**MINISTRY OF EDUCATION**

**AND TRAINING**

**FPT UNIVERSITY**

Capstone Project Document

Distribution Management System in pharmaceutical

Report #2 – Software Management Plan

|  |  |
| --- | --- |
| Website of Law Firm Management System | |
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| Supervisor | Nguyễn Văn Sang |
| Capstone Project code | DMS |

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## Problem Definition

### Name of this Capstone Project

English: Distribution Management System in pharmaceutical

Vietnamese: Hệ thống quản lý phân phối ngành dược phẩm

Abbreviation: DMS

### Problem Abstract

The existing pharmaceutical supplier website only provides drug brands information. If drugstores want to order, they have to do it through a salesman. But the salesman are not always consistant to the supplier, they can change product prices or switch to another supplier which causes the supplier to loose customer.

The manager of drugstore’s orders, salesman and deliverymans are done separately, so the effort for an order to reach the drugstore is mutilpled. Since the salesman have to inform the staff, and the staff will use the program to create an order then prepare that order’s products. After the preparation is finished, the staff will have to calculate by themselves which orders go together for a more efficient route. This calculation can be incorrect and sometimes the staff just skips it when it seems too difficult which causes the supplier to loose money.

### Project Overview

#### The Current System

The existing pharmaceutical supplier website only provides Drug brand information

The management of drugstore’s orders is done by using a program which has no function other than managing Drug brand, Drugstore and orders

* Advantages:
  + User interface clearly and easy to use.
  + Quick response for user’s action.
  + There are more Drug’s information.
  + There are more different kind of Drugs.
  + Feedback function.
* Disadvantages:
  + There are no price with each product.
  + System does not support register new account.
  + Cannot search Drug with Textbox.
  + Paging limit minimum 75 elements, hard to view and scroll.

#### The Proposed System

The new system will have belows components:

* Salesman: Manage Drugstore, View Order, Create Order, Edit Discout, View history
* Staff: Manage Salesman, assign Drugstore to Salesman, Confirm Order, View Order, View history.
* Manager: View all report, View history.
* Administrator: Manage all account.
* Drug Store: Create Order, View history.

Advantages over the old system:

* More stable.
* Easy upgrade, manage and maintance
* Manage multiple data.
* Can be used for many types of Distributor.

#### Boundaries of the System

* The system is designed for all Pharmaceutical Distributor.
* The language of the system support Vietnamese.
* The system does not include Warehouse management.

#### Development Environment

#### Hardware requirements

#### For server

|  |  |  |
| --- | --- | --- |
| Windows | Minimum Requirements | Recommended |
| Internet Connection | Cable, Wi-Fi (4 Mbps) | Cable, Wi-Fi (8 Mbps) |
| Operating System | Window Server 2008 | Window Server 2008 |
| Computer Processor | Intel® Xeon ® 1.4GHz | Intel® Xeon ® Quad Core  (12M Cache, 2.50 GHz) |
| Computer Memory | 1GB RAM | 2GB or more |

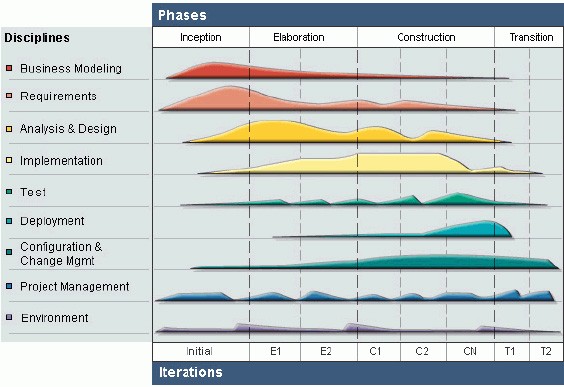
#### Software requirements

* Handle Products and sprints backlog: MS Excel 2013.
* Implement Website and service: Visual Studio 2013.
* Create and manage database for system: SQL Server 2008.
* Source control: Github.
* Create models and diagrams: Software Ideas Modeler.
* Communicate and meeting: Skype 7.0 and Google mail.
* System and platform development: Window 7.

## 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 2-1: 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

|  |  |  |  |
| --- | --- | --- | --- |
| # | Name | Role | Responsibilities |
| 1 | Nguyễn Văn Sang | Supervisor | Support business and solution  Tracking and review project |
| 2 | Trương Võ Thiên Vũ | Project Manager  SRS Analysis  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 interface.  - 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 | Tạ Đức Tùng | Member  SRS Analysis Leader  Developer  Tester | - Analyze business. Understand business related to project topic.  - Present and explain business information to other members.  - Create and review SRS, SAD and SDD documents.  - Writing report.  - Create test data for all functions. |
| 4 | Nguyễn Trần Hoàng Quý | Member  SRS Analysis  Developer  QA | - Coding function.  - Develop the test plan based on project plan and SRS, SDD documents.  - Execute test to ensure all functions fulfill requirements and make test report. |
| 5 | Nguyễn Trọng Việt | Member  Developer  SRS Analysis  Tester | - Develop a plan to draw and control architectural design.  - Coding function  - Execute test to ensure all functions fulfill requirements and make test report.  - Create test cases for the system, both in document and script.  - Support other team members. |

**Table 2-1: Roles and Responsibilities**

### Tools and Techniques

#### Tools

* Microsoft Visual Studio 2013: Integrated Development Environment (IDE)
* Microsoft SQL Server 2008: Database Management System (DBMS)
* Microsoft Office: Create documents and reports
* Software Ideas Modeler: Draw diagrams
* GitHub: Subversion repository for controlling source code
* Firefox, Chrome: Environment to use and testing project

#### Techniques

* Front-end technologies:
  + CSS3, Javascript, jQuery, AJAX, Google IPI, Bootstrap
* Back-end technologies:
  + Website: MVC5.NET
  + Framework: Entities Frame Work 6
* Webserver: localhost

## Schedule

**Project plan**

## 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>