|  |
| --- |
|  |
| Capstone Project Document |

**CTC**

Report #1 – Project Plan

|  |  |  |
| --- | --- | --- |
| **CTC** | | |
| **Group Members** | Lê Văn Dương | SE03220 |
| Trịnh Đình Quyết | SE03377 |
| Đặng Lê Tuấn | SE03267 |
| Vũ Văn Quyết | SE03297 |
| Lê Gia Hoàng | SE03108 |
| **Supervisor** | Mr. Nguyễn Văn Sang | |
| **Project code** | CTC | |

**- Hanoi, 09/2016 -**

# SIGNATURE PAGE

AUTHOR: Trịnh Đình Quyết 19/02/2017

Team member

REVIEWERS: Lê Văn Dương 19/02/2017

Project Manager

APPROVAL: Nguyễn Văn Sang --/--/2017

Supervisor

Record of change

\*A - Added M - Modified D – Deleted

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Effective Date | Changed Item | A,M,D | Change Description | Reason for Change | Rev. Number |
| 14/Sep/2016 | Create Project Plan | A | First version | Create Project Plan | 1.0 |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

TABLE CONTENTS

[SIGNATURE PAGE 1](#_Toc430709025)

[1 Introduction 4](#_Toc430709026)

[1.1 Purpose 4](#_Toc430709027)

[1.2 Definitions and Acronyms 4](#_Toc430709028)

[2 PROJECT OVERVIEW 5](#_Toc430709029)

[2.1 Project Description 5](#_Toc430709030)

[2.2 Scope and Purpose 5](#_Toc430709031)

[2.2.1 Purpose of Project 5](#_Toc430709032)

[2.2.2 Scope of Project 5](#_Toc430709033)

[2.2.3 The functions of Project 5](#_Toc430709034)

[2.3 Assumptions and Constraints 7](#_Toc430709035)

[2.4 Project Objectives 8](#_Toc430709036)

[2.4.1 Standard Objectives 8](#_Toc430709037)

[2.4.2 Specific Objectives 8](#_Toc430709038)

[2.5 Critical Dependencies 9](#_Toc430709039)

[2.6 Project Risk 9](#_Toc430709040)

[3 PROJECT DEVELOPMENT APPROACH 10](#_Toc430709041)

[3.1 Project Process 10](#_Toc430709042)

[3.1.1 FPT Software Process Model 10](#_Toc430709043)

[3.1.2 Project Life Cycle 11](#_Toc430709044)

[3.2 Requirement Change Management 12](#_Toc430709045)

[3.3 Quality Management 12](#_Toc430709046)

[3.3.1 Defect Prevention Strategy 12](#_Toc430709047)

[3.3.2 Review Strategy 13](#_Toc430709048)

[3.3.3 Unit Testing Strategy 13](#_Toc430709049)

[3.3.4 Integration Testing Strategy 14](#_Toc430709050)

[3.3.5 System Testing Strategy 14](#_Toc430709051)

[3.3.6 Estimates of Defects to be detected 14](#_Toc430709052)

[3.3.7 Measurements Program 15](#_Toc430709053)

[4 ESTIMATION 15](#_Toc430709054)

[4.1 Size 15](#_Toc430709055)

[4.2 Effort 15](#_Toc430709056)

[4.3 Schedule 15](#_Toc430709057)

[4.3.1 Project Milestone & Deliverables 15](#_Toc430709058)

[4.3.2 Activity Schedule 18](#_Toc430709059)

[4.4 Resource 19](#_Toc430709060)

[4.5 Infrastructure 19](#_Toc430709061)

[4.6 Training Plan 20](#_Toc430709062)

[4.7 Finance 20](#_Toc430709063)

[5 PROJECT ORGANIZATION 21](#_Toc430709064)

[5.1 Organization Structure 21](#_Toc430709065)

[5.2 Project Team 21](#_Toc430709066)

[5.3 External Interfaces 23](#_Toc430709067)

[5.3.1 FPT Software Interfaces 24](#_Toc430709068)

[5.3.2 FPT University’s Interfaces 24](#_Toc430709069)

[6 COMMUNICATION & REPORTING 25](#_Toc430709070)

[7 CONFIGURATION MANAGEMENT 27](#_Toc430709071)

# Introduction

## Purpose

This part is the project management plan of Carrier Trading Center (CTC) Project – our Capstone Project  
in FPT University. It is included the project overview, project organization, tools and  
infrastructures, schedule of this project.

## Definitions and Acronyms

|  |  |  |
| --- | --- | --- |
| Acronym | Definition | Note |
| BA | Business Analyst |  |
| BU | Business Unit |  |
| CC | Infrastructure Configuration Controller |  |
| CM | Configuration Management |  |
| CTC | Carrier Trading Center |  |
| ORG | Organization |  |
| DEV | Developer |  |
| PIC | Person in charge |  |
| PM | Project Manager |  |
| PTL | Project Technical Leader |  |
| QA | Quality Assurance Officer |  |
| SRS | Software Requirement Specification |  |
| TC | Test Case |  |
| PCB | Process Capability Baseline |  |

1. Definitions and acronyms

# PROJECT OVERVIEW

## Project Description

|  |  |  |  |
| --- | --- | --- | --- |
| Project Code | CTC | Contract Type | None |
| Customer | Vietnamese | 2nd Customer | None |
| Project Level | Group | Project Rank | None |
| Application Type | Website | Project Manager | Lê Văn Dương |
| Project Category | Development | Business Domain | E-commerce |

1. Project Description

## Scope and Purpose

### Purpose of Project

Our software which supports driver participates in an auction to transport cargo. Someone who interested in carriage will be served with the cheapest price as possible and drivers will not return on the empty trucks. Our software is a transport trading floor on internet. The owner of goods can post their cargo, ceiling price,.…on the trading floor and the drivers or transportation company can joint in the bidding. This is beneficial for both sides. We hope our software not only improve the economic efficiency but also the social life.

### Scope of Project

The scope of this project contains: Requirement Analysis, Design, Coding and Testing (Unit Test, Integration Test, and System Test).

#### The functions of Project

These are the functions of CTC’s project:

#### Client User Module.

* **Register**: Goods owner and carrier can register an account and login to use some features of CTC.
* **Login/Logout**: Goods owner and carrier login/logout an account to use or exit system CTC.
* **Create a new exchange**: Goods owner can create a new exchange.
* **Auction** : Carrier can auction some goods to transport.
* **Search**: Goods owner and carrier can search auction with types of goods, where to go, destination, receiving time, arrival time, transaction status. System will display all of project relate to keywords.
* **Cancel** : Carrier and goods owner can cancel auction.
* **Profile:**
  + **Change password**: Carrier and goods owner can change password to keep security.
  + **Update profile**: Carrier and goods owner can change or update information.
* **Send report**: Carrier and goods owner can send report to admin.

#### Admin Module

* **Login/Logout**: Admin login/logout an account to use or exit system CTC.
* **Manage goods owner and carrier:**
  + **Search user: Search goods owner and carrier:** Admin can search goods owner and carrier with account name, name of goods owner and carrier, phone number, email address. System will display all of project relate to keywords.
  + **Inactive/active goods owner and carrier**: admin can set goods owner and carrier account to inactive or active.
  + **Delete goods owner and carrier** : admin can delete a goods owner and carrier.
* **Manage auction:** 
  + **Search auction**: Admin can search auction with types of goods, where to go, destination, receiving time, arrival time, transaction status. System will display all of project relate to keywords
* **Send report:** Admin can send report to goods owner and carrier.

## Assumptions and Constraints

|  |  |  |
| --- | --- | --- |
| No | Description | Note |
| Assumptions | | |
| 1 | Customer reviewers will get seven days to approve a milestone document. If no comments are received within this time period, it will be considered as approved. | External Interfaces |
| Constraints | | |
| 1 | This project must be completed and delivered before 12/04/2017 | Schedule |
| 2 | In doing project processing, PM must submit report (include 6 reports) on certain date. | Schedule |
| 3 | Software Requirement Specification Document and Project Plan must be completedwithin10dayssince06/01/2017  **Deadline**: 16/02/2017 | Schedule |
| 4 | Design Document (include Architecture Design, Screen Design, Database Design) must be completed within 17 days since 01/02/2017  **Deadline**:06/02/2017 | Schedule |
| 5 | Completed coding activity and have unit test result within 18 days since 06/03/2017  **Deadline**: 20/02/2017 | Schedule |
| 6 | Integration TestPlan (include test plan and test case…) must be completed within20dayssince01/03/2017  **Deadline**: 28/02/2017 | Schedule |
| 8 | Deliver report about User manual, software package and installation guide on 2 days since 6/03/2017  **Deadline**: 20/03/2017 | Schedule |
| 9 | Complete all of document and application before finishingtheprojecton12/04/2017 | Schedule |
| 10 | Project contains 6 members | Resource |

1. Project Description

## Project Objectives

### Standard Objectives

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Metrics | Unit | Committed | Re-committed | Note |
| Start Date |  | 05-09-2017 |  |  |
| End Date |  | 12-04-2018 |  |  |
| Duration | Day | 75 |  |  |
| Team Size | Person | 5 |  |  |
| Billable Effort | Person-day | 375 |  |  |
| Calendar effort | Person-day | 375 |  |  |
| Effort Usage | % | 100 |  |  |

1. Standard Objectives 1

|  |  |  |
| --- | --- | --- |
| Metrics | Unit | Basic for setting Goals |
| Average |
| Customer Satisfaction | Point | 9.5 |
| Leakage | Wdef/mm | 5 |
| Effort Efficiency | % | 95 |
| Timeliness | % | 100 |

1. Standard Objectives 2

### Specific Objectives

|  |  |  |  |
| --- | --- | --- | --- |
| Metrics | Unit | Basic for setting Goals | |
| Plan | Actual |
| Training technology: JSF, spring framework, Hibernate | Person-day | 15 | 15 |
| Execute group review | Person-day | 8 | 5 |
| Training requirements, process before coding | Person-day | 8 | 5 |

1. Specific Objectives

## Critical Dependencies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Dependency | Expected delivery date | | Note |
| 1 | This project must be completed and delivered to FPT University. | 12/04/2017 |  | |
| 2 | Project Plan and SRS must be completed and delivered to Supervisor. | 09/01/2017 |  | |
| 3 | User manual, Software Package and Installation Guide must be completed and delivered to Supervisor and FPT University. | 17/04/2017 |  | |

1. Critical Dependencies

## Project Risk

PM identifies risks in the Risk Management Plan. The document is updated to trigger each milestone, each event also. The document is updated weekly by the PM, Risk Management Plan will be notified to all of the stakeholders affected. Status of risk is reported to supervisor at Project Milestones Report.

Reference to WS\_Risk Management Plan\_v1.0\_EN.xlsx

# PROJECT DEVELOPMENT APPROACH

## Project Process

Process of this project is performed follow to Software Development Process of FPT Software.

### FPT Software Process Model



Figure 1‑: FPT Software process model

The software lifecycle is broken into *cycles*, each cycle working on a new generation of the product. The FPT Software process divides one development cycle in six consecutive *phases*:

1. Initiation phase
2. Definition phase
3. Solution phase
4. Construction phase
5. Transition
6. Termination

### Project Life Cycle

Basing on FPT Software process and real-world project, we decided to divide the project into 4 phases: Initiation, Solution, Construction, and Termination:

* **Initiation Phase:** This is the explanatory phase of the project. Project objective and description is described at this stage. The purpose of this phase is to collect and understand business requirements, detail the project plan and agree upon a high level statement of work. Our primary objectives are complete project identification and project plan. After these are completed, the project is checked against the following criteria:
  + Identify business functions of the system
  + Determining the scope, conditions and limitations of the project
  + List the main functions of the system
  + List one or more suitable architecture for the system
  + Identify project risks
  + Complete Report #1, and Report #2
* **Solution Phase**: In this phase, the architecture of the system is designed. The goal is to translate requirements and specification into a technical solution to produce Technical Design.
  + Our *primary objectives* are completeRequirement Specification, Architecture Design and Database Design.
  + Finally, the plan must be provided (including estimates of cost and time) for the construction phase. The plan must ensure proper and accurate based on experience.
  + Complete Report #3 and Report #4
* **Construction Phase**: This is the longest phase of a project life cycle.
  + In this phase, all functions of the system will be installed. The installation will be divided into small stages, each stage of the installation a few functions. The results of each phase will be the release of the module function can be executed.
  + Construction and improvement of products until the final product is ready to deliver to the user. During this phase, all the components and other features of the application is developed and integrated into the product.
  + This phase emphasizes the resource management and control operations to optimize cost, time and quality.
  + Complete software packages and Report #5
* **Termination Phase**: This is the final phase in the life cycle of a project.
  + Their products will be deployed to the client. The feedback received during the transfer process will be recorded and put on the new functional requirements or functionality enhancements in the next version of the product.
  + Phase transfer switch also includes the training system and the new system for the user.
  + Complete software packages and Report #6

## Requirement Change Management

|  |  |
| --- | --- |
| Who logs the change request? | Any team members |
| Who reviews the change request? | PM or who is PM assign |
| Who approves the change request? | PM by default. PTL if:   * Changes to project scope * Changes in delivery plan of project deliverables * Changes to assignment for key roles (PM, PTL) |

1. Requirement Change Management

## Quality Management

### Defect Prevention Strategy

|  |  |  |
| --- | --- | --- |
| Item (Process/Product) | Strategy | Expected Benefits |
| Requirement missing | List up all of requirement into SRS document. | 10–20% reduction in defect injection rate and about 2% improvement in productivity |
| Careless mistake in Design Document Format/Template wrong | After designing, QA will review Document Format base on checklist review design | Improvement in quality as overall defect removal efficiency will improve; some benefits in productivity as defects will be detected early |
| Use wrong template | Have a meeting to disseminate all template that is used in this project for all member | All member will use right template when do document |
| Coding application does not match with User Requirement. | Develop Team must study about Requirement/Design within 1 weeks since project is assigned.  PM and PTL has responsibility to review task results and explain User Requirement for Develop Team | Coding Application match with User Requirement. |

1. Defect Prevention Strategy

### Review Strategy

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Review Item | Reviewer | Review Type | Review Method | Completion Criteria |
| Project Plan  Project Schedule  CM Plan | PM,QA, Supervisor | Group review  Group review  One-person review | Use checklist and Self-review |  |
| Business analysis and requirements specification document, Use Case catalog | PM,QA, Supervisor | Group review and One-person review | Use checklist |  |
| Design document, object model | Self-review, PM,QA Supervisor | One-person Review | Use checklist |  |
| Stage plans | PM,QA, Supervisor | One-person review | Use checklist |  |
| Complex/first time generated program specs incl. test cases, interactive diagrams |  | Group review |  |  |
| Source code | Self-review, Peer review, PM, Supervisor | One-person review and Group review | Self-review and use checklist |  |

1. Review Strategy

### Unit Testing Strategy

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item to be Unit Tested | Unit Test Type | Unit Test Technique | Tool Used | Unit Test Completion Criteria |
| Source Code | White-Box Test | Using unit test case and test script | None | - Number of UTC/KLOC: 20 UTC/KLOC  - Number defects/KLOC: 3-4 defects/KLOC  - Statement coverage: 97%  - Branch coverage: 100%  - Path coverage: 100% |

1. Unit Testing Strategy

### Integration Testing Strategy

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item to be Integration Tested | Integration Test Type | Integration Test Technique | Tool Used | Completion Criteria |
| Do test by flow of functions and items which have concern each other | Black-Box Test |  | Checklist, Boundary | - Number of UTC/KLOC: 20  - Number of defects/KLOC: 2-3 |

1. Integration Testing Strategy

### System Testing Strategy

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Item to be System Tested | System Test Type | System Test Technique | Tool Used | Completion Criteria |
| Test whole system | Black-Box Test |  | None | -Number of UTC/KLOC: 60  -Number of defects/KLOC: 4-6 |

1. System Testing Strategy

### Estimates of Defects to be detected

|  |  |  |  |
| --- | --- | --- | --- |
| Review/Testing Stage | Targeted No. of Defects to be detected | % of Defects to be detected | Basic for Estimation |
| Requirements review | 10 | 7.5% | Referenced to similar project estimations |
| Design review | 15 | 11.5% | Referenced to similar project estimations |
| Code review | 30 | 23% | Referenced to similar project estimations |
| Unit Test | 45 | 35.5% | Referenced to similar project estimations |
| Integration Test | 15 | 11.5% | Referenced to similar project estimations |
| System Test | 10 | 7.5% | Referenced to similar project estimations |
| User Acceptance Test | 5 | 3.5% | Referenced to similar project estimations |
| Total | 130 | 100% |  |

1. Estimates of Defects

### Measurements Program

|  |  |  |  |
| --- | --- | --- | --- |
| Data to be collected | Purpose | PIC | When |
| Size: No. of KLOC | Achieve target | PM | At the end of stages |
| Effort: No. person-day | Monitor and controlling team member to keep plan. | Team members | Daily |
| Quality: No. defects detected | Managing product’s quality. | Reviewer  Tester | Right after the review/test |
| Schedule | Monitor and controlling software developing processing keep plan. | PM | Weekly and at the end of stages |

1. Measurements Program

# ESTIMATION

## Size

This project is performed and must complete all requirements from teacher and FPT University. So size of our project is in Capstone Project limit.

## Effort

The Effort estimation is documented in the table below.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Initiation | Solution | Construction | Termination | Total |
| Effort(person/day) | 82 | 163 | 200 | 65 | **510** |
| Total % budgeted Effort Usage (%) | 100 | 100 | 100 | 100 |  |

1. Effort Estimation

## Schedule

### Project Milestone & Deliverables

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Stage | Committed Delivery date | Description of Deliverable | Delivery media |
| Initiation | |  | Requirements agreed, Report 1 reviewed | |
| 1 | Develop project idea | 06-09-2016 | Project goals and scope defined, milestone description defined, resource committed | Commit TortoiseGit |
| 2 | Q&A Management Sheet | 12-09-2016 | Criteria: Documentation reviewed | Commit TortoiseGit |
| 3 | Complete User Requirement Specification | 16-09-2016 | Complete User Requirement Specification | Commit TortoiseGit |
| 4 | Submit report no.1 final | 16-09-2016 | Completed report no.1 | Commit TortoiseGit |
| 5 | Project Plan | 15-09-2016 | Criteria: Documentation reviewed | Commit TortoiseGit |
| Solution | |  |  | |
| 1 | Screen Prototype | 02-10-2016 | Criteria: Documentation reviewed | Commit TortoiseGit |
| 2 | Architecture Design | 04-10-2016 | Criteria: Documentation reviewed | Commit TortoiseGit |
| 3 | Screen Design | 06-10-2016 | Criteria: Documentation reviewed | Commit TortoiseGit |
| 4 | Class Design | 04-10-2016 | Criteria: Documentation reviewed | Commit TortoiseGit |
| 5 | Detail Data Design | 07-10-2016 | Criteria: Documentation reviewed | Commit TortoiseGit |
| 6 | Submit progress report 2 | 5-10-2016 | Completed report no.2 | Commit TortoiseGit |
| 7 | Create Test Plan Final | 13-10-2016 | Criteria: Documentation reviewed | Commit TortoiseGit |
| 8 | Submit Report no.3 Final | 14-10-2016 | Completed report no.3 | Commit TortoiseGit |
| Construction | |  | Product developed & tested and released to supervisor, documentation reviewed. | |
| 1 | Complete Coding and Unit Test | 14-11-2016 | Source code  Acceptance criteria: Product unit tested | Commit TortoiseGit |
| 4 | Complete Testing | 28-11-2016 | Completed Test | Commit TortoiseGit |
| 5 | Submit report no.5 Final | 02-12-2016 | Completed report no.5 | Commit TortoiseGit |
| 6 | Submit the last document and CD source code | 10-12-2016 | Final Documents and Source Code | Commit TortoiseGit |
| Termination | |  | Project post-mortem is conducted, Project assets archived and released to supervisor | |
| 1 | Lesson learned | 05-12-2015 | Criteria: Completed | Commit TortoiseGit |
| 2 | Complete Presentation Slide | 07-12-2016 | Criteria: Completed | Commit TortoiseGit |
| 3 | Present capstone project | 16-12-2016 | Criteria: Completed | Commit TortoiseGit |
| 4 | Project Complete | 16-12-2016 | Criteria: Completed | Commit TortoiseGit |

1. Project Milestone and Deliverables

### Activity Schedule

The detail project schedule is available in file WS\_ProjectSchedule\_v1.0\_EN.mpp. The Project Schedule is weekly updated by the Project Manager.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Activity | Start date | End date | Responsible |
| Defect Prevention | | | | |
| 1 | Training coding convention C#, Javascript, CSS | 12-09-2016 | 16-09-2016 | Lê Hồng Nhiên |
| 2 | Training for Q&A and tester to use checklist | 06-10-2016 | 10-10-2016 | Tạ Ngọc Duy |
| **Quality Control** | | | | |
| 1 | Group review requirement | 14-10-2016 | 16-10-2016 | Đào Trọng Nghĩa |
| 2 | Group review design | 07-10-2016 | 09-10-2016 | Tạ Ngọc Duy |
| 3 | Group review coding | 16-11-2016 | 24-11-2016 | Lê Hồng Nhiên |
| Project Tracking | | | | |
| 1 | Solution: Milestone review meeting | 15-10-2016 | 16-10-2016 | Đào Trọng Nghĩa |
| 2 | Construction: Milestone review meeting | 3-12-2016 | 04-12-2016 | Đào Trọng Nghĩa |
| 3 | Transition: Milestone review meeting | 10-12-2016 | 11-12-2016 | Đào Trọng Nghĩa |
| Configuration Management | | | | |
| 1 | Baseline code | 17-10-2016 | 20-10-2016 | Đào Trọng Nghĩa |
| 2 | Base line test report, test case and test plan | 22-10-2016 | 29-10-2016 | Đỗ Văn Tuấn |
| Q&A | | | | |
| 1 | Final Inspection: Report 1 | 05-09-2016 | 16-09-2016 | Đào Trọng Nghĩa |
| 2 | Final Inspection: Report 2 | 19-09-2016 | 05-10-2016 | Đào Trọng Nghĩa |
| 3 | Final Inspection: Report 3 | 06-10-2016 | 14-10-2016 | Đào Trọng Nghĩa |
| 4 | Final Inspection: Report 4 | 17-10-2016 | 15-11-2016 | Đào Trọng Nghĩa |
| 5 | Final Inspection: Report 5 | 1-11-2016 | 02-12-2016 | Đào Trọng Nghĩa |
| 6 | Final Inspection: Report 6 | 05-12-2016 | 10-12-2016 | Đào Trọng Nghĩa |

1. Activity Schedule

## Resource

Specified as in the section 4.2. [Project Team](#_Project_team)

## Infrastructure

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Description | Expected Availability by | Note |
| Development Environment | | | |
| Operating System | Window 8.1, 10 (32 bit, 64 bit) |  |  |
| Browser | Chrome (40 or above), Firefox (30 or above), Cốc Cốc |  |  |
| Development language | .NET C# |  |  |
| Technology | | | |
| Development language | .NET C#, MVC Model, AngularJS |  |  |
| Database | SQL Server 2008 |  |  |
| Hardware Requirement | | | |
| Hardware Configuration | 2GB workspaces on server |  |  |
| Equipment & Tools | | | |
| Source Version Control | TortoiseGit | Definition stage |  |
| Task Tracking | MS Project Professional 2013 | Initiation stage |  |
| SRS | Microsoft Office Word 2013, Microsoft Office Excel 2013, Microsoft Office Visio 2013 | Initiation stage |  |

1. Infrastructure

## Training Plan

|  |  |  |  |
| --- | --- | --- | --- |
| Training Area | Participants | Duration | Waiver Criteria |
| **Technical** | | | |
| .NET MVC5 | Team | 1 week | Mandatory |
| AngularJS, jQuery | Team | 1 week | Mandatory |
| Bootstrap | Team | 1 week |  |
| **Process** | | | |
| Quality system |  | 3 hours | If already trained |
| Configuration management |  | 2 hours | If already trained for CC. For others, on-the-job training |
| Group review |  | 2 hours | If already trained |
| Defect prevention |  | 2 hours | Mandatory |

1. Training Plan

## Finance

Because this project is non-business, it is a Capstone Project at FPT University. So we do not estimate about finance.

# PROJECT ORGANIZATION

## Organization Structure

Figure 1-2: Organization Structure

## Project Team

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Role | Responsibility | Full name | Effort (%) | Start date | End date |
| PM | Have overall responsibility of the project:  - Project planning and scheduling  - Task assignment and tracking processing  - Review documents  - Reporting to supervisor | Đào Trọng Nghĩa | 50 | 05-09-2016 | 15-12-2016 |
| PTL | PTL is responsible for the technical project execution | Lê Hồng Nhiên | 50 | 05-09-2016 | 15-12-2016 |
| Programmer #1 | - Study technique (C#, MVC, AngularJS, etc.)  - Coding functions and modules of system.  - Peer-review source code of others members | Đỗ Văn Tuấn,  Hoàng Anh Tuấn,  Tạ Ngọc Duy,  Lê Hồng Nhiên,  Đào Trọng Nghĩa | 100 | 05-09-2016 | 15-12-2016 |
| Programmer #2 | - Support coding functions and modules of system. | Lê Hồng Nhiên | 50 | 05-09-2016 | 15-12-2016 |
| Programmer #3 | - Support coding functions and modules of system. | Hoàng Anh Tuấn | 100 | 05-09-2016 | 15-12-2016 |
| Test Leader | - Create test plan, test case, test report, quality report  - Execute test. | Đỗ Văn Tuấn | 100 | 1-11-2016 | 15-12-2016 |
| Tester | - Support creating test plan, test case, test report, quality report  Execute test. | Tạ Ngọc Duy | 100 | 1-11-2016 | 15-12-2016 |
| Design  Lead | - Create screen design, prototype  - Review design of others member | Tạ Ngọc Duy | 100 | 05-09-2016 | 15-12-2016 |
| Designer #1 | - Support creating screen design | Đào Trọng Nghĩa | 50 | 05-09-2016 | 15-12-2016 |

1. Project Team description

The detail of Human resource budget allocation over the whole project life is in the below table:

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Role | Name | W2-  Sep | W3-  Sep | W4-  Sep | W1-  Oct | W2-  Oct | W3-  Oct | W4-  Oct | W1-  Nov | W2-  Nov | W3-  Nov | W4-  Nov | W1-  Dec | W2-  Dec | W3-  Dec | Total (pd) |
| PM/Designer | Đào Trọng Nghĩa | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 80 |
| PTL/Dev | Lê Hồng Nhiên | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 80 |
| Dev/Tester | Hoàng Anh Tuấn | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 80 |
| Test Leader/Dev | Đỗ Văn Tuấn | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 80 |
| Tester/Designer/Dev | Tạ Ngọc Duy | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 80 |
| **Total** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **400** |

1. Human Resource Budget Allocation

## External Interfaces

### FPT University’s Interfaces

|  |  |  |  |
| --- | --- | --- | --- |
| Department | Contact Person  (name-position) | Contact address  (email, telephone) | Responsibility |
| Teacher | Nguyen Van Sang | [SangNV@fpt.edu.vn](mailto:SangNV@fpt.edu.vn) | - Review and accept documents during project  - Review and accept products of the project.  - Resolve escalated issues and receive project reports. |
| Training Department |  | [acad.hn@fpt.edu.vn](mailto:acad.hn@fpt.edu.vn) | Management course of student |

1. FPT University’s Interfaces

# COMMUNICATION & REPORTING

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Communication Type | Method/Tool | When | Information | Participants/ Responsible |
| Project Task Tracking | | | | |
| Task scheduling | MS Project Professional 2013 | At the beginning of every stage, and weekly  Refinement and rescheduling as necessary |  | PM |
| Task assignment | MS Project Professional 2013 | Weekly |  | PTL |
| Task status reporting | Daily Report | Daily |  | Project Team members |

|  |
| --- |
| Project Meeting |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Kick-off Meeting | Face to face | Initiation stage | Project introduction; Project plan review; Risk identification; stakeholders identify. | PM, Project Team Members |
| Project Progress Review Meetings | Face to face | Weekly and on event | Communicate project status  Communicate and resolve any open issue, risks, and changes  Discuss any suggested improvement | PM, Project Team Members |
| Milestone Meetings | Face to face | 5 days after the completion of stages: Definition, Solution & Construction | Project objective review, evaluate project performance (quality, schedule, effort), Causal analysis, update project plan for next stage | PM, Project Team Members, QA, Supervisor |
| Transfer/Sharing of project documentation/information | TortoiseGit | When available | All project documentation and information | PM, Project Team Members, QA |

|  |
| --- |
| Supervisor Communication and Reporting: |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Project Report | Agreed FPT Software and FU standard format | Daily | Project status report, Issue requiring clarifications, escalation, if any | PM |
| Project Meetings with supervisor | Face to face | 13h45 Wednesday, Weekly | As above | PM |
| Requirement gathering/clarification | Face to face meeting | During requirement analysis phase | As in Q&A list | PM |

|  |
| --- |
| Communication with Supervisor |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Review Project Plan & Project schedule | By attend project meeting | Significant changes to WO, PP and Project schedule (scope, objectives Organization, HR, major milestone, deliverables ) |  | PM |
| Project Progress Review | By email and/or via Operation meeting at Group/Division level | Weekly | Project status report, Issue requiring clarifications, escalation, if any | PM |
| Project Milestone Review | By email and via project milestone review meeting | End of every stage | Project objective review, evaluate project performance (quality, schedule, effort), Causal analysis, update project plan for next stage | PM |

1. Communication and Reporting Plan

# CONFIGURATION MANAGEMENT

The detail configuration management is available in file:**WS\_CMPlan\_v1.0\_EN.docx**.