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

**BOOKAHOLIC SOCIAL NETWORK**

Report #1 – Project Plan

|  |  |  |
| --- | --- | --- |
| **Bookaholic Social Network** | | |
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| **Supervisor** | Mr. Nguyen Van Sang | |
| **Project code** | BSN | |

**- Hanoi, 09/2016 -**

# SIGNATURE PAGE

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REVIEWERS: Thai Thi Cam Van --/--/2016

Team member

APPROVAL: Nguyen Van Sang --/--/2016

Supervisor

Record of change:

\*A - Added M - Modified D – Deleted

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
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| 18/Sep/2016 | Create Project Plan | A | First version | Create Project Plan | 1.0 |
| 03/Dec/2016 | Update | M | Update | Update documents for Final report | 1.1 |

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# Introduction

## Purpose

This is the Project Management Plan of Bookaholic Social Network Project – our Capstone Project in FPT University. It includes the project overview, project organization, tools, infrastructures and schedule of this project.

## Definitions and Acronyms

|  |  |  |
| --- | --- | --- |
| Acronym | Definition | Note |
| BA | Business Analyst |  |
| BU | Business Unit |  |
| CC | Infrastructure Configuration Controller |  |
| CM | Configuration Management |  |
| BSN | Bookaholic Social Network |  |
| 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 |  |
| HuyenPT | Pham Thi Huyen | Team member |
| VanTTC | Thai Thi Cam Van | Team member |
| DangVH | Vu Hai Dang | Team member |
| YenNTH | Nguyen Thi Hai Yen | Team member |
| HaiCM | Chu Minh Hai | Team member |
| FPTU | FPT University |  |

Table ‑: Definitions and acronyms

# PROJECT OVERVIEW

## Project Description

|  |  |  |  |
| --- | --- | --- | --- |
| Project Code | BSN | Contract Type | None |
| Customer | FPT University | 2nd Customer | None |
| Project Level | Group | Project Rank | None |
| Application Type | Website | Project Manager | Pham Thi Huyen |
| Project Category | Development | Business Domain | E-commerce |

Table ‑: Project Description

## Scope and Purpose

### Purpose of Project

Nowadays, as the negative side of social media, teens are not often reading books, especially traditional books. In Vietnam, almost people prefer to spend time for web surfing than read a paper books. Our idea is creating a website that allows people to share and talk about books they would like to read or authors they are interested in. This project aims to make more fun in reading to encourage people especially teens to read more.

### 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 BSN’s project:

#### Guest Module

* **Register**: To use lots of function of our website, guests can register for an account. However, there are difference between reader account and author account. If users want to have an author account, they will have to wait for admin to validate their personal information

#### Reader/Author Module

* **Manage account:**
* Login/Logout: Users login/logout an account to use or exit system BSN. All users have to register for an account to use our website.
* Edit profile: User can edit their profile such as name, date of birth, avatar photo, etc.
* Reset password: If users forget their password, they can send request and system will send them an auto mail to confirm new password.
* **Manage recommendation:**
* Post a recommendation: User can recommend about books as a post. To recommend books, users are forced to tag those books on their post.
* Edit post: Users can edit both caption and tags of post.
* Delete/Like a post.
* Comment on a post: Users can comment on a post.
* Delete comments: Users can delete their comment in need.
* **Manage interactions:**
* Follow other accounts.
* Report other accounts/groups: Users can report other accounts/groups if those accounts/groups have invalid content or copyright infringement.
* Send message to other accounts.
* Send join-group request: There are several groups about books or authors and users can request to admin of a group to be its members.
* Out a group: If users see a group is not appropriate with them or they do not want to join a group anymore, they can remove themselves from that group.
* **Manage groups:**
* Create a group: To create a group, users have to tag a book or author as the topic of that group.
* Add new member to a group: Admin can add new members to their group by entering their name or accept join-group request.
* Manage group members:
* Set other members admin: Only admins can set other member admin.
* Remove members: Admin can remove members out of their group
* Edit group profile: Admin can edit group information as name, cover photo, etc.
* Delete a group: Admins can delete a group. To delete a group, they have to remove all of its members.
* Manage group post:
* Create a post in group: All members can create posts in a group and they do not need to tag a book/author.
* Edit a post in group: The owner of a post can edit their post.
* Delete a post: The owner of a post can delete if they want. Admins can also delete a post if they see it is inappropriate.
* **Search:** User can search for books, authors or other accounts
* **Rate a book:** User can rate books. We also suggest them books they may like.

#### Admin Module

* **Manage user account:**
* Search user: System admin can search for users and view their profile, posts, etc.
* Ban/Unban users: Admins can de-active user accounts.
* Decline requests about reporting an account/group: If a report is not valid, admin can decline it instead of approving.
* Accept/decline request about creating author account: Admins can approve or decline request about creating author account if it is valid or not.
* **Manage slides:**
* Add new slides: Slides are pictures showed off to help guests preview about our website. Admins will add new slides if need.
* Delete slides
* Active/De-active slides: If a slide is not in use, but admins want to keep it for using in future, they can de-active it and active when they need.
* **Manage publishers:**
* Add/Update/Delete publishers
* **View statistic:**
* Admins have right to view statistic about number of users/authors/group/books and authors in trend.

## 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 12/14/2016 | Schedule |
| 2 | In doing project processing, PM must submit report (include 6 reports) on certain date | Schedule |
| 3 | Software Requirement Specification for each phase will be completed at the end of that phase: + SRS for phase 1: deadline is 09/23/2016 + SRS for phase 2: deadline is 10/26/2016 + SRS for phase 3: deadline is 11/22/2016 | Schedule |
| 4 | Design Document (include Architecture Design, Screen Design, Database Design) of each phase must be completed at the end of each phase: + Screen Design for phase 1: deadline is 10/23/2016 + Screen Design for phase 2: deadline is 10/26/2016 + Screen Design for phase 3: deadline is 11/22/2016  + Database Design for whole project: deadline is 10/03/2016 + Architecture Design for whole project: deadline is 10/03/2016 | Schedule |
| 5 | Execute Integration TestPlan (include test plan and test case) | Schedule |
| 6 | Completed coding activity and have unit test result | Schedule |
| 8 | Deliver report about User manual, software package and installation guide | Schedule |
| 9 | Complete all of document and application before finishingtheprojecton | Schedule |
| 10 | Project contains 5 members | Resource |

Table ‑: Assumptions and Constraints

## Project Objectives

### Standard Objectives

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Metrics | Unit | Committed | Re-committed | Note |
| Start Date |  | 09/05/2016 |  |  |
| End Date |  | 12/14/2016 |  |  |
| Duration | Day | 78 |  |  |
| Team Size | Person | 5 |  |  |
| Billable Effort | Person-day | 390 |  | 1 Person-day = 5 hours |
| Calendar effort | Person-day | 390 |  | 1 Person-day = 5 hours |
| Effort Usage | % | 100 |  | 1 Person-day = 5 hours |

Table ‑: Standard Objectives

|  |  |  |
| --- | --- | --- |
| Metrics | Unit | Basic for setting Goals |
| Average |

|  |  |  |
| --- | --- | --- |
| Customer Satisfaction | Point | 9.5 |
| Leakage | Wdef/mm | 5 |
| Effort Efficiency | % | 95 |
| Timeliness | % | 100 |

Table ‑: Standard Objectives

### Specific Objectives

|  |  |  |  |
| --- | --- | --- | --- |
| Metrics | Unit | Basic for setting Goals | |
| Plan | Actual |

|  |  |  |  |
| --- | --- | --- | --- |
| Training technology: ASP .net MVC5 framework, SignalR libary, Cloudinary service, etc. | Person-day | 12 | 12 |
| Execute group review | Person-day | 8 | 5 |
| Training requirements, process before coding | Person-day | 5 | 3 |

Table ‑: Specific Objectives

## Critical Dependencies

|  |  |  |  |
| --- | --- | --- | --- |
| No | Dependency | Expected delivery date | Note |

|  |  |  |  |
| --- | --- | --- | --- |
| 1 | This project must be completed and delivered to FPT University. | Dec/14/2016 |  |
| 2 | Project Plan and SRS must be completed and delivered to Supervisor by the end of each phase | + Phase 1: Sep/23/2016 + Phase 2: Oct/26/2016 + Phase 3: Nov/22/2016 |  |
| 3 | User manual, Software Package and Installation Guide must be completed and delivered to Supervisor and FPT University. | Dec/14/2016 |  |
| 4 | Beside Capstone Project, Team members have to joining in Japanese class and Japanese Fundamental Exam class. | Dec/17/2016 |  |

Table ‑: 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 BSN\_Risk Management Plan\_v1.0\_EN.xlsx

# PROJECT DEVELOPMENT APPROACH

## Project Process

Process of this project is performed follow to Iterative and Incremental model.

### Iterative and Incremental Model

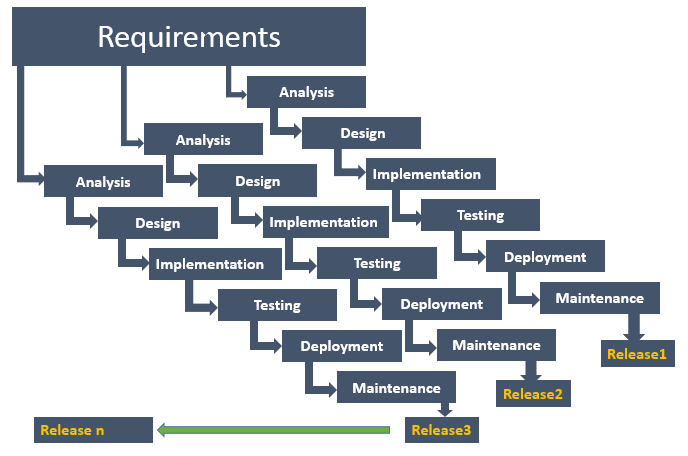
****

Figure ‑: Iterative and Incremental Model

### Project Life Cycle

Basing on Iterative and Incremental model and real-world project, we decided to divide the project into 5 phases: Initiation, Implement 1, Implement 2, Implement 3 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 and detail the project plan. 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
* Install tools and environment
* **Implement 1:** In this phase, the architecture of the 1st part of system is designed. The goal is to translate requirements and specification into a technical solution to produce Technical Design and coding.
* Ourobjectivesare completeRequirement Specification of 1st part, Architecture Design of 1st part and Database Design.
* Complete designing screen for first phase
* Code first part of admin module and account management module includes unit testing.
* Complete report #1, report #2, 1st part of report #3, 1st part of report #4 and 1st part of report #5.
* **Implement 2:** In this phase, the architecture of the 2nd part of system is designed. The goal is to translate requirements and specification into a technical solution to produce Technical Design and coding.
* Ourobjectivesare completeRequirement Specification of 2nd part and Architecture Design of 2nd part.
* Complete designing screen for second phase
* Code and execute unit test for second part includes: Recommendation Management Module, Group Management Module, Interaction Management Module and Common Module.
* Complete 2nd part of report #3, 2nd part of report #4 and 2nd part of report #5.
* **Implement 3:** In this phase, the architecture of the 3rd part of system is designed. The goal is to translate requirements and specification into a technical solution to produce Technical Design and coding.
* Ourobjectivesare completeRequirement Specification of 3rd part and Architecture Design of 3rd part.
* Complete designing screen for 3rd phase
* Code and execute unit test for second part includes Admin Module 2nd part.
* Complete 3rd part of report #3, 3rd part of Report #4 and 3rd part of report #5.
* **Termination Phase**: This is the final phase in the life cycle of our project.
* Create installing guideline and user guideline
* Complete and submit final report.

## Requirement Change Management

|  |  |
| --- | --- |
| Who logs the change request? | Any team members |
| Who reviews the change request? | PM or members assigned by PM |
| 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 ‑: 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 be improved; 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 writing document |
| Coding application does not match with User Requirement. | Development Team must study Requirement/Design within 1 week since project is assigned.  PM and PTL has responsibility to review task results and explain User Requirement for Development Team | Coding Application match with User Requirement |

Table ‑: Defect Prevention Strategy

### Review Strategy

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Review Item | Reviewer | Review Type | Review Method | Completion Criteria |
| Project Plan  Project Schedule  CM Plan | Self-review PM QA Supervisor | Self-review Leader-review QA-Review | Use checklist and Self-review |  |
| Business analysis and requirements Specification Document, Use Case catalog | Other members  PM QA Supervisor | Peer-review Leader-review QA-Review | Use checklist |  |
| Design document, object model | Self-review PM QA Supervisor | Self-review Leader-review QA-Review | Use checklist |  |
| Stage plans | PM QA Supervisor | Leader-review QA-Review | Use checklist |  |
| Complex/first time generated program specs, test cases, interactive diagrams | All team members | Group review |  |  |
| Source code | Self-review Other members PM  Supervisor | Self-review  Peer-review Leader-review | Use checklist and Self-review |  |

Table ‑: 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, Checklist 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 ‑: 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 concerns with each other | Black-Box Test | Using checklist | None | - Number of UTC/KLOC: 20  - Number of defects/KLOC: 2-3 |

Table ‑: 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 ‑: 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 ‑: 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 control team member to keep plan. | Team members | Daily |
| Quality: No. defects detected | Manage product’s quality. | Reviewer  Tester | Right after the review/test |
| Schedule | Monitor and control software developing processing keep plan. | PM | Weekly and at the end of stages |

Table ‑: Measurements Program

# ESTIMATION

## Size

Size of our project is limited by requirements from teacher and FPT University. Our project must complete all of those requirements.

## Effort

Table ‑: Effort Estimation

The effort estimation is documented in the table below.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Initiation | Implement 1 | Implement 2 | Implement 3 | Termination | Total |
| Effort (person/day) | 45 | 95 | 145 | 60 | 45 | **390** |
| Total % budgeted effort usage (%) | 100 | 100 | 100 | 100 | 100 |  |

## Schedule

### Project Milestone & Deliverables

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Stage | Committed Delivery date | Description of Deliverable | Delivery media |
| Initiation | |  |  | |
| 1 | Develop project idea | 09/05/2016 | Project goals and scope defined | Commit on Github |
| Implement 1 | |  |  | |
| 1 | Q&A Sheet | 09/20/2016 | Q&A Sheet of phase #1 | Commit on Github |
| 2 | Project Plan | 09/20/2016 | Project Plan | Commit on Github |
| 3 | 1st part of User Requirement Specification | 09/23/2016 | SRS of phase #1 | Commit on Github |
| 4 | 1st part of Report #1 | 09/27/2016 | 1st part of Report #1 | Commit on Github |
| 5 | 1st part of Progress Report | 10/05/2016 | 1st part of Progress Report | Commit on Github |
| 6 | Coding checklist for 1st phase | 09/21/2016 | Coding checklist for 1st phase | Commit on Github |
| 7 | 1st part of Report #2 | 10/06/2016 | 1st part of Report #2 | Commit on Github |
| 8 | Unit Test Checklist for 1st phase | 10/03/2016 | Unit Test Checklist for 1st phase | Commit on Github |
| 9 | Source code for 1st part of Admin Module and Account Management Module | 10/10/2016 | Source code for 1st part of Admin Module and Account Management Module | Commit on Github |
| 10 | Screen Design for phase 1 | 10/03/2016 | Screen Design for phase 1 | Commit on Github |
| 11 | Test Plan for 1st phase | 10/03/2016 | Test Plan for 1st phase | Commit on Github |
| 12 | Test Case for 1st phase | 10/04/2016 | Test Case for 1st phase | Commit on Github |
| 13 | Test Report for executing 1st phase | 10/07/2016 | Test Report for executing 1st phase | Commit on Github |
| 14 | 1st part of Report #3 | 10/05/2016 | 1st part of Report #3 | Commit on Github |
| 15 | 1st part of Report #4 | 10/05/2016 | 1st part of Report #4 | Commit on Github |
| 16 | 1st part of Report #5 | 10/11/2016 | 1st part of Report #5 | Commit on Github |
| **Implement 2** | | | | |
| 1 | 2nd part of User Requirement | 10/18/2016 | 2nd part of User Requirement | Commit on Github |
| 2 | 2nd part of Report #1 | 10/18/2016 | 2nd part of Report #1 | Commit on Github |
| 3 | 2nd part of Progress Report | 10/18/2016 | 2nd part of Progress Report | Commit on Github |
| 4 | 2nd part of Report #2 | 10/18/2016 | 2nd part of Report #2 | Commit on Github |
| 5 | Unit Test Checklist for phase 2 | 10/21/2016 | Unit Test Checklist for phase 2 | Commit on Github |
| 6 | Screen Design for phase 2 | 10/19/2016 | Screen Design for phase 2 | Commit on Github |
| 7 | Source code for phase 2 | 11/15/2016 | Source code for phase 2 | Commit on Github |
| 8 | Test Plan for source code phase 2 | 10/21/2016 | Test Plan for source code phase 2 | Commit on Github |
| 9 | Test Case for source code of phase 2 | 10/27/2016 | Test Case for source code of phase 2 | Commit on Github |
| 10 | Test Report for phase 2 | 10/28/2016 | Test Report for phase 2 | Commit on Github |
| 11 | 3rd part of Report #3 | 10/27/2016 | 3rd part of Report #3 | Commit on Github |
| 12 | 3rd part of Report #4 | 10/27/2016 | 3rd part of Report #4 | Commit on Github |
| 13 | 2nd part of Quality Report | 10/28/2016 | 2nd part of Quality Report | Commit on Github |
| 14 | 3rd part of Report #5 | 11/21/2016 | 3rd part of Report #5 | Commit on Github |
| **Implement 3** | | | | |
| 1 | User Requirement completed | 11/25/2016 | User Requirement completed | Commit on Github |
| 2 | Coding Checklist for phase 3 | 11/28/2016 | Coding Checklist for phase 3 | Commit on Github |
| 3 | 3rd of Progress Report | 11/28/2016 | 3rd of Progress Report | Commit on Github |
| 4 | 3rd of Report #1 | 11/28/2016 | 3rd of Report #1 | Commit on Github |
| 5 | 3rd of Report #2 | 11/28/2016 | 3rd of Report #2 | Commit on Github |
| 6 | Unit Test Checklist for Implement 3 | 11/29/2016 | Unit Test Checklist for Implement 3 | Commit on Github |
| 7 | Source code for Implement 3 | 11/30/2016 | Source code for Implement 3 | Commit on Github |
| 8 | Test Plan for Implement 3 | 11/30/2016 | Test Plan for Implement 3 | Commit on Github |
| 9 | Test Case for Implement 3 | 12/02/2016 | Test Case for Implement 3 | Commit on Github |
| 10 | Test Report for Implement 3 | 12/06/2016 | Test Report for Implement 3 | Commit on Github |
| 11 | 3rd part of Report #3 | 11/23/2016 | 3rd part of Report #3 | Commit on Github |
| 12 | 3rd part of Report #4 | 11/23/2016 | 3rd part of Report #4 | Commit on Github |
| 13 | Quality Report for Implement #3 | 12/06/2016 | Quality Report for Implement #3 | Commit on Github |
| 14 | Progress Report for Implement #3 | 12/08/2016 | Progress Report for Implement #3 | Commit on Github |
| 15 | 3rd part of Report #5 | 12/08/2016 | 3rd part of Report #5 | Commit on Github |
| **Termination** | | | | |
| 1 | Lesson learned | 12/09/2016 | Lesson learned after project | Commit on Github |
| 2 | Final Report | 12/12/2016 | Final Report | Commit on Github |
| 3 | Installing Guideline | 12/12/2016 | Installing Guideline | Commit on Github |
| 4 | User Guideline | 12/13/2016 | User Guideline | Commit on Github |
| 5 | Project Result Assessment | 12/12/2016 | Project Result Assessment | Commit on Github |
| 6 | Slides for Final Presentation | 12/12/2016 | Slides for Final Presentation | Commit on Github |

Table ‑: Project Milestone and Deliverables

### Activity Schedule

The detail project schedule is available in file BSN\_ProjectSchedule\_v1.4\_EN.mpp. The Project Schedule is weekly updated by the Project Manager.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| No | Activity | | Start date | End date | Responsible |
| **Defect Prevention** | | | | | |
| 1 | Training using tool: GitHub | | 09/06/2016 | 09/06/2016 | HuyenPT |
| 2 | Training coding convention: C#, JavaScript, CSS | | 10/06/2016 | 10/06/2016 | DangVH |
| 3 | Training for Q&A and tester to use checklist | | 09/18/2016 | 09/18/2016 | YenNTH |
| **Quality Control** | | | | | |
| 1 | Group requirement review | | 09/22/2016 | 09/22/2016 | HuyenPT  VanTTC |
| 10/17/2016 | 10/17/2016 |
| 11/25/2016 | 11/25/2016 |
| 2 | Group design review | | 09/13/2016 | 09/13/2016 | YenNTH  VanTTC |
| 10/04/2016 | 10/04/2016 | YenNTH  VanTTC |
| 3 | Group coding review | | 10/11/2016 | 10/11/2016 | DangVH |
| 11/22/2016 | 11/22/2016 |
| 12/11/2016 | 12/11/2016 |
| **Project Tracking** | | | | | |
| 1 | Solution: Milestone review meeting | | 09/15/2016 | 09/15/2016 | HuyenPT |
| 2 | Construction: Milestone review meeting | | 10/12/2016 | 10/12/2016 | HuyenPT |
| 11/23/2016 | 11/23/2016 | HuyenPT |
| 3 | Transition: Milestone review meeting | | 12/13/2016 | 12/13/2016 | HuyenPT |
| **Configuration Management** | | | | | |
| 1 | Baseline code | | 11/27/2016 | 11/30/2016 | HuyenPT |
| 2 | Base line test report, test case and test plan | | 12/01/2016 | 12/04/2016 | YenNTH |
| **Q&A** | | | | | |
| 1 | Final Inspection: | Report 1 | 09/27/2016 | 12/13/2016 | HuyenPT |
| 2 | Final Inspection: | Report 2 | 10/06/2016 | 12/13/2016 | HuyenPT |
| 3 | Final Inspection: | Report 3 | 10/05/2016 | 12/13/2016 | HuyenPT |
| 4 | Final Inspection: | Report 4 | 05/10/2016 | 12/13/2016 | HuyenPT |
| 5 | Final Inspection: | Report 5 | 11/10/2016 | 12/13/2016 | HuyenPT |
| 6 | Final Inspection: | Report 6 | 11/30/2016 | 12/13/2016 | HuyenPT |

Table ‑: Activity Schedule

## Resource

Specified in the section 5.2. [Project Team](#_Project_team)

## Infrastructure

|  |  |  |  |
| --- | --- | --- | --- |
| Item | Description | Expected Availability by | Note |
| **Development Environment** | | | |
| Operating System | Window 10 (32 bit, 64 bit) | All stages |  |
| Browser | Chrome (50 or above) | All stages |  |
| IDE | Visual Studio 2013 | Development and Testing stage |  |
| **Technology** | | | |
| Development language | C#, HTML, CSS, JavaScript |  |  |
| Development Framework | ASP .net MVC5, Bootstrap |  |  |
| Database | MongoDB | Development and Testing stage |  |
| **Hardware Requirement** | | | |
| Hardware Configuration | 2GB workspaces on server | All stages |  |
| **Equipment & Tools** | | | |
| Source Version Control | GitHub | Development and Testing stage |  |
| Task Tracking | MS Project Professional 2013 | Initiation stage |  |
| Document | Microsoft Office Word 2013, Microsoft Office Excel 2013 | All stage |  |
| Diagram | Microsoft Office Visio 2013,  Astah Professional | All stages |  |
| Mockup | Balsamiq Mockups 3.4.4 | Designing stage |  |
| Design | Brackets | Designing stage |  |

Table ‑: Infrastructure

## Training Plan

|  |  |  |  |
| --- | --- | --- | --- |
| Training Area | Participants | Duration | Waiver Criteria |
| **Technical** | | | |
| ASP .net MVC5 | DangVH  HuyenPT  VanTTC | 1 week | Mandatory |
| JQuery, Knockout | DangVH  HuyenPT | 1 week | Mandatory |
| Bootstrap | YenNTH  HaiCM | 1 week | For design team only |
| **Process** | | | |
| Quality system | All team | 3 hours | If is already trained. |
| Configuration management | All team | 2 hours | If is already trained. |
| Group review process | All team | 2 hours | If is already trained |
| Defect prevention | All team | 2 hours | Mandatory |

Table ‑: Training Plan

## Finance

This project is non-business. It is a Capstone Project at FPT University. Therefore, we do not need to estimate about finance.

# PROJECT ORGANIZATION

## Organization Structure

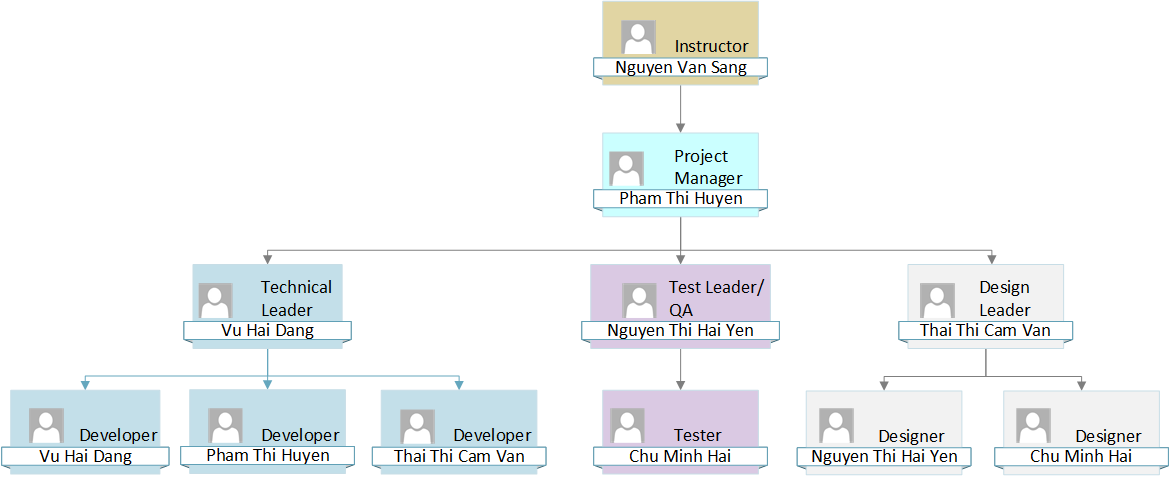


Figure ‑: Organization Structure

## 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  - Report to supervisor | Pham Thi Huyen | 50 | 09/05/2016 | 12/23/2016 |
| PTL | PTL is responsible for the technical project execution | Vu Hai Dang | 50 | 09/05/2016 | 12/23/2016 |
| Programmer #1 | - Study technique  - Coding functions and modules of system  - Peer-review source code of others members | Vu Hai Dang | 50 | 09/05/2016 | 12/23/2016 |
| Programmer #2 | - Support studying technique  - Support coding functions and modules of system. | Pham Thi Huyen | 50 | 09/05/2016 | 12/23/2016 |
| Programmer #3 | - Support studying technique  - Support coding functions and modules of system. | Thai Thi Cam Van | 100 | 10/01/2016 | 12/23/2016 |
| Test Leader | - Create test plan, test case, test report, quality report  - Execute test. | Nguyen Thi Hai Yen | 100 | 10/30/2016 | 12/23/2016 |
| Tester | - Support creating test plan, test case, test report, quality report  - Execute test. | Chu Minh Hai | 100 | 10/30/2016 | 12/23/2016 |
| Design  Leader | - Create prototype  - Review design of others member | Thai Thi Cam Van | 100 | 09/05/2016 | 09/30/2016 |
| Designer #1 | - Support creating prototype  - Design screen | Nguyen Thi Hai Yen | 100 | 09/05/2016 | 10/30/2016 |
| Designer #1 | - Support creating prototype  - Design screen | Chu Minh Hai | 100 | 09/05/2016 | 10/30/2016 |

Table ‑: Project Team description

## External Interfaces

|  |  |  |  |
| --- | --- | --- | --- |
| Department | Contact Person | Address | Responsibility |
| Teacher at FPTU | Nguyen Van Sang | sangnv@fe.edu.vn | - Review and accept documents during project  - Review and accept products of the project.  - Resolve escalated issues, receive project reports. |
| Training Department |  | [acad.hn@fpt.edu.vn](mailto:acad.hn@fpt.edu.vn) | Management course of student |

# 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 | - Discus about project status  - Discus and resolve any open issue, risks, and changes  - Discuss any suggested improvement | PM, Project Team Members |
| Milestone Meetings | Face to face | 2 days after the completion of each stages:  - Initial  - Implement 1  - Implement 2  - Implement 3  - Termination | - Project objective review  - Evaluate project performance (quality, schedule, effort)  - Causal analysis  - Update project plan for next stage | PM, Project Team Members, QA, Supervisor |
| **Supervisor Communication and Reporting:** | | | | |
| Transfer/Sharing of project documentation/information | GitHub | When available | All project documentation and information | PM, Project Team Members |
| Project Report | Agreed FPT Software and FU standard format | Weekly | - Project status report  - Issue requiring clarifications | PM |
| Project Meetings with supervisor | Face to face | 12h45 Wednesday, Weekly | As above | PM, Project Team Members |
| Requirement gathering/clarification | Face to face meeting or by email | During requirement analysis phase | As in Q&A list | PM |
| Review Project Plan & Project schedule | Face to face meeting | Significant changes to WO, PP and Project schedule (scope, objectives Organization, HR, major milestone, deliverables ) |  | PM |
| Project Progress Review | Face to face meeting or by email | Weekly | - Project status report  - Issue requiring clarifications | PM |
| Project Milestone Review | By email and via project milestone review meeting | The end of each phases | - Project objective review  - Evaluate project performance (quality, schedule, effort)  - Causal analysis  - Update project plan for next stage | PM |

Table ‑: Communication and Reporting Plan

# CONFIGURATION MANAGEMENT

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