958686)

[1.4 Background 5](#_Toc420958687)

[1.5 Literature Review 5](#_Toc420958688)

[1.6 Ideas 5](#_Toc420958689)

[1.7 Proposal of System 5](#_Toc420958690)

[1.7.1 Our proposal system 5](#_Toc420958691)

[1.7.2 Introduction about our proposal system 5](#_Toc420958692)

[2 Chapter 2. Project Management Plan 6](#_Toc420958693)

[2.1 Purpose 6](#_Toc420958694)

[2.2 Project Organization 6](#_Toc420958695)

[2.2.1 Our Proposal System 6](#_Toc420958696)

[2.2.2 Roles and Responsibility 6](#_Toc420958697)

[2.3 Project Management Plan 8](#_Toc420958698)

[2.3.1 Task 8](#_Toc420958699)

[2.3.2 Meeting Minutes 8](#_Toc420958700)

[2.3.3 Coding Conventions 8](#_Toc420958701)

[2.3.4 Risk Management Plan 9](#_Toc420958702)

[2.3.5 Risk probability and impact 10](#_Toc420958703)

[2.3.6 Communication Plan 10](#_Toc420958704)

# CHAPTER 1: INTRODUCTION

## Purpose

The introduction chapter provides main information of project about team’s members and project’s objectives.

## Project Information

* Project name: **Course Scheduling**
* Project code: **Course Scheduling**
* Project group name **:**
* Product type: **Website Application**
* Timeline: **From 10th May 2015 to 30thAug 2015**

## The People

### Supervisor

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Full name** | **Phone** | **E-Mail** | **Title** |
| Supervisor | Nguyễn Tất Trung | 0904399139 | [*trungnt@fpt.edu.vn*](mailto:trungnt@fpt.edu.vn) | Lecturer |
| Supervisor | Phạm Quang Dũng | 0947732280 | [*dungpq1@fsoft.com.vn*](mailto:dungpq1@fsoft.com.vn) |  |

*Table 1.1: Supervisor information*

### Team members

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Full name** | **Student code** | **Phone** | **E-mail** | **Role in Group** |
| 1 | **Nguyễn Sơn Hà** | SE02618 | 0945488693 | [*hansse02618@fpt.edu.vn*](mailto:hansse02618@fpt.edu.vn) | Leader |
| 2 | **Hoàng Minh Đức** | SE02551 | 0904634667 | [*duchmse02551@fpt.edu.vn*](mailto:duchmse02551@fpt.edu.vn) | Member |
| 3 | **Lưu Thành Công** | SE02543 | 01656083093 | [*congltse02543@fpt.edu.vn*](mailto:congltse02543@fpt.edu.vn) | Member |
| 4 | **Nguyễn Văn Hoài** | SE90191 | 01659029841 | [*hoainvse90901@fpt.edu.vn*](mailto:hoainvse90901@fpt.edu.vn) | Member |

*Table 1-2: Team member’s information*

## Background

## Literature Review

## Ideas

Scheduling Courses is always one of the hardest work for FPT University because of conflicts about time of teachers and the change of timetable in every semester. Our project will apply algorithms to do this work automatically by computer and also provide a tool to help them create timetable easer in the website.

## Proposal of System

### Our proposal system

### Introduction about our proposal system

# Chapter 2. Project Management Plan

## Purpose

This chapter describes about project team’s structure and plan of the project. All members will use this chapter as a guideline to work in this project.

## Project Organization

### Our Proposal System

This figure above describes the information and products flow lifecycle process model. Course-Scheduling project uses the Iterative and Incremental Software Process Model.

The Iterative and Incremental Software Process Model is most use when the scope of the project is big, the major requirements were defined clearly, some more detail will be added in time, and for the newbie group in software development. By using this software process model, we break down the developing system task into series of smaller tasks which be completed separately, evaluated, and subsequently re-worked until the system’s performance adequately. In addition, the iterative model is easier than other models when the issues are discovered. They are fed back to the team, and solutions found while the project is still in development.

### Roles and Responsibility

#### Organization Structure

|  |  |
| --- | --- |
| **Role** | **Responsibility** |
| Project Manager | Planning and defining scope, developing schedules, allocating resources, coordinating communication, generally responsible for keeping the team’s focus on main goal, and tries to keep the project team focused on the right goal at a time. |
| Technical Leader | Responsible for the underlying architecture for the software program, assigning tasks, mentoring people, reporting and updating regular associates RAG status. Also technical leader is a reference book for other software programmers. |
| Business Analyst | Eliciting requirement, analyzing and documenting requirements, communicate requirements, identifying solution and verifying solution meets the requirements, leads and coordinates use-case modeling. Outline the system’s functionality. |
| Test Leader | Responsible for test execution, including test set-up and test run, evaluation of test run and error recovery, defect logging and test results recording. |
| Developer | Involve to code product |
| Designer | Involve to design product |
| Tester | Involve to test product |

#### Project Team Members

|  |  |
| --- | --- |
| **Team Member** | **Role** |
| HaNS | Project Manager, Developer, Tester, Designer |
| DucHM | Technical Leader, Test Leader, Developer, Tester, Designer |
| CongLT | Business Analyst, Developer, Tester |
| HoaiNV | Business Analyst, Developer, Tester |

#### Tools and Techniques

* **Programming languages:** Java, HTML5, CSS3, JQuery.
* **Framework:** MVC Spring
* **Software Architecture:** Web Service (REST architecture).
* **Process Model:** Iterative and Incremental Software Process Model.
* **Version Control:** Github.
* **IDEs**: Spring Tool Suite
* **DBMS**: MySQL v5.5
* **UML tools:** Enterprise Architect v12, Astah Professional v6.9.0
* **Manage tools:**  Microsoft Project Professional 2013.
* **Web server:** Apache2.0.

## Project Management Plan

### Task

Refer to file Course-Scheduling.mpp

### Meeting Minutes

All meeting minutes will be written follow this template:

| ***Meeting/Project Name:*** | *CourseScheduling* | | | | |
| --- | --- | --- | --- | --- | --- |
| ***Date of Meeting:*** | *01/06/2015* | | ***Time: (Type)*** | *3 hours (Skype)* | |
| ***Meeting Called By:*** | *HaNS* | | ***Location:*** | *B109* | |
| ***Note Taker:*** | *DucHM* | | ***Time Keeper:*** | *CongLT* | |
| 1. Meeting Objective: | | | | | |
| Brainstorming all functions of systems | | | | | |
| 2. Attendance | | | | | |
| ***Name*** | ***Roles*** | ***E-mail*** | | | ***Phone*** |
| Nguyen Son Ha | Project Manager | [hansse02618@fpt.edu.vn](mailto:hansse02618@fpt.edu.vn) | | | 0945488693 |
| Hoang Minh Duc | Technical Leader, Test Leader | [duchmse02551@fpt.edu.vn](mailto:duchmse02551@fpt.edu.vn) | | | 0904634667 |
| Luu Thanh Cong | Business Analyst | [congltse02543@fpt.edu.vn](mailto:congltse02543@fpt.edu.vn) | | | 01656083093 |
| Nguyen Van Hoai | Business Analyst | [hoainvse90191@fpt.edu.vn](mailto:hoainvse90191@fpt.edu.vn) | | | 01659029841 |
| 3. Content: | | | | | |
|  | | | | | |

### Coding Conventions

Follow Java coding convention. See the reference for detail:

<http://www.oracle.com/technetwork/java/codeconvtoc-136057.html>

### Risk Management Plan

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **No** | **Name** | **Root Cause** | **Avoidance plan** | **Contingency** |
| R1 | **Member**  **un-cooperating** | Conflict between team members. | Team building to connect member with each others. | Finding root conflict (social relationship, private conflict) |
| R2 | **Team member do not have enough appropriate skill, experience** | All member are students. | When developing project plan, estimating more time for study new technique. | Trying to contact with expertise to learn from their experience and get their advices. |
| R3 | **Changing in the way of executing** | Creative members. |  | Meeting for evaluating, and changing the way to execute the project if it's really better. |
| R4 | **Over deadline** | Low responsibility in working of members | Estimate time to plan task appropriate with ability of team members and hold daily meeting to keep track on project status day by day. | Other team members will support to help the task can complete in time. |
| R5 | **Low quality infrastructure of the internet** | Incident |  | Use other internet like 3G. |
| R6 | **Lack of real data** | Can not contact with people who can provide team the real data. |  | Create dummy data based on the knowledge about this business of team members. |

### Risk probability and impact

High

Probability

Medium

Low

|  |  |  |
| --- | --- | --- |
|  | R5 |  |
|  | R1 | R4 |
| R3 | R2 | R6 |

Low

Medium

High

Impact

### Communication Plan

*Weekly meeting schedule:* By using Iterative and Incremental Process Model, Footprints Project system will be divided into a series of small tasks, each task will be assigned to team members by Technical Leader and depend on difficulty, and Technical Leader will assign deadlines for each task. We will have meeting every Tuesday and Thursday to keep track about our works in a week then discuss about the tasks we have to done in next week.

*Unscheduled meeting*: If any unplanned or important situation happened, we have to hold a meeting to find solution or discuss about what we need to do in this situation.

*Communication channel*: Our main communication channels are face-to-face meeting, Email and Facebook.