**MINISTRY OF EDUCATION AND TRAINING**

**FPT UNIVERSITY**

Capstone Project Document

Website of Law Firm Management System

Report #2 – Software Management Plan

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| Group 14 | |
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| Capstone Project code | LFMS |

- Ha Noi, 09/2014 –

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## Problem Definition

### Name of this Capstone Project

English: Website of Law Firm Management System

Vietnamese: Hệ thống quản lý hồ sơ án tại văn phòng luật sư

Abbreviation: LFMS

### Problem Abstract

Today, the emergence of the law office is very popular. Every industry, every job when disputes occur are needed to the law office to advice and resolve. However, current law office management system, mostly using traditional methods. No digitization and no online. Cause difficulties and time-consuming to manage. So, to help law offices can easily manage and store Cases, LFMS born.

### Project Overview

#### The Current System

Below are current system of Thuan Nguyen Law Office:

* Advantages:
  + Online data storage and centralized
  + Easy to manage than traditional methods
* Disadvantages:
  + Many errors occur during the use
  + Difficult to maintain
  + Limit the number of computers can use

#### The Proposed System

The new system will have five components:

* Case Management: Manage all information of Case by customers, general information, operation event, lawyer viewpoint, people related, document related and Used Service. Assign one or many lawyer into Case.
* Customer Management: Add new, edit customer information and delete customer. Stored for use in later Cases.
* Staff Management: Add new, edit staff information and deactivate staff. Division of roles in the system used.
* Service Management: Add new, edit service information and delete service. Use for Used Service.
* Office Management: Add new, edit office information and deactivate office. Can only be used by “super admin” – the admin user role have StaffId is 1.

Advantages over the old system:

* More stable
* Easy upgrade and maintenance
* Multiple computers can use at the same time by web platform
* Many other customer support function

#### Boundaries of the System

* The system is designed for Thuan Nguyen law offices and the same law office.
* System used internally.
* The language of the system is Vietnamese.
* The system does not include human resource management, budget and attendance.

#### Development Environment

N/A

## Project organization

### System Process Model

With the schedule of weekly reports and a huge of information every week, the software will be developed by using Rational Unified Process model which is very simple and easy for a new group want to make a big project. With RUP model, developing process will include four main phases:

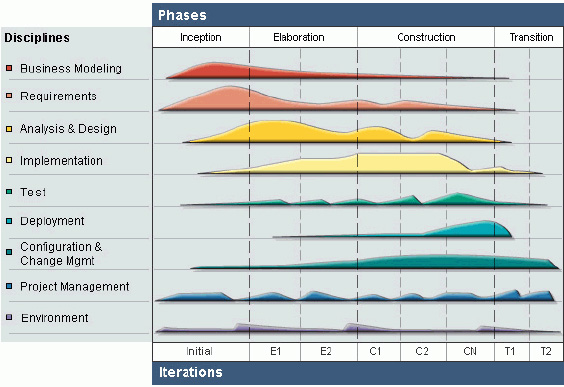


Figure 1: Rational Unified Process Process Model

* **Inception Phase**: This is the first phase of process. In this startup phase, we should provide business case of the system and determine the scope of project. Besides, we have to create the project management plan that has project schedule, effort estimation and risk management etc. At the end of this phase, we should check the objectives of project and decide whether to continue development or not. Hence, Inception phase must be properly planned and done. Based activities of this phase:
  + Study business case and feasibility study of project.
  + Complete draft ERD of system.
  + Complete draft screen prototypes.
  + Complete draft requirements.
  + Determine project scopes.
  + Complete project management plan.
* **Elaboration Phase**: The objectives of this phase are to determine appropriate architectural and construction plan for the project. The architectural decision needs to be made for the entire system, and to describe most of the requirements of system. At the end of this phase, we must examine the objectives and scopes, the choice of architecture and decide whether to proceed to the next phase. Based activities of this phases:
* Complete user requirement specification.
* Complete ERD, final prototypes.
* Complete Software Requirement Specification.
* Complete database model.
* Complete System Architecture Design.
* **Construction Phase**: Construction is the third phase of RUP lifecycle. In this phase, we must have done all the coding and testing work. After coding, developers will do unit test themselves, then test team will do functional test and regression test when finishing all. Based activities of this phase:

- Complete coding and unit test.

- Complete functional and regression test.

- Complete user manual.

* **Transition Phase**: Transition is the final phase of the RUP lifecycle. In this phase, project team has to deploy the application and give it to users. The next step is receiving feedback from users to identify the problems and then complete the system. Based activities of this phase:

- Deploy the system.

- Deliver source code.

- Complete all reports and documents.

### Roles and Responsibilities

Figure 2: Roles and Responsibilities

|  |  |  |  |
| --- | --- | --- | --- |
| # | Name | Role | Responsibilities |
| 1 | Nguyễn Văn Sang | Supervisor | Support business and solution  Tracking and review project |
| 2 | Lê Duy Hoàng | Project Manager  SRS Analysis  Designer  Developer Leader  QA Leader | * - PM has responsibilities to develop the project plan and manage project stakeholders, project team, project risk, project schedule, project budget, project conflicts.   - Analyze business.  - Ensure that the Project Team completes the project.  - Provide suitable technology solutions, tools for project development process.  - Design and develop interfce.  - Create coding guidelines, coding convention and standards.  - Cooperate with Developer to create software specification requirement (SRS), architectural design (SAD) and software detailed design (SDD).  - Review document, product, and reports.  - Support other team members. |
| 3 | Đặng Nguyễn Khiêm | Member  SRS Analysis Leader  Developer  QA | - Analyze business. Understand business related to project topic.  - Present and explain business information to other members.  -Create and review SRS, SAD and SDD documents.  - Coding function.  - Writing report. |
| 4 | Trần Anh Tuấn | Member  SRS Analysis  Developer  Tester Leader | - Create software specification requirement (SRS).  - Coding function.  - Develop the test plan based on project plan and SRS, SDD documents.  - Create test data for all functions.  - Create test cases for the system, both in document and script.  - Execute test to ensure all functions fulfill requirements and make test report. |
| 5 | Phạm Văn Duy | Member  Designer Leader  Developer  SRS Analysis  Tester | - Analyze business, create software specification requirement (SRS).  - Develop a plan to draw and control architectural design.  - Create and review SRS, SAD and SDD documents.  - Design and create database.  - Coding function  - Execute test to ensure all functions fulfill requirements and make test report.  - Support other team members. |

Table 1: Roles and Responsibilities

### Tools and Techniques

#### Tools

* Microsoft Visual Studio 2012: Integrated Development Environment (IDE)
* Microsoft SQL Server 2008: Database Management System (DBMS)
* Microsoft Office: Create documents and reports
* Software Ideas Modeler: Draw diagrams
* TortoiseSVN: Subversion repository for controlling source code
* Firefox: Environment to use and testing project

#### Techniques

* ASP .NET MVC4
* Entity Framework (EF) 5
* Ajax, JQuery

## Project management plan

### Tasks

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| # | Task | Description | Output | Resource Needed | Dependencies and Constraints | Risk |
| 1 | Create Project Introduction | Research to understand the goal of the project. Summary the features that user needs | Project Introduction | 4 people for 3 days | N/A | Goal of the project may be unclear |
| 2 | Project Management Plan | Estimate the works needed for project. Allocating resources to complete the project in time | Project Management Plan | 4 people for 4 days | The project must be completed in 15 weeks | Differences in skill and experience of team member can lead to the delay of project’s completion date |
| 3 | Software Requirement Specifications | Describe user’s requirements in detail | SRS document | 4 people for 8 days | Based on Project Management Plan. All the charts and graphs in this document must comply with UML 2.0 | User’s requirement can change as business changes. Team misunderstands what user wants |
| 4 | Software Design Description | Decide coding framework and architecture. Create ERD, class diagram and sequence diagrams | Software Design Description document | 4 people for 5 days | Based on completion of SRS | Team member may not have experience with the selected framework. Requirements in SRS may not contain enough information for detailed design |
| 5 | Design Database | Database logical and physical design | Logical design, physical design diagram | 4 people for 1 days | Based on completion of ERD | Team is lack of experience in design database with large amount of data |
| 6 | Create Development Framework | Create a solution based on selected framework. Create common classes and web pages in solution. Implement common functions | A coding solution | 4 people for 2 days | Based on Coding framework in SDD | N/A |
| 7 | Design Layout | Create web based layout for system | Web based layout | 4 people for 2 days | Based on description in SRS | Different browsers have different behaviors and supported features |
| 8 | Implementation | Develop the system | Software source code | 4 people for 25 days | Based on Development Framework, description in SRS and SDD | Defect and incident are two main factors can lead to the delay of project completion |
| 9 | Test | Integration Test and Acceptance Test | Test software source code | 4 people for 5 days | N/A | The newly discovered defects may requires a lot of work to fix it |
| 10 | User Manual | Create User’s Manual Document | User’s Manual document | 4 people for 5 days | Based on completed software package | N/A |

Table 2: Tasks

### Task Sheet: Assignments and Timetable

See in Tasksheet Final and Project Plan comes with this document.

### All Meeting Minutes

See in Meeting Minutes folder comes with this document.

## Convention Rules

Summary:

* Naming Convention.
* Indentation.
* Declaration.
* Code Examples.

Follow “Code Conventions for the C# Programming Language, by Microsoft:

<http://msdn.microsoft.com/en-us/library/ff926074.aspx>