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| **E:\My Documents\Desktop\Logo_FPT_University_doc.jpg** | **MINISTRY OF EDUCATION AND TRAINING** |

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| **FPT UNIVERSITY** |
| Software Project Management Plan |
| Teacher Left Hand |
|  |
| |  |  | | --- | --- | | **TLH Team** | | | **Group Members** | Lê Phương Giang – 60046 – GiangLP60046  Nguyễn Hồ Hải – 00268 – HaiNH00268  Nguyễn Quốc Hùng – 00267 – HungNQ00267  Tô Hồng Quân – 60061 – QuanTH60061 | | **Supervisor** | Lâm Hữu Khánh Phương | | **Ext Supervisor** |  | | **Capstone Project code** | TLH | |
|  |

Ho Chi Minh, January 13th 2012

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# Problem Definition

## Name of this Capstone Project

The official project name is “The Teaching Knowledge and Teaching Method Management Software For Primary School Teacher”. The product is named Teacher Left Hand. However, the product name may be varied when being deployed.

## Problem Abstract

Knowledge management system (KMS), along with content/course management system (CMS) and others information system (IS), have proved their strength to solve the critical problems involving information which will made up data, then knowledge.

The problem that primary school teachers face is knowledge management. It’s as good as a car manufacturer deal with their breakthroughs to improve product. They use KMS to manage their approach efficiently. So far, primary school teacher need a compact KMS to improve their work with knowledge.

To help the primary school teacher reduce knowledge management time, increase the quality of education, we need to provide them a strong information technology tools. By maximizing the teacher’s work efficiency and production the software will meet the teacher’s needs. This tool, combined with recent approach in education innovation is supported to be the solution to these problems.

The product in this version is supported to have the following characteristics:

* A desktop application, working offline, one instance per user.
* Having a good initial database for every first 10 lessons of 5 selected subjects of 5 primary school class levels.
* Can be used by user with limited computer skills.
* Having a good infrastructure design for migrating to Web environment.
* Can be commercialized.

## Project Overview

### The current system

There is no current system. The product is building from scratch as a new idea.

### The Proposed System

This project is registered and implemented as the capstone project for the team members to fulfill the requirements from FPT University studying program.

The project is launched to produce software maximizing the teacher’s productivity.

The main product of this project is a desktop application with these following functions:

* Manage teaching resources and teaching methods
* Support users to create a teaching plan with friendly User-Interface.
* Export the lesson plan to different file types.
* Collect experience notes created to do other researches.

The application will be first developed for a single offline user per installation.

### Boundaries of the System

The system under development of this Capstone Project will include:

* A complete windows application
* All the software documents involved

### Development Environment

#### Hardware Requirement

4 personal computers for developing with the minimum configuration: 2 Gb of RAM, 80 Gb of hard disk, Core 2 Duo 2.0 Ghz.

#### Software Requirements

All required software, in-house tools or tools to be developed in project:

* Window7 32bit
* Visual Studio 2010, VisualSVN
* Framework: .NET Framework 4.0
* SQL Server 2008
* Microsoft Office 2010 (+MS Project, Visio 2010), Google Cloud Connect
* TortoiseSVN, server Google Code, Visual
* NUnit, Beyond Compare
* Microsoft Expression Blend 4

# Project Organization

## Software Process Model

The process being applied for this project is waterfall model.



Figure - Software Process Model

All phases of waterfall model are included in the scope of this project except for maintenance.

## Roles and Responsibilities



Figure - Organizational chart

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **No.** | **Name** | **Position** | **Start date** | **End date** | **Working time** |
| Management | | | | | |
| 1 | PhuongLHK | Supervisor | 02/01/2012 | 28/04/2012 | 4 months |
| 2 | GiangLP | PM | 02/01/2012 | 28/04/2012 | 4 months |
| Team members | |  | | | |
| 3 | GiangLP | TL | 02/01/2012 | 28/04/2012 | 4 months |
| 4 | HungNQ | Dev | 02/01/2012 | 28/04/2012 | 4 months |
| 5 | QuanTH | Dev | 02/01/2012 | 28/04/2012 | 4 months |
| 6 | HaiNH | Dev | 02/01/2012 | 28/04/2012 | 4 months |

## Tools and Techniques

* Tools:
  + Visual Studio 2010
  + SQL Server 2008
  + TortoiseSVN
  + Server Google Code
  + NUnit
  + Beyond Compare
  + Microsoft Expression Blend 4
* Front-end technologies: C#.Net, WPF.

# Project Management Plan

## Tasks

### Create Software Requirement Specification

|  |  |
| --- | --- |
| Description | Create software requirement specification |
| Deliverables | Software Requirement Specification (SRS) document |
| Resources Needed | 1 man month  4 people  From 10/1/2012 – 2/2/2012 |
| Dependencies and Constraints | None |
| Risks | There are no actual users and all requirements come from team members so conflicts may happen regularly. |

### Create Software Design Description

|  |  |
| --- | --- |
| Description | Create Software Design Description |
| Risks | Architecture design, database design and detailed design with diagrams and design specification |

|  |  |
| --- | --- |
| Deliverables | Software Design Description (SDD) document |
| Resources Needed | 1.2 man month  4 people  From 3/2/2012 – 13/2/2012 |
| Dependencies and Constraints | Depend on the completion of the SRS |
| Risks | * Choose inappropriate design pattern and architect which leads to rework for software design and high coding effort. * SRS may not be completed or detailed enough in order to capture the software business logic. Therefore, the database design may be inappropriate and need changes in the future. |

### Implementation

|  |  |
| --- | --- |
| Description | Implement the application based on all requirement and design. |
| Deliverables | Executable program and source code |
| Resources Needed | 7.3 man months  4 people  From 6/2/2012 – 18/3/2012 |
| Dependencies and Constraints | Depend on the completion of SRS, SDD and database design. |
| Risks | * Time may not be enough to implement all requirements. * Team members may have difficulties adapting to new technologies. * Unit test completion depends on team members’ skills and may require more effort in later testing phase. |

### Verification

|  |  |
| --- | --- |
| Description | Test to ensure the system meets user requirements |
| Output | Test reports |
| Deliverables | Software Test Document |
| Resources Needed | 1.5 man months  4 people  From 9/2/2012 – 16/3/2012 |
| Dependencies and Constraints | The progress of implementation phase |
| Risks | * lack of professional tester in team * Developers also work as testers, this could lead to compromise and leaked. |

## Task Sheet: Assignments and Timetable

Refer to TLH\_project plan\_v0.1.mpp

## All Meeting Minutes



### Meeting 03/1/2012

**Meeting Minutes**

|  |  |  |  |
| --- | --- | --- | --- |
| **Subject** | Requirement Brainstorming | **Date** | 03/01/2011 |
| **Facilitator** | Innovation Building | **Time** | 7:45 – 8:30 |
| **Location** | Room 211 | **Scribe** | GiangLP |
| **Attendees** | PhuongLHK (Supervisor), GiangLP, HungNQ, QuanTH | | |
| **Absent** | HaiNH | | |

| **Key Points Discussed** | | |
| --- | --- | --- |
| No. | Topic | Highlights |
| 1 | Basic system functions | What functions the system should have |
| 2 | Basic data structure | How the teaching plan should be structured |
| 3 | Basic GUI | How the application should be organized for easy usage and implementation |

| **Action Plan** | | | |
| --- | --- | --- | --- |
| No. | Action Item(s) | Owner | Target Date |
| 1 | Writing Function List | All members | 12/1 |
| 2 | Write Report 1 – Project Introduction | All members | 4/1 |
| 3 | Make MS project plan | GiangLP | 5/1 |



### Meeting 05/1/2012

**Meeting Minutes**

|  |  |  |  |
| --- | --- | --- | --- |
| **Subject** | Review project introduction and project plan | **Date** | 05/01/2011 |
| **Facilitator** | Innovation Building | **Time** | 7:45 – 8:30 |
| **Location** | Room 211 | **Scribe** | HaiNH |
| **Attendees** | PhuongLHK (Supervisor), GiangLP, HungNQ, QuanTH, HaiNH | | |
| **Absent** |  | | |

| **Key Points Discussed** | | |
| --- | --- | --- |
| No. | Topic | Highlights |
| 1 | Review Project Introduction |  |
| 2 | Review project plan |  |
| 3 | Analyze function list | Analyze all functions listed and discuss briefly how it works |
| 4 | Assign writing use case | Assign to all members writing use case base on function list |
| 5 | Briefly design database |  |
| 6 | Sketch GUI | Draft main windows of the application |

| **Action Plan** | | | |
| --- | --- | --- | --- |
| No. | Action Item(s) | Owner | Target Date |
| 1 | Submit Project introduction | All team members | 10/1 |
| 2 | Make Project Plan | GiangLP | 31/1 |
| 3 | Write SRS Use case | All team members | 10/1 |
| 4 | Design database conceptually | All team members | 10/1 |
| 5 | Design GUI | HungNQ, HaiNH | 10/1 |

### Meeting 10/1/2011

**Meeting Minutes**

|  |  |  |  |
| --- | --- | --- | --- |
| **Subject** | GUI Review | **Date** | 10/01/2011 |
| **Facilitator** | Innovation Building | **Time** | 7:45 – 8:30 |
| **Location** | Room 211 | **Scribe** | QuanTH |
| **Attendees** | PhuongLHK (Supervisor), GiangLP, HungNQ, QuanTH, HaiNH | | |
| **Absent** |  | | |

| **Key Points Discussed** | | |
| --- | --- | --- |
| No. | Topic | Highlights |
| 1 | Review GUI | Not finished. Pending till all requirements are finalized |
| 2 | Prepare Report 2 : project plan | Assign task to team members based on template Fsoft. |

| **Action Plan** | | | |
| --- | --- | --- | --- |
| No. | Action Item(s) | Owner | Target Date |
| 1 | Clarify requirement | All team members | 31/1 |
| 2 | Redesign GUI | All team members | 12/1 |

### Meeting 12/1/2011

**Meeting Minutes**

|  |  |  |  |
| --- | --- | --- | --- |
| **Subject** | Requirement Review | **Date** | 12/01/2011 |
| **Facilitator** | Innovation Building | **Time** | 7:45 – 8:30 |
| **Location** | Room 211 | **Scribe** | HungNQ |
| **Attendees** | PhuongLHK (Supervisor), GiangLP, HungNQ, HaiNH | | |
| **Absent** | QuanTH | | |

| **Key Points Discussed** | | |
| --- | --- | --- |
| No. | Topic | Highlights |
| 1 | Review Draft of SRS | There are still vague requirements. |
| 2 | Apply new template to project documents | Assign task to team members to move from old to new templates |
| 3 | Requirement discussion | Discuss and remove any unclearness |

| **Action Plan** | | | |
| --- | --- | --- | --- |
| No. | Action Item(s) | Owner | Target Date |
| 1 | Apply Project plan’s new template | GiangLP | 31/1 |
| 2 | Apply SRS’s new template | All team members | 31/1 |

# Coding Convention

This part requires or recommends certain practices for developing programs in the C# language. The objective of this coding standard is to have some positive effects:

* Avoidance of errors/bugs, especially the hard-to-find ones
* Maintainability, by promoting some proven design principles
* Maintainability, by requiring or recommending a certain unity of style
* Performance, by dissuading wasteful practices

We will use the coding convention for C# of Microsoft

# Reference

* Microsoft C# Coding Convention from <http://msdn.microsoft.com/en-us/library/ff926074.aspx>
* Project Plan - TLH\_project plan\_v0.1.mpp