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|  |
| Capstone Project Document |

**DANDELION**

Report #1 – Project Plan

|  |  |  |
| --- | --- | --- |
| **Dandelion** | | |
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| **Project code** | DDL | |

**- Hanoi, 09/2015 -**

# SIGNATURE PAGE

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Record of change

\*A - Added M - Modified D – Deleted

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# DEFINITIONS AND ACRONYMS

|  |  |  |
| --- | --- | --- |
| Acronym | Definition | Note |
| BA | Business Analyst |  |
| BU | Business Unit |  |
| CC | Infrastructure Configuration Controller |  |
| CM | Configuration Management |  |
| 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 |  |
| DDL | Dandelion |  |

**Table 1-1:** Definitions and acronyms

# PROJECT OVERVIEW

## Project Description

|  |  |  |  |
| --- | --- | --- | --- |
| Project Code | DDL | Contract Type | None |
| Customer | FPT University | 2nd Customer | None |
| Project Level | Group | Project Rank | None |
| Application Type | Website | Project Manager | Luu Ngoc Manh |
| Project Category | Development | Business Domain | E-commerce |

**Table 1-2:** Project Description

## Scope and Purpose

### Purpose of Project

Nowadays people have a lot of idea to make things better. But many of people are short of funds to raise their idea. However, many thanks for internet they can easy to show these ideas to everyone.   
Our project – Dandelion is a major platform for crowdfunding. Anybody could launch a project on Dandelion as long as it follows our rules. We believe that creative projects making a better world, and we’re thrilled to help support new ones. Building a community of backers around an idea is an amazing way to make something new.

### 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 DDL’s project:

#### Client Module.

* **Register**: User can register an account and login to use all features of DDL.
* **Login/Logout**: Users login/logout an account to use or exit system DDL.
* **Search**: User and guest can search with code of project, name of project, name of creator; and system will display all of project relate to keywords.
* **Filter**: User can filter with category (Art, Comics, Game, etc.), place (Vietnam, etc.), Status (Magic, Popularity, Most Funded, etc.). And system will display projects relate to these selected options.
* **Project:**
  + **Create New Project:** Users can create new projects with basic info, reward, timeline, clip and some pictures.
  + **Update Project Information**: User can change and update information of projects which created.
  + **Comment/Remind**: Users can comment/remind a project to follow and discuss with another users.
  + **Report:** User can report a project which violate regulation to administrator.
* **Back Project**: User can back another project to donate money to help project success and get rewards.
* **Profile:**
  + **Change password:** User can change password to keep security.
  + **Update profile:** User can change or update information.
  + **Manage created projects, backed projects, reminded projects:** User can follow process of projects, follow project backed, project reminded. View statistical projects had created, backed, reminded.
  + **Sent/Receive message:** Users can send or receive from another users to discuss about project information.

#### Admin Module

* **Manage user:**
  + **Search user:** Admin can search with name of user and system will display simple information about that user(name, email, phone number)
  + **Inactive/active user:** admin can set user’s account to inactive or active.
* **Manage project:** 
  + **Search project :** 
    - **Search with project name:** Admin can search with name of project and system will display simple information about that project.
    - **Search with category:** Admin can search with category of project and system will display all project with that category
    - **Search with Creator name:** Admin can search with Creator name of project and system will display all project of that user.
  + **Edit project status:** Admin can set status of a project: pending to approved, pending to suspend, approved to suspend, etc.
* **Manage Backing:** Admin can view users who backed a project. Also, Admin can view simple information about that user and which reward they chose.
* **Manage Categories:** 
  + **Add new category:** Admin can add new category.
  + **Inactive/active category:** Admin can set category’s status to inactive or active
* **Manage Slider:** Slider list includes images what running at homepage.
  + **Add new image:** Admin can add new image to slider
  + **Inactive/active:** Admin can set image’s status to inactive or active on slider.
  + **Delete image:** Admin can delete image.
* **Message:** Admin can view received messages/sent messages.
  + **Compose new message:** Admin can compose new message to send to user.
  + **Delete message**: Admin can delete received messages/sent messages.

## 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 25/12/2015 | 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 completedwithin12dayssince10/09/2015  **Deadline**: 28/09/2015 | Schedule |
| 4 | Design Document (include Architecture Design, Screen Design, Database Design) must be completed within 18 days since 25/09/2015  Deadline:20/10/2015 | Schedule |
| 5 | Integration TestPlan (include test plan and test case…) must be completed within15dayssince22/10/2015  **Deadline**: 16/11/2015 | Schedule |
| 6 | Completed coding activity and have unit test result within 20 days since 03/11/2015  **Deadline**: 30/11/2015 | Schedule |
| 8 | Deliver report about User manual, software package and installation guide on 5 days since 13/11/2015  **Deadline**: 18/12/2015 | Schedule |
| 9 | Complete all of document and application before finishingtheprojecton25/12/2015 | Schedule |
| 10 | Project contains 6 members | Resource |

**Table 1-3:** Project Description

## Project Objectives

### Standard Objectives

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Metrics | Unit | Committed | Re-committed | Note |
| Start Date |  | 07-09-2015 |  |  |
| End Date |  | 25-12-2015 |  |  |
| Duration | Day | 80 |  |  |
| Team Size | Person | 6 |  |  |
| Billable Effort | Person-day | 480 |  | 1 Person-day = 5 hours |
| Calendar effort | Person-day | 480 |  | 1 Person-day = 5 hours |
| Effort Usage | % | 100 |  | 1 Person-day = 5 hours |

**Table 1-4:** Standard Objectives

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

**Table 1-5:** Standard Objectives

### Specific Objectives

|  |  |  |  |
| --- | --- | --- | --- |
| Metrics | Unit | Basic for setting Goals | |
| Plan | Actual |
| Training technology: MVC, Bootstrap, jQuery, AngularJS | Person-day | 15 | 15 |
| Execute group review | Person-day | 8 | 5 |
| Training requirements, process before coding | Person-day | 8 | 5 |

**Table 1-6:** Specific Objective

## Critical Dependencies

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Dependency | Expected delivery date | | Note |
| 1 | This project must be completed and delivered to FPT University. | 25/12/2015 |  | |
| 2 | Project Plan and SRS must be completed and delivered to Supervisor. | 28/09/2015 |  | |
| 3 | User manual, Software Package and Installation Guide must be completed and delivered to Supervisor and FPT University. | 18/12/2015 |  | |
| 4 | Beside Capstone Project, Team members have to joining in Japanese class and Japanese Fundamental Exam class. | 07/09/2015 |  | |

**Table 1-7:** 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 DDL\_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 1-1:** 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, Report #6
* **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.

## 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) |

**Table 1-8:** 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. |

**Table 1-9:** 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 |  |

**Table 1-10:** 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% |

**Table 1-11:** 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 |

**Table 1-12:** 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 |

**Table 1-13:** 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% | Referenced to similar project estimations |
| Design review | 15 | 11% | Referenced to similar project estimations |
| Code review | 30 | 22% | Referenced to similar project estimations |
| Unit Test | 50 | 38% | Referenced to similar project estimations |
| Integration Test | 15 | 11% | Referenced to similar project estimations |
| System Test | 10 | 7% | Referenced to similar project estimations |
| User Acceptance Test | 5 | 4% | Referenced to similar project estimations |
| Total | 135 | 100% |  |

**Table 1-14:** 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 |

**Table 1-15:** 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) | 72 | 168 | 186 | 54 | **480** |
| Total % budgeted Effort Usage (%) | 100 | 100 | 100 | 100 |  |

**Table 1-16:** 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 | 08-09-2015 | Project goals and scope defined, milestone description defined, resource committed |  |
| 2 | Q&A Management Sheet | 14-09-2015 | Criteria: Documentation reviewed |  |
| 3 | Submit report no.1 final | 22-09-2015 | Completed report no.1 |  |
| 4 | Project Plan | 21-09-2015 | Criteria: Documentation reviewed |  |
| 5 | Submit report no.2 final | 19-10-2015 | Completed report no.2 |  |
| Solution | |  |  | |
| 1 | Screen Prototype | 05-10-2015 | Criteria: Documentation reviewed |  |
| 2 | Architecture Design | 08-10-2015 | Criteria: Documentation reviewed |  |
| 3 | Screen Design | 09-10-2015 | Criteria: Documentation reviewed |  |
| 4 | Class Design | 16-10-2015 | Criteria: Documentation reviewed |  |
| 5 | Detail Data Design | 05-10-2015 | Criteria: Documentation reviewed |  |
| 6 | SRS | 28-09-2015 | Criteria: Documentation reviewed |  |
| 7 | Submit Report no.3 Final | 28-10-2015 | Completed report no.3 |  |
| 8 | Submit Test Plan Final | 28-10-2015 | Criteria: Documentation reviewed |  |
| 9 | Create Test Case | 12-11-2015 | Criteria: Documentation reviewed |  |
| 10 | Submit Report no.4 Final | 25-11-2015 | Completed report no.4 |  |
| Construction | |  | Product developed & tested and released to supervisor, documentation reviewed. | |
| 1 | Review Test Document | 12-11-2015 | Criteria: Documentation reviewed |  |
| 2 | Submit report no.5 Final | 10-12-2015 | Completed report no.5 |  |
| 3 | Complete Coding and Unit Test | 24-11-2015 | Source code  Acceptance criteria: Product unit tested |  |
| 4 | Complete Testing | 04-12-2015 | Completed Test |  |
| 5 | Submit report no.6 Final | 14-12-2015 | Completed report no.6 |  |
| 6 | Submit the last document and CD source code | 15-12-2015 | Final Documents and Source Code |  |
| Termination | |  | Project post-mortem is conducted, Project assets archived and released to supervisor | |
| 1 | Lesson learned | 11-12-2015 | Criteria: Completed |  |
| 2 | Complete Presentation Slide | 14-12-2015 | Criteria: Completed |  |
| 3 | Represent capstone project | 24-12-2015 | Criteria: Completed |  |
| 4 | Project Complete | 25-12-2015 | Criteria: Completed |  |

**Table 1-17:** Project Milestone and Deliverables

### Activity Schedule

The detail project schedule is available in file DDL\_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 | 24-09-2015 | 24-09-2015 | Nguyen Minh Huy |
| 2 | Training for Q&A and tester to use checklist | 15-10-2015 | 16-10-2015 | Cao Thi Phuong Mai |
| **Quality Control** | | | | |
| 1 | Group review requirement | 14-10-2015 | 16-10-2015 | Luu Ngoc Manh |
| 2 | Group review design | 07-10-2015 | 09-10-2015 | Vu Cong Chinh |
| 3 | Group review coding | 22-11-2015 | 24-11-2015 | Luu Ngoc Manh |
| Project Tracking | | | | |
| 1 | Solution: Milestone review meeting | 27-10-2015 | 28-10-2015 | Luu Ngoc Manh |
| 2 | Construction: Milestone review meeting | 06-12-2015 | 08-12-2015 | Luu Ngoc Manh |
| 3 | Transition: Milestone review meeting | 14-12-2015 | 15-12-2015 | Luu Ngoc Manh |
| Configuration Management | | | | |
| 1 | Baseline code | 17-10-2015 | 20-10-2015 | Luu Ngoc Manh |
| 2 | Base line test report, test case and test plan | 22-10-2015 | 29-10-2015 | Cao Thi Phuong Mai |
| Q&A | | | | |
| 1 | Final Inspection: Report 1 | 07-09-2015 | 22-09-2015 | Luu Ngoc Manh |
| 2 | Final Inspection: Report 2 | 22-09-2015 | 19-10-2015 | Luu Ngoc Manh |
| 3 | Final Inspection: Report 3 | 20-10-2015 | 28-10-2015 | Luu Ngoc Manh |
| 4 | Final Inspection: Report 4 | 29-11-2015 | 25-11-2015 | Luu Ngoc Manh |
| 5 | Final Inspection: Report 5 | 26-12-2015 | 10-12-2015 | Luu Ngoc Manh |
| 6 | Final Inspection: Report 6 | 11-12-2015 | 14-12-2015 | Luu Ngoc Manh |

**Table 1-18:** 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 (32 bit, 64 bit) |  |  |
| Browser | Chrome (40 or above), Firefox (30 or above) |  |  |
| Development language | .NET C# |  |  |
| Technology | | | |
| Development language | .NET C#, MVC Model, AngularJS |  |  |
| Database | SQL Server 2012 |  |  |
| 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 |  |

**Table 1-19:** Infrastructure

## Training Plan

|  |  |  |  |
| --- | --- | --- | --- |
| Training Area | Participants | Duration | Waiver Criteria |
| **Technical** | | | |
| .NET MVC5 | HuyNM, TrungCV | 1 week | Mandatory |
| AngularJS, jQuery | HuyNM, TrungCV | 1 week | Mandatory |
| Bootstrap | ChinhVC, AnhDD, MaiCTP | 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 |

**Table 1-20:** 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 | Luu Ngoc Manh | 50 | 07-09-2015 | 25-12-2015 |
| PTL | PTL is responsible for the technical project execution | Luu Ngoc Manh | 50 | 07-09-2015 | 25-12-2015 |
| Programmer #1 | - Study technique (C#, MVC, AngularJS, etc.)  - Coding functions and modules of system.  - Peer-review source code of others members | Nguyen Minh Huy, Vu Ngoc Trung, | 100 | 07-09-2015 | 25-12-2015 |
| Programmer #2 | - Support coding functions and modules of system. | Duong Duc Anh | 50 | 07-09-2015 | 25-12-2015 |
| Programmer #3 | - Support coding functions and modules of system. | Cao Thi Phuong Mai, Vu Cong Chinh | 50 | 07-09-2015 | 30-10-2015 |
| Test Leader | - Create test plan, test case, test report, quality report  - Execute test. | Cao Thi Phuong Mai | 100 | 30-10-2015 | 25-12-2015 |
| Tester | - Support creating test plan, test case, test report, quality report  Execute test. | Vu Cong Chinh | 50 | 30-10-2015 | 25-12-2015 |
| Design  Lead | - Create screen design, prototype  - Review design of others member | Vu Cong Chinh | 50 | 07-09-2015 | 25-12-2015 |
| Designer #1 | - Support creating screen design | Duong Duc Anh | 50 | 07-09-2015 | 25-12-2015 |
| Designer #2 | - Support creating screen design | Cao Thi Phuong Mai | 50 | 07-09-2015 | 30-10-2015 |

**Table 1-21:** 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/PTL | Luu Ngoc Manh | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 80 |
| Dev | Nguyen Minh Huy | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 80 |
| Dev | Vu Ngoc Trung | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 80 |
| Test Leader/Dev | Cao Thi Phuong Mai | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 80 |
| Tester/Designer/Dev | Vu Cong Chinh | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 80 |
| Tester/Designer/Dev | Duong Duc Anh | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 100% | 80 |
| **Total** |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | **480** |

**Table 1-22:** Human Resource Budget Allocation

## External Interfaces

|  |  |  |  |
| --- | --- | --- | --- |
| Department | Contact Person  (name-position) | Contact address  (email, telephone) | Responsibility |
| Teacher | Pham Ngoc Ha | [HaPN@fsoft.com.vn](mailto:HaPN@fsoft.com.vn) | Explain whole questions about JS course |

### FPT Software 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 |

**Table 1-23:** FPT Software Interfaces

### FPT University’s Interfaces

**Table 1-24:** 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 | 5pm Monday, Weekly | Project status report, Issue requiring clarifications, escalation, if any | PM |
| Project Meetings with supervisor | Face to face | 12h30 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 |

**Table 1-25:** Communication and Reporting Plan

# CONFIGURATION MANAGEMENT

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