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| |  |  |  | | --- | --- | --- | | **Logo_FPT_University_doc** | **MINISTRY OF EDUCATION AND TRAINING** | | | **FPT UNIVERSITY** | | |
| Capstone Project |
| Information System In Logistic Company  Software Project Management Plan |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | |  |  |  |  | | --- | --- | --- | --- | | **Group 6** | | | | | **Group Members** | Lê Anh Đảo |  | 60142 | | Nguyễn Bá Linh |  | 60153 | | Hồ Hữu Tài |  | 60267 | | Thân Văn Thành  Lê Quang Tú |  | 60277  60037 | | **Supervisor** | Lâm Hữu Khánh Phương | | | | **Capstone Project code** | HDMS | | | | |
| * Ho Chi Minh City, Sep / 2012 - |

# Table of Contents

[Table of Contents 3](#_Toc336515288)

[2.1 Problem Definition 4](#_Toc336515289)

[2.1.1. Name of this Capstone Project 4](#_Toc336515292)

[2.1.2. Problem Abstract 4](#_Toc336515293)

[2.1.3. Project Overview 4](#_Toc336515294)

[2.1.3.1. The Current System 4](#_Toc336515295)

[2.1.3.2. The Proposed System 4](#_Toc336515296)

[2.1.3.3. Boundaries of the System 4](#_Toc336515297)

[2.1.3.4. Development Environment 5](#_Toc336515298)

[2.2 Project organization 6](#_Toc336515299)

[2.2.1 Software Process Model 6](#_Toc336515300)

[2.2.2 Roles and Responsibilities 7](#_Toc336515301)

[2.2.3 Tools and Technologies 8](#_Toc336515302)

[2.3 Project Mangement Plan 9](#_Toc336515303)

[2.3.1 Tasks 9](#_Toc336515304)

[2.3.2 Task sheet 11](#_Toc336515305)

[2.3.3 Meeting Minutes 12](#_Toc336515306)

[2.4 Coding Convention 13](#_Toc336515307)

[2.4.1 Naming Convention 13](#_Toc336515308)

[2.4.2 Lengths 13](#_Toc336515309)

[2.4.3 Other Convention 13](#_Toc336515310)

# Problem Definition



## Name of this Capstone Project

Project Full name: **Information System In Logistic Company**

Project Code: **HDMS (Home Delivery Management System)**

## Problem Abstract

TicTac is a company providing Home Delivery service for online and offline shops. The business consists of many complex processes such as delivery booking, items tracking, task assigning, etc. To increase efficiency in work and compete with other service providers in the industry, the company needs a powerful information system that helps complete management tasks quickly and easily.

## Project Overview

### The Current System

Currently, TicTac is not using any information system. All the tasks are done manually using paper and common software like Microsoft Word and Microsoft Excel. Customers are placing orders using phone calls or email.

### The Proposed System

HDMS is developed as a web-based system. Below features are provided to support the management process:

* *Management*: Customers, Staff, Orders, and others are managed easily through the system.
* *Online Delivery Booking*: Customers can book deliveries online using TicTac’s website. They can also manage and track all the deliveries they have booked.
* *Collection and Delivery Planning*: The system will help managers at the company to create good plans for collecting and delivering items which are able to help increase efficiency and reduce cost.
* *Reporting (future feature)*: Daily, weekly, or any required type of report are created precisely and quickly by the system.

### Boundaries of the System

* The system is intended to use for TicTac Co. only.
* All the functions of the system are built based on the requirements from TicTac.
* The system will be used only for managing the tasks related to the delivery process in TicTac. It does not include general management functions like accounting, customer relationship, salary managing, etc.

### Development Environment

***Hardware Requirements:***

* Personal computers for developing with the minimum configuration: 2 GB of RAM, 40GB of hard disk, Core 2 Duo 2.0 GHz

***Software Requirements:***

* Operating system: Windows 7
* IDE: Visual Studio 2010 SP1
* Microsoft Office (Word, Excel)
* DBMS: SQL Server 2008 R2 Express
* Source Control: SVN
* Browser: Chrome/Firefox

# Project organization

## Software Development Process Model

Due to specific characteristics of a Capstone project, the model we use for developing this project is Waterfall model.



## Roles and Responsibilities

|  |  |  |
| --- | --- | --- |
| Full name | Role in Group | Responsibilities |
| Lâm Hữu Khánh Phương | Supervisor | * Tracking & managing progress * Advising Idea & solutions * Suggesting & supporting in technologies |
| Lê Anh Đảo | Team Leader, Developer, Business Analyst, Tester, QA | * Tracking & managing progress * Designing database * Creating coding framework * Analyzing requirements * Planning & scheduling * Coding * Testing * Writing documents & reports |
| Nguyễn Bá Linh | Developer, Business Analyst, Tester | * Analyzing requirements * Coding * Writing documents * Testing |
| Hồ Hữu Tài | Developer, Business Analyst, Tester | * Analyzing requirements * Coding * Writing documents * Testing |
| Thân Văn Thành | Developer, Business Analyst, Tester | * Analyzing requirements * Coding * Writing documents * Testing |
| Lê Quang Tú | Developer, Business Analyst, Tester | * Analyzing requirements * Coding * Writing documents * Testing |

Table 1 - Roles and Responsibilities

## Tools and Technologies

***Tools:***

* *Microsoft Visual Studio 2010*: Used to implement software modules.
* *Microsoft SQL server 2008 R2 Express*: Used as the database of the system.
* *Microsoft Excel*: For the team leader to manage tasks of the members and the progress of the project.
* *TortoiseSVN*: Control Source code of the whole project.
* *VisualSVN*: extension for using subversion (SVN) inside Visual Studio.
* *Google Cloud Connect*: Connect and synchronize the documents.
* *Assembla*: Used as SVN repository
* *Visual Paradigm*: Design database and draw use cases
* *Google Chrome, Firefox*: Used to test the system

**Technologies:**

* ASP.NET MVC 3
* LINQ
* HTML 5, CSS 3, AJAX, jQuery, Bootstrap
* Google Maps API

# Project Mangement Plan

## Tasks

|  |  |
| --- | --- |
| **Feasibility study** | |
| Description | General requirements analysis, technology & business process study |
| Deliverables | The feasibility report and decisions for the project |
| Resources Needed | 25 man-days |
| Dependencies and Constraints | N/A |
| Risks | The project or the chosen technology is not feasible. |
| **Documentation and review** | |
| Description | Create all the necessary documents for research and delivery |
| Deliverables | 1. Project Management Plan (PMP) 2. Software Requirements Specification (SRS) 3. Software Design Description (SDD) 4. Software Test Documentation (STD) 5. Software User’s Manual (SUM) |
| Resources Needed | FPT templates,  75 man-day |
| Dependencies and Constraints | Follow FPT templates |
| Risks | Not follow FPT templates, poor review leads to faults in later phases |
| **GUI design and implementation** | |
| Description | Design user interface |
| Deliverables | Prototype |
| Resources Needed | 25 man-days |
| Dependencies and Constraints | Web Application |
| Risks | The interface is not user-friendly and not effective |
| **Implementation** | |
| Description | Create the executable files |
| Deliverables | Usable software product |
| Resources Needed | Visual Studio 2010, .NET framework 4, Web browsers  200 man-days |
| Dependencies and Constraints | N/A |
| Risks | Not meet the deadline, or not all the functions can be implemented |
| **Release and deployment** | |
| Description | Release the complete application and deploy it on the server |
| Deliverables | HDMS installation file and all the related documents (SUM) |
| Resources Needed | Installation package  10 man-days |
| Dependencies and Constraints | Meet the user requirements |
| Risks | The program is not running properly in real environment  Cannot release before the deadline |
| **Quality control** | |
| Description | Testing application’s performance and usability |
| Deliverables | STD |
| Resources Needed | QA, testers (team member),members), FPT template test case  75 man-days |
| Dependencies and Constraints | Follow FPT template test case |
| Risks | The program performance bellow standard  Not user friendly  Bugs and leakages |
| **Human resource management** | |
| Description | Manage human resource, task assignments and member’s performances |
| Deliverables | Project Task List – Assignment Table sheet |
| Resources Needed | Project Task List |
| Dependencies and Constraints | N/A |
| Risks | Lack of planning and management skill  Communication problem  Decrease in team members during project implementation |

## Task sheet

|  |  |  |  |
| --- | --- | --- | --- |
| Task Name | Duration | Start | Finish |
| **Home Delivery Management System** | **75 days** | Mon 9/10/12 | **Fri 12/21/12** |
| **Initiating** | **1 day** | Mon 9/10/12 | Mon 9/10/12 |
| Project Kick-off meeting | 1 day | Mon 9/10/12 | Mon 9/10/12 |
| **Planning** | **4 days** | **Tue 9/11/12** | **Fri 9/14/12** |
| Prepare Project Introduction | 1 day | **Tue 9/11/12** | Tue 9/11/12 |
| Develop Software Project Management Plan | 2 days | **Wed 9/12/12** | Thu 9/13/12 |
| Review Project plan | 1 day | **Fri 9/14/12** | Fri 9/14/12 |
| **Executing** | **65 days** | **Mon 9/17/12** | **Fri 12/14/12** |
| **Analysis** | **4 days** | **Mon 9/17/12** | **Thu 9/20/12** |
| Create SRS | 4 days | Mon 9/17/12 | Thu 9/20/12 |
| Review SRS | 1 day | Fri 9/21/12 | Fri 9/21/12 |
| **Design** | **10 days** | Mon 9/24/12 | **Fri 10/5/12** |
| Architecture Design | 2 days | Mon 9/24/12 | Tue 9/25/12 |
| Database Design | 2 days | Wed 9/26/12 | Thu 9/27/12 |
| UI Design | 3 days | Fri 9/28/12 | Tue 10/2/12 |
| Create Software Detail Description | 2 days | Wed 10/3/12 | Thu 10/4/12 |
| Review DD | 1 day | Fri 10/5/12 | Fri 10/5/12 |
| **Implementation** | **35 days** | Mon 10/8/12 | **Fri 11/23/12** |
| Implement database | 2 days | Mon 10/8/12 | Tue 10/9/12 |
| coding (code and fix bug) | 33 days | Wed 10/10/12 | Fri 11/23/12 |
| **Testing** | **10 days** | **Mon 11/26/12** | **Fri 12/7/12** |
| Create software Test plan | 1 day | Mon 11/26/12 | Mon 11/26/12 |
| Review Test plan | 1 day | Tue 11/27/12 | Tue 11/27/12 |
| Create Software Test Document | 1 day | Wed 11/28/12 | Wed 11/28/12 |
| Execute IT | 3 days | Thu 11/29/12 | Mon 12/3/12 |
| Execute ST | 3 days | Tue 12/4/12 | Thu 12/6/12 |
| Review STD | 1 day | Fri 12/7/12 | Fri 12/7/12 |
| **Final release** | **5 days** | Thu 12/13/12 | **Wed 12/19/12** |
| Create Software Installation package | 2 days | Thu 12/13/12 | Fri 12/14/12 |
| Create User manual Guide | 2 days | Mon 12/17/12 | Tue 12/18/12 |
| Review User Manual Guide | 1 day | Wed 12/19/12 | Wed 12/19/12 |
| **Closing** | **6 days** | Thu 12/20/12 | **Thu 12/27/12** |
| Prepare project presentation | 5 days | Thu 12/20/12 | Wed 12/26/12 |
| Final Capstone project Presentation | 1 day | Thu 12/27/12 | Thu 12/27/12 |

# Coding Convention

## Naming Convention

* Private Fields: underscore followed by lowerCamelCase.
* Non-private Fields and properties: UpperCamelCase.
* Local variables: lowerCamelCase.
* Do not use consecutive underscores in name.
* Do not use Hungarian style.

## Lengths

* Public name should not be longer than 32 characters or 7 words.
* Methods should contain no more than 70 lines of code (if it is, it must be divided into methods).
* Methods should contain no more than 5 levels of indentation (if it is, it must be divided into methods).
* A line of code should contain no more than 80 characters.