**Volunteer Management System**

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| ***Project Plan*** |  |
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| **MTECH project Team SE18- 08S** |  |
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| Volunteer Management System  Project Plan |

Version: 1.0

Prepared by: Dio Phung – Project Manager

Date: 23rd March 2011

Signature \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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**Document History**

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**Table of Contents.**

# INTRODUCTION.

The target customer is a poverty elimination NGO. It has grown tremendously over the years and is attracting more and more volunteers both domestically and internationally. As it grows, there is an increasing need to coordinate and manage its volunteers, especially international volunteers as they require more administrative and logistic efforts. The current ways of manually handling documents and volunteers requires a lot of works and limiting the organization efficiency.

From the situational analysis and problems identified, the team proposed an integrated system with the aim of addressing the problems of volunteer communication, documentation, recruitment and retention.

The project serve as the required MTECH project for students in ISS to complete the Master of Technology (Software Engineering) course.

## Purpose.

The purpose of this document is to provide a Project Plan for the work to complete this project to develop the Volunteer Management System for a Non-government Organisation.

## Audience.

The intended readers of this Project Plan are the project team to:

* provide them with a plan for the activities that they are to perform;
* specify the deliverables they are to produce and;
* indicate the required effort and timescales.

## Document struture.

The Project plan consists of these major parts:

* Work Breakdown Structure
* Project Effort Estimation
* Project Schedule and timeline
* Project Deliverables
* Project structure and staffing

## References.

To fully understand the background to this project, the reader should also refer to the project proposal (reference VMS/PROP/).

# PROJECT STRUCTURE AND STAFFING.

Below is the project structure and staffing – each resource will be assigned to a specific role. During the project timeline, they are expected to perform as defined in the role description. However, resource allocation can be modified and additional tasks may be assigned to each resource depends on the project needs.

## Project Manager: Phung Kim Cuong, Dio

Dio will be responsible for managing the project, defining project plan, allocating resources, reviewing progress against the plan and instituting appropriate action.

In addition, he will provide advice to the Project Lead on the structure and content of the deliverable project documents and will be responsible for the production of the required planning documents.

He will be in charge of producing Project Plan and general project management activities.

## Quality Manager: Liu Peishan

She will be responsible for the quality of all project deliverables.

She will be in charge of producing Quality Management plan and auditing all project deliverables to ensure they are conform to the Quality Management plan.

## Team Lead: Zaw Htet

He will be responsible for undertaking the majority of the work described in Section 3. The tasks to be undertaken by him are defined as belows:

* Prototyping development;
* production of System Specification;
* Database define and set-up;
* Production of Algorithm Specification;
* Software coding;
* Testing and installation;
* User training and user trial support;
* Production of user's manual and programmer's manual;

## Development Lead: Feng Yan

Feng Yan will be the lead in development phase, she will work with Zaw for all development activities and in charge of developing major components for the VMS.

## Business Analyst: Hnin Nu Aye (Hazel)

Hazel will work together with Thida in User Requirement gathering and also support Thida in producing URS. She will also be part of the development team and will support Zaw and Feng Yan in VMS development.

## Business Analyst Lead: Thida Khin Myo Thaung

Thida will be in charge of leading the User Requirements gathering and User Requirement Specification activities. She will be in charge of producing the URS.

She will also be part of the development team and will support Zaw and Feng Yan during VMS development phase.

## Test Lead : Jiang Jifa

Jifa will be in charge of leading the testing team – he will also be part of the development team and in charge of producing the Prototype for VMS.

# PROJECT PHASES.

The project will go through 7 phases starting from Planing to final Project Report. In each phase, there will be certain activities to be performed and deliverables to be produced. Each phase will also involve different resources depends on the requirement in that phase– the details of the Volunteer Management System project will be as below:

## Project Planning.

To initiate the project, a formal project plan will be produced (this document). Subsequently, a Quality Assurance plan will be produced. To complete the project initiation tasks, a project filing system will be set-up.

Project Manager, Quality Manager and Business Analyst Lead will be involved in this phase.

## Requirements Analysis.

Due to the nature of the project, one member of the project team will be appointed as the putative customer in this requirement analysis phase. In this stage, the Business Analyst team will perform requirements analysis by:

* + - Working with the putative user to identify the user requirements;
    - Producing a user requirements specification; and
    - Conducting additional research and verification with the putative user to resolve any remaining requirements issues.

Business Analyst Team and putative User Manager will be involved in this phase.

## Analysis and Design.

The next phase will be analysis and design, which will be led by the Technical Lead and the development team. In this phase, the team will:

* + - Produce Use Case Realization Report (Analysis)
    - Produce high level Design Specifications.
    - Produce detailed level Design Specifications.

Team lead and development lead will be involved in this phase.

## Prototype Development.

Based on the high level user requirements specification, a series of prototypes (approximately 3 rounds) will be produced by using HTML pages and wireframe.

Each prototype will be demonstrated to the putative UM (who was appointed by the team) to determine the acceptability of screen layouts, report formats and methods of operation (menus, function keys, etc).

As a result of each prototype demonstration, changes will be agreed to be included in the next prototype. Hence, each prototype builds on the functionality of the previous until it is agreed with the putative UM that the last prototype represents the full detailed requirements for the software to be developed. These requirements will be documented in analysis and design specifications.

The development team will be involved and responsible to produce the prototype of VMS.

## Software Implementation.

When the final prototype has been produced and requirements for the software have been agreed, the software will be implemented by:

* + - producing user manual
    - producing programmer documentation / guide;
    - specifying the algorithms and other detailed processes to be implemented;
    - develop the system;
    - undertaking unit test;

The development team is the owner of this phase.

## Testing

When the development and unit testing of the system are completed, the test team will start the testing phase by:

* + - defining test scripts
    - preparing testing environment
    - performing system test;
    - performing user acceptance test;
    - producing test log;

Project Manager, Quality Manager and the test team will be the owner of this phase.

Notes: There will be no deployment activities as agreed with the putative User Manager.

## Project Report

The final phase of the project will be project reporting phase where the Project Manager, Quality Manager and Project Lead will produce the final project documents including the presentations and reports. These documents will be used during the MTECH presentation.

# WORK BREAKDOWN STRUCTURE

These are the tasks that must be performed to finish the project.

Each task will involve certain resources and the deliverables.

**Project staffing legend**

Project Manager (PM): Dio Quality Manager (QM): Peishan

Team Lead (TL): Zaw Development Lead (DL): Feng Yan

Business Analyst Lead (BAL): Thida Business Analyst (BA): Hazel

Test Lead (TSL): Jifa User Manager - putative (UM): Dio

**Deliverables legend**

Project Management Plan: PMP Quality Plan: QAP

User Requirements Specifications: URS Functional Specification: FS

Use Case Model Survey: UCMS Use Case Realization Report: UCRR

Design Specification: DS Prototyping Study Report: PSR

Test Documentation: TD Project Report: PR

|  |  |  |  |
| --- | --- | --- | --- |
| Phase | Task Name | Resources | Deliverables |
| 1 | **Project Planning** |  |  |
|  | Produce Project Plan | PM | PMP |
|  | Produce Quality Plan | QM | QAP |
|  | Review Plans | PM, UM | PMP, QAP |
|  | Prepare Presentation slides & Audit check | QM, PM, BL | Presentation slides |
| 2 | **Requirement Analysis** |  |  |
|  | Research Requirements | PM, BA,BAL |  |
|  | Undertake Use Case Modeling | BA, BAL |  |
|  | Produce Use Case Model Survey | BA, BAL | UCMS, UCRR |
|  | Review & Finalize Use Case Model Survey | PM, BA, BAL | UCMS, UCRR |
| 3 | **Requirement Specification** |  |  |
|  | Identify Domain Objects/Attributes | BA, BAL |  |
|  | Produce Workflow/Collaboration Diagrams | BA, BAL |  |
|  | Write Use Case Realization Report(Requirement) | BA, BAL | UCRR |
|  | Review & Finalize Use Case Realization Reports | QM, BA, BAL | UCRR |
| 5 | **User Interface Specification** |  |  |
|  | Produce User Interface Specification | TL |  |
|  | Prototype User Interface | TL |  |
|  | Review Prototype | UM, PM |  |
|  | Finalize User Interface Specification |  |  |
| 6 | **Analysis Modeling** |  |  |
|  | Identify Analysis Objects/Ops/Attributes | TL, DL |  |
|  | Produce Class/Collaboration Diagrams | TL, DL |  |
|  | Write Use Case Realization Report(Analysis) | TL, DL | UCRR |
|  | Review & Finalize Use Case Realization Reports | PM, QM, TL | UCRR |
| 7 | **Design Modeling** |  |  |
|  | Adjust objects to implementation architecture | TL, DL |  |
|  | Define Object Associations | TL, DL |  |
|  | Produce Sequence Diagrams | TL, DL |  |
|  | Specify Object Attributes/Operations | TL, DL |  |
|  | Structure Object Model for Implementation | TL, DL |  |
|  | Produce Design Model Report | TL, DL | UCRR |
|  | Review & finalize Design Model Report | TL, DL | UCRR |
| 8 | **Programming** |  |  |
|  | Implement Code Components | TL, DL, DEV | System code |
|  | Peer Review and Unit Test | TL, DL, DEV | System code |
| 9 | **Integration & Installation** |  |  |
|  | Identify Test Approach and Test Plan | PM, TSL, TL | TD |
|  | Review & finalize Integration and Installation Test Plan | PM, TSL, TL | TD |
|  | Identify Test Cases based on Use Cases | TSL, TL |  |
|  | Define and Implement Simulated Test Environment | TL, TSL |  |
|  | Integrate SW Modules | TL, DL |  |
|  | Perform System Test | TSL, TL |  |
|  | Additional Testing | TSL, TL |  |
|  | Stress testing | TSL, TL |  |
|  | Performance Testing | TSL, TL |  |
|  | Analyze Results and Correct Defects | PM, TSL , TL | TD |
| 10 | **User Acceptance Testing** |  |  |
|  | Conduct UAT | UM, TSL, PM |  |
|  | Review Test Results/ Corrective Action | UM, PM |  |
|  | User Sign off | UM |  |
| 11 | **Project Report** |  |  |
|  | Produce Final Project report | PM, QM |  |
|  | Produce User Guide | TL, DL |  |
|  | Produce Project Presentation | PM, QM |  |
|  | Produce Project Audit | QM |  |

# PROJECT EFFORT ESTIMATION

<to be filled in with URS, FPC & COCOMO calculation>

# PROJECT SCHEDULE AND TIMELINE.

The timescales for the activities described in Section 3 using the staff effort specified in Section 4 are given in Figure 5.2. From these timescales, major milestones have been identified, as shown in Figure 5.1.

**Figure 4.1 : Staff Effort Estimates and Progress.**

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Activity Description** | | **Effort (Man-days)** | | | | | | | |
|  | | **PM** | | **QM** | **TL** | **DL** | **BA** | **BAL** | **TSL** |
| **1.** | **Requirements Analysis** | | | | | | | | |
| 1.1 | User Requirement Specification |  |  | |  |  |  |  |  |
| **2.** | **Prototype Development** | | | | | | | | |
| 2.1 | Coding of Prototypes |  |  | |  |  |  |  |  |
| 2.2 | System Specification |  |  | |  |  |  |  |  |
| **3.** | **Software Implementation** | | | | | | | | |
| 3.1 | Data Base Define & Set-Up |  |  | |  |  |  |  |  |
| 3.2 | Algorithm Specification |  |  | |  |  |  |  |  |
| 3.3 | Software Coding |  |  | |  |  |  |  |  |
| 3.4 | Software Enchancement |  |  | |  |  |  |  |  |
| **4.** | **Software Testing** | | | | | | | | |
| 4.1 | Test Planning |  |  | |  |  |  |  |  |
| 4.2 | System Testing |  |  | |  |  |  |  |  |
| **5.** | **User & Programmer Documentation** | | | | | | | | |
| 5.1 | User's Manual |  |  | |  |  |  |  |  |
| 5.2 | Programmer's Manual |  |  | |  |  |  |  |  |
| **6.** | **User Trial** | | | | | | | | |
| 6.1 | Planning |  |  | |  |  |  |  |  |
| 6.2 | Installation |  |  | |  |  |  |  |  |
| 6.3 | User Training |  |  | |  |  |  |  |  |
| 6.4 | Trial |  |  | |  |  |  |  |  |
| 6.5 | Final Changes |  |  | |  |  |  |  |  |
| **7.** | **User Acceptance** | | | | | | | | |
| 7.1 | Acceptance Meeting |  |  | |  |  |  |  |  |
| **8.** | **Management & Administration** | | | | | | | | |
| 8.1 | Project Plan |  |  | |  |  |  |  |  |
| 8.2 | Set-UP Filing System |  |  | |  |  |  |  |  |
| 8.3 | QA Plan |  |  | |  |  |  |  |  |
| 8.4 | General Management & Admin |  |  | |  |  |  |  |  |
|  | **Total** |  |  | |  |  |  |  |  |

**Figure 5.1 : Details of Milestones.**

|  |  |  |  |
| --- | --- | --- | --- |
| **Project Milestone** | | | **Approx. Date** |
| **ACTIVITY 1:** | | **USER REQUIREMENTS** | |
| 1.1. | Issue User Requirement Specification | |  |
| **ACTIVITY 2:** | | **PROTOTYPE DEVELOPMENT** | |
| 2.1. | Complete coding of prototypes | |  |
| 2.2. | Issue System Specification | |  |
| **ACTIVITY 3:** | | **SOFTWARE IMPLEMENTATION** | |
| 3.1. | Design and Set-Up the Data Base | |  |
| 3.2. | Complete Software Coding | |  |
| 3.3. | Complete Software Enhancement | |  |
| **ACTIVITY 4:** | | **SOFTWARE TESTING** | |
| 4.1. | Issue System Test Plan | |  |
| 4.2. | Complete System Testing | |  |
| **ACTIVITY 5:** | | **USER AND PROGRAMMER DOCUMENTATION** | |
| 5.1. | Issue User's Manual | |  |
| 5.2. | Issue Programmer's Manual | |  |
| **ACTIVITY 6:** | | **USER TRIAL** | |
| 6.1. | Issue User Trial Plan | |  |
| 6.2 | Complete System Installation | |  |
| 6.3 | Commence User Training | |  |
| 6.4 | Commence User Trial | |  |
| **ACTIVITY 7:** | | **USER ACCEPTANCE** | |
| 7.1. | Hold Acceptance Meeting | |  |
| **ACTIVITY 8:** | | **MANAGEMENT AND ADMINISTRATION** | |
| 8.1. | Issue Project Plan | |  |
| 8.2. | Issue QA Plan | |  |
| 8.3. | Project End Date | |  |

**Figure 5.2 : Project Timescales.**

# PROJECT DELIVERABLES.

As a result of undertaking the work described in this plan, the following deliverables will be produced by the project.

1. Project Plan.

2. QA Plan.

3. User Requirement Specification.

4. System Specification (Analysis and Design)

5. System Test Plan.

6. System Testing Workfile (incorporating test log and results).

7. User's Manual.

8. Programmer's Manual.

9. Source and Executable Code.

10. Progress Reports.

# RESOURCES.

The supporting resources required to enable the project team to undertake the activities specified in Section 4 (WBS) are described as belows:

## Accommodation.

The development work will be undertaken in the project team's usual office at ISS. No additional office space is required.

## Computer Hardware and Software.

<to be filled in>

## Word Processing.

No additional word processing support from administrative staff is required.

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| Theory and formulae are correct and properly applied. | |  |
| Illustrations are relevant, readable and logically placed. | |  |
| There are no typographical errors. | |  |
| Units are consistent throughout. | |  |
| The security classification is correct. | |  |
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