 **MINISTRY OF EDUCATION AND TRAINING**

**FPT UNIVERSITY**

Capstone Project Document

**DOCUMENT MANAGEMENT**

|  |  |
| --- | --- |
| **Nhóm số** | |
| **Group members** |  |
| **Supervisor** | Phan Trường Lâm |
| **Ext. Supervisor** | N/A |
| **Capstone Project code** |  |

-Ha Noi City, ***01/2016***-

*This page is intentionally left blank*

Table of Contents

[Table of Contents 3](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419667325)

[List of tables 4](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419667326)

[List of figures 5](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419667327)

[A. Introduction 6](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419667328)

[1. Project Information 6](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419667329)

[2. Introduction 6](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419667330)

[3. Current Situation 6](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419667331)

[4. Problem Definition 6](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419667332)

[5. Proposed Solution 6](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419667333)

[5.1 Feature functions 7](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419667334)

[5.2 Advantage and disadvantage 7](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419667335)

[6. Functional Requirements 7](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419667336)

[7. Role and Responsibility 8](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419667337)

List of tables

[Figure 1: Modified Waterfall development Model 8](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419917725)

List of figures

[Figure 1: Modified Waterfall development Model 8](file:///C:\Users\NguyenLeHung\Desktop\Report%20mẫu\Report-2.docx#_Toc419917725)

**B. Report No.2 Software Project Management Plan**

**1. Problem Definition**

#### 1.1 Name of this Capstone Project

* Capstone Project Name : Document Management
* Abbreviation **: DM**

#### 1.2 Problem Abstract

This system was created to manage and searching for document, resolutions and notification for staffs, students and everyone in the FU-HoaLac system. The system provides users with keywords for easy searching and looking over the document. The system also archives the test of the resolution and notice of the school to serve the searching document. Help users are looking for easy text and the system also allows each department to manage documents, updates and add users to their department.

#### 1.3 Project Overview

##### 1.3.1 Current Situation

* Now, there are plenty of systems to manage documents on the market. The specific systems management on a certain issue, such as health, business and so on … but still do not have a system to manage the university's document a complete and clear.

##### 1.3.2 The Proposed System

* The main objective of the system is to help users easily search for relevant documents. Managers can manage and update the relevant documents.
* For Admin:

+ Manage Room

+ Manage Manager

* For Manager:

+ Manage User

+ Manage Document

* For User:

+ Search Document

+ Download Document

+ Logout

* Quest

+ Log in

##### 1.3.3 Boundaries of the System

##### The system allows users to search documents based on keywords, users can also set up a keyword for the corresponding text to easily search others.

##### The administrator will add the manager into system and the manager will add employees in. Each department will be able to manage and update the relevant documents to serve the search easier.

##### 1.3.4 Development Environment

**1.3.4.1 Hardware requirements**

**For web development:**

|  |  |  |
| --- | --- | --- |
| Hardware | Minimum Requirements | Recommended |
| Internet Connection | 512Kbps | 8 Mbps |
| Operating System | Windows Vista, 7, 8 | Windows 7, 8 |
| Computer Processor | 1 GHz | Intel® Core(TM) i5 CPU , M 460 @ 2.53GHz |
| Computer Memory | 2GB of RAM | 4GB of RAM or more |

**1.3.4.2 Software requirements <Yêu cầu phần mềm>** Mô tả các yêu cầu phần cứng phù hợp cho ứng dụng của nhóm **Ví dụ:**

|  |  |
| --- | --- |
| Tools | Uses |
| SQL server 2008 | Used for creating and manage the database for system. |
| NetBean 8.0 | Used for implementing website and web service. |
| Github server | Used for storing source codes, documents. |
| Software Ideas Modeler 8 | Used for creating models and diagrams |

**2. Project organization**

#### 2.1 Software Process Model

This project is developed under waterfall model. We apply customized waterfall model to capable with current situation in our team. We choose this model because the following reasons:

* This is a project with clear requirement.



Figure 1: Modified Waterfall development Model

#### 2.2 Roles and responsibilities <Bảng phân chia vai trò>

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Full name** | **Role in Group** | **Responsibilities** |
| **1** | Phan Trường Lâm | Project manager | * Specify user requirement * Control the development process * Give out technique and business analysis support |
| **2** | Phan Nhat Anh | Team Leader,  BA, DEV, Tester | * Managing process * Designing database * Clarifying requirements * Prepare documents * GUI Design * Create test plan * Coding * Testing |
| **3** | Vuong Minh Phuc | DEV, Tester | * Coding * Testing * GUI Design |
| **4** | Nguyen Chi Khang | DEV, Tester | * Coding * Testing * Prepare documents |
| **5** | Duong Huy Hoang | DEV, Tester | * Coding * Testing * Prepare documents |

**Table 2: Roles and Responsibilities Details**

**2.3 Tools and Techniques**

|  |  |
| --- | --- |
| Tool / Technique | Name / version |
| Frontend | HTML, CSS, JavaScript, jQuery, Bootstrap |
| Backend | JavaEE, Spring, Hibernate |
| Web server | Apache Tomcat 7 |
| Development tool | NetBean 8.0 |
| DBMS | SQL Server 2008 |
| Modeling tool | Software Ideas Modeler |
| Document tool | Microsoft Word 2013 |

**3. Project Management Plan**

#### 3.1 Tasks:

**3.1.1 Project initiation:**

|  |  |
| --- | --- |
| **Description** | Perform initial activities of the project such as: idea, determine scope, time, sponsors, holding project kick – off meeting *Output:* Report 1- Introduction to project |
| **Deliverables** | Before 31/03/2016 |
| **Resources** | 4 people for 3 days |
| **Dependencies** **and constraints** | None |
| **Risks** | None |

**3.1.2 Project planning**:

|  |  |
| --- | --- |
| **Description** | Determine project goal, objectives, resources and tasks... *Output:* Report 2 - Software Project Management Plan |
| **Deliverables** | Before 31/03/2016 |
| **Resources** | 4 people for 6 days |
| **Dependencies** **and constraints** | None |
| **Risks** | None |

**3.1.3** **Create Software requirement specification**:

|  |  |
| --- | --- |
| **Description** | Analyze software requirements to create software requirements specification document *Output:* Report 3 - Software Requirement Specification document |
| **Deliverables** | Before 31/03/2016 |
| **Resources** | 4 people for 6 days |
| **Dependencies** **and constraints** | None |
| **Risks** | Mistakes or lack of requirements may happen because team members don’t have much experience. |

**3.1.4** **Create database**:

|  |  |
| --- | --- |
| **Description** | Create logical and physical database design. *Output:* Database Design and ERD |
| **Deliverables** | Before 31/03/2016 |
| **Resources** | 3 people for 3 days |
| **Dependencies** **and constraints** | Depend on the completion of SRS document |
| **Risks** | DB Design will be change many times in the future |

**3.1.5** **Software design description**:

|  |  |
| --- | --- |
| **Description** | Design system include: Architecture Design, Detail Design, Diagrams and Specification *Output:* Report 4 - Software Design Description Document |
| **Deliverables** | Before 31/03/2016 |
| **Resources** | 3 people for 8 days |
| **Dependencies** **and constraints** | Depend on the completion of SRS document |
| **Risks** | May choose inappropriate architecture and design patterns, Will cause the system be hard to maintain or high coding effort. |

**3.1.6** **Coding**:

|  |  |
| --- | --- |
| **Description** | Coding product base on SDD *Output:* Fully implemented system, source code |
| **Deliverables** | Before 31/03/2016 |
| **Resources** | 3 people for 25 days |
| **Dependencies** **and constraints** | Depend on the completion of SRS , SDD document |
| **Risks** | - Developer may have trouble of new technology - May lack of time to implement all requirements |

**3.1.7 System testing:**

|  |  |
| --- | --- |
| **Description** | Perform system test include creating test case and execute test *Output:* Software Testing Report |
| **Deliverables** | Before 31/03/2016 |
| **Resources** | 3 people for 6 days |
| **Dependencies** **and constraints** | Depend on the completion of Coding phase |
| **Risks** | Team members may don’t have much experience in testing. Testing viewpoint may be lack. |

**3.1.8** **Input initial data:**

|  |  |
| --- | --- |
| **Description** | Create sample data for system |
| **Deliverables** | Before 31/03/2016 |
| **Resources** | 3 people for 2 days |
| **Dependencies** **and constraints** | Depend on the completion Coding and Testing |
| **Risks** | None |

**3.1.9** **Deployment and closing:**

|  |  |
| --- | --- |
| **Description** | Deploy system to the Internet with website |
| **Deliverables** | Before 31/03/2016 |
| **Resources** | 3 people for 2 days |
| **Dependencies** **and constraints** | Coding and Testing are finished, data is inputted. |
| **Risks** | None |

#### 3.2 Task Sheet: Assignments and Timetable

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | **Name** | **Probability** | **Prevention** | **Correction** | **Impact** |
| R1 | Medium | Medium | After a meeting, one group member creates a meeting minute. Every participant should get a copy of these meeting minutes. Team members should not hesitate to ask and re‐ask questions if something is not clear. | When it becomes clear that miscommunication is causing problems, team members and the customer are joined in a meeting to clear things up. | High |
| R2 | Time shortage | High | PM should create more spare time and calculate plus 20% buffer time. | Lacking time is the fatal problem, can run project to failure. PM should analysis and have to change the plan on the next phase. | Very High |
| R3 | Design Errors | Medium | The design should be reviewed very critically. PM or team leader should be consulted frequently on his opinion about the feasibility and the correctness of certain design decisions. | When errors in the design are noticed, PM or team leader should be consulted to help correct the design errors as soon as possible. Also all the work, that depends on the faulty design, should be halted until the error is corrected. | High |
| R4 | Illness or absence of team members | Medium | Team members should warn their team leader or the PM timely before a planned period of absence. | By ensuring that knowledge is shared between team members, work can be taken over quickly by someone else if a person gets ill. | High |
| R5 | Requirement changed | Low | Carefully brainstorm system’s features among team members. Regularly hold meeting to define and discuss all features of systems. Design system carefully. Analyze all the possible cases to minimize the change. | Team meetings with PM to determine whether new feature should be implemented or not. Team leader create implementation plan for implemented features and send to team members. | High |
| R6 | Server crashed | Low | All products are stored in the project repository, which is backed up regularly. | When a product gets lost from its working store it is recovered from the most recent backup | High |

#### 3.3 All Meeting Minutes

See on Meeting Minutes folder comes with this document.

**4. Coding Convention**

#### 4.1 Coding Convention.

- We follow coding convention in this page below:

<http://www.oracle.com/technetwork/java/codeconventions-150003.pdf>