**MINISTRY OF EDUCATION AND TRAINING**

**FPT UNIVERSITY**

Capstone Project Document

Recomendation system

|  |  |
| --- | --- |
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| **Capstone Project code** | RCS-Website |

-Ho Chi Minh City, 05/2014-

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# Definitions, Acronyms, and Abbreviations

# Report No.2 Software Project Management Plan

## Problem Definition

### Name of this Capstone Project

English: Building a website for recommentdation system.

Vietnamese: Xây dựng trang web cho hệ thống gợi ý.

Abbreviation: RCS-Website

### Problem Abstract

Today, in the internet have many website about e-commert, advertising...Admin want to know, what them user exactly want. And from behavior of user, we develop a website, help they give them user product or somthing user may be need. When admin use this system, they can sell somthing effective.

### Project Overview

#### The Current System

Don’t have any website allow admin use many algorithm to suggest.

\* Advantages: Provide a useful system for those who are using the ecomert website.

\*Disadvantages:

+Stand alone.

#### The Proposed System

Our website focuses in the suggestion for admin stuff they need to provide for their users.

Admin provide infomation they need to analysic and import to our website. Our website will use many algorithm, after give them output they need.

The Website has two main users who interact with, includes:

* **User of website:** Import data.
* **Admin of website:** Login. Manage database.

#### Boundaries of the System

* The system is intended for for admin stuff they need to provide for their users.
* The system is intended for online functions, give suggest.
* The language of the system is English
* The complete product includes:

+ The website, for admin, user to interactive with the system.

* + All the process involved document.

#### Development Environment

##### Hardware requirements

**For server**

|  |  |  |
| --- | --- | --- |
| Windows | Minimum Requirements | Recommended |
| Internet Connection | 4Mbps | 8 Mbps |
| Operating System | Window Server 2008 | Window Server 2012 |
| Computer Processor | Intel® Core 2 Duo | Intel® Core(TM) i5 CPU , M 460 @ 2.53GHz |
| Computer Memory | 1GB RAM | 3GB or more |

Table 1: Hardware Requirement for Server

**For Web User**

|  |  |  |
| --- | --- | --- |
| Web | Minimum Requirements | Recommended |
| Internet Connection | 2Mbps | 4Mbps |
| Web Browser | Chrome 20 | Chrome 31 |

Table 2: Hardware Requirement for Web User

##### Software requirements

* Microsoft Windows 7 Service Pack 1 and platform for development.
* SQL Server 2008 R2
* StarUML 5.0 and Microsoft Visio: used to create models and diagrams
* Skype: used for communication and meeting
* Visual Studio 2012: for backend system.
* Gibhub & TortoiseSVN: used for source control.

## Project organization

### Software Process Model

With the schedule of weekly reports for every stage, the software will be developed by using waterfall model which is very simple and require minimal resource for implementation. With waterfall model, developing process will include six main phases:

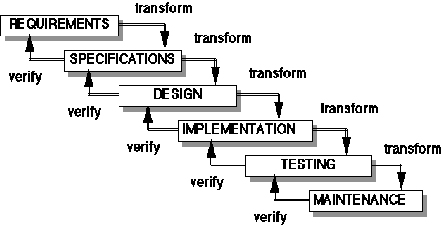


Figure 1 - Waterfall model

* **Requirement analysis and software definition**: The first phase is also the most important phase of the process which may cause great effect to other phases. This phase includes gathering as much as possible requirements from customer, or other information source like World Wide Web, and producing a most detail and accurate software definition.
* **System design**: This phase is fundamental for implementation phase. Based on customer’s requirements to create logical modules, and definite their inter relations. Using algorithm and diagram to describe implementation of those modules.
* **Implementation**: This phase consists of actually constructing the product as per the design specification(s) developed in the previous step. Typically, this step is performed by a development team consisting of programmers, interface designers and other specialists, using tools such as compilers, debuggers, interpreters and media editors.
* **Testing:**
  + **System implementation and Unit testing**: Developing software modules follow detail designs, and doing unit testing for each module.
  + **Integration and System testing**: Testing output, performance in modules integrating process, and retests all functions of whole system.
  + **User acceptance testing**: A proper execution of all the preceding stages ensures an application as per the provided requirements and most importantly, it ensures a satisfied client.
* **System deployment and maintenance**: After testing completely, the software is handle over client, developing team will respond for maintenance of the system.

### Roles and responsibilities

|  |  |  |  |
| --- | --- | --- | --- |
| **No** | **Full name** | **Role in Group** | **Responsibilities** |
| **1** | Nguyễn Trọng Tài | Project manager | * Specify user requirement * Control the development process * Give out technique and business analysis support |
| **2** | Bùi Tiến Tuân | Team Leader, BA, DEV, Tester | * Managing process * Assign task for team member * Designing database * Clarifying requirements * Prepare documents * GUI Design * Create test plan * Coding * Testing |
| **3** | Trần Lê Tuấn | Team Member, BA, DEV, Tester | * Designing database * Clarifying requirements * Prepare documents * GUI Design * Create test plan * Coding * Testing |
| **4** | Trương Quang Bảo | Team Member, BA, DEV, Tester | * Designing database * Clarifying requirements * Prepare documents * GUI Design * Create test plan * Coding * Testing |
| **5** | Lê Minh Bảo | Team Member, BA, DEV, Tester | * Designing database * Clarifying requirements * Prepare documents * GUI Design * Create test plan * Coding * Testing |

Table 3: Roles and Responsibility Details

### Tools and Techniques

- Front-end technologies: HTML5, CSS3, JavaScript, jQuery, AJAX.

- Back-end: Website .NET MVC4

- Database Management System: SQL Server 2008 R2

## Project Management Plan

### Task

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **#** | **Task** | **Description** | **Output** | **Deliverables** | **Resource Needed** | **Dependencies and Constraints** | **Risk** |
| 1 | Create Software Requirements Specification | Create software requirements specification (SRS) | SRS document | SRS document before 27/05/2014 | 4 people for 4 days |  | Lack of experience when getting requirement. |
| 2 | Design Database | Create conceptual, logical and physical database design | Database Design and Database script | Design Database before 08/06/2014 | 3 person for 3 days | Depends on the completion of SRS | SRS may not be detailed enough to cover the business rules, causing the database design to be inappropriate or to be changed based on customers’ requirements. |
| 3 | Create Software Design Description (SDD) | Design the system in an OOP manner | Architecture design, detailed design, diagrams and design specification | SDD before 21/06/2014 | 4 people for 4 days | Depends on the completion of SRS | Risks may include choosing inappropriate architecture and design patterns, causing the system hard to maintain, or wasting coding efforts. |
| 4 | Layout Design | Create the main GUI for layout, and create global styles that will be applied to the GUI | HTML layout and CSS files | Complete before 21/06/2013 | 2 person for 1 week |  | Lack of professional designers in team. |
| 5 | Create Coding | Map the architecture design into source code, create the project solution files and common classes, and implement common functions. | .Net MVC4 project and solution file contain coding |  | 1 person for 3 days | Dependent on Architecture design and SRS |  |
| 6 | Coding | Implement the system based on the requirements. | Source code of the project, unit test reports | Executable programs and source code before 26/07/2014 | 4 people for 5 weeks | Depends on the completion of SRS,SDD, Database design, Coding framework | Unit test may not be performed thoroughly, causing spending many efforts in system test phase. |
| 7 | Test Plan | Make a plan for testing | Test plan document | Test plan before 02/08/2014 |  |  |  |
| 8 | System Test | Perform system test for the system. | System test report | Software Test Documentation before 02/08/2014 | 4 people for 4 days | Coding is finished | Lack of professional testers in team. Developers are also responsible for system testing, this may lead to compromise. |
| 9 | User manual | Create User manual document | Report 6 | Report 6 before 25/08/2014 | 4 people for 1 days |  |  |
| 10 | Input Initial Data | Collect and input initial data for the system before release. | Initial data |  | 4 people for 3 days | Coding and system test are finished |  |
| 11 | Deployment | Deploy the system on server. | Running website with domain and hosting | Full Project | 2 people for 3 days | Coding and system test are finished, initial data is inputted | The owner host lacks of support in some components such as database engine. |

Table 4: Task

### Task Sheet: Assignments and Timetable

### All Meeting Minutes

Refer to Meeting Minutes folder.

## Coding Convention

C#: Using to develop website.

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>