Software Requirements Specification

for

Volunteer Management System

Version 1.0 approved

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Table of Contents

Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

A successful Volunteer Management System creates great impact on NGO's nature of work. Since it is very much useful for an organization to have necessary future improvements in programs conducted by volunteers, referring the information stored in the database of the system.

1.2 Document Conventions

This Document was created based on the IEEE template for System Requirement Specification Documents.

1.3 Intended Audience and Reading Suggestions

Typical Users, such as

- *Stakeholders, who are associated with NGO (Volunteers, organizers, Managers etc.)*
- *Programmers who are interested in working on the project by further developing it or fix existing bugs.*

1.4 Product Scope

Proposed system aims to solve above problems which will result in better quality as well as efficiency.

1.5 References

http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.606.3321&rep=rep1&type=pdf

2. Overall Description

2.1 Product Perspective

Volunteer management takes an investment of time and energy, and requires systems and processes to ensure volunteers are well supervised and used strategically.

This system will find out the pattern for Volunteers are engaged from the existing set up available data and further get into detailed analysis & summarizing it into useful information. All these available Information will be converted into knowledge about historical patterns and future trends. This system will elaborate about upcoming events, activities and information about the previous events as well.

2.2 Product Functions

1. *Physical meeting with NGO's people for gathering of information and process followed by the NGO to held several activities. Requirements from development's perspective also should be gather to check feasibility.*
2. *Analysis of gathered information.*
3. *Designing of prototype on the basis of analysis done.*
4. *Confirmation of prototype whether it satisfies NGO's requirements or not.*
5. *Actual development of system.*
6. *Testing of the system as per requirements.*
7. *Implementation and deployment of system*
8. *Getting the feedback for future enhancements.*

2.3 User Classes and Characteristics

Typical Users, such as

- *Stakeholders, who are associated with NGO (Volunteers, organizers, Managers etc.)*
- *Programmers who are interested in working on the project by further developing it or fix existing bugs.*

2.4 Operating Environment

- *Platform: Android*

We need to develop a mobile application to implement the topic we have chosen. (Since it is having sub-systems such as gps tracking), since Android is having large number of users.

- *Language:*

Java : Java is widely used language to develop android applications. It is easy to learn, easy to implement and secure.

- *Database:*

Database we are planning to use will be either sqlite(No installation is needed, Zero-configuration) or may be SQL(Used with any DBMS system with any vendor,Integrates with Java).

2.5 Design and Implementation Constraints

VMS is developed in Java, it uses has been built in the Android Studios Platform. It uses a modular design where every feature is wrapped into a separate module and the modules depend on each other through well-written APIs. There are several APIs available to make plugin development easy.

2.6 User Documentation

Not yet listed.

2.7 Assumptions and Dependencies

VMS is developed in Java, it uses has been built in the Android Studios Platform. It uses SQLlite database to store and retrieve a data. Java version 7 is used for the same.

3. External Interface Requirements

3.1 User Interfaces

3.2 Hardware Interfaces

The minimum hardware requirements of VSM are a 500 Megahertz CPU and 128 megabytes of RAM. Also, because VSM uses an OpenGL 3D engine to speed up graph visualization, a compatible graphics card is required.

3.3 Software Interfaces

VMS is developed in Java, it uses has been built in the Android Studios Platform. It uses a modular design where every feature is wrapped into a separate module and the modules depend on each other through well-written APIs. There are several APIs available to make plugin development easy.

3.4 Communications Interfaces

VSM requires an internet connection to install new plugins, update already installed ones and update some of its components (APIs, modules etc.).

4. System Features

4.1 System Feature 1

- *Requirements need to be covered in this iteration:*
    - *A. Assessing organizational needs for volunteers*
    - *B. Ex-volunteers database*
    - *C. Activities database*
- *Procedure:*
    1) *Planning: -*
        a. *planning of required modules →Admin, Volunteers*
    2) *Requirements: -*
        a. *mentioned above specific to this iteration*
    3) *Analysis & Design: -*
        a. *Designing admin and volunteers module*
        b. *Analyzing attributes of database tables (required tables are user table and activities tables) and designing database schema*

4) *Implementation:*
    a. *developing admin, volunteers module*
    b. *implementation of login activity*
    c. *implementation of function →add NGO activity by admin*

→Deployment of Swayam Sevak 1.0
→Testing 1.0
→Evaluation of 1.0
→Based on review.

4.2 System Feature 2

- *Requirements need to be covered in this iteration:*
    A. *Orientation to volunteers about NGO and activities*
    B. *Tracking of activities performed by volunteers*
- *Procedure:*
    1) *Planning: -*
        a. *planning of required functionalities →Activity Detail page, activities and participated volunteers table*
    2) *Requirements: -*
        a. *mentioned above specific to this iteration*
    3) *Analysis & Design: -*
        a. *Designing Activity Detail page*
        b. *Analyzing attributes of Activities-Volunteers table.*
    4) *Implementation:*
        a. *developing Activity Detail page*
        b. *creating Activities-Volunteers table.*
        c. *implementation of function →show activity details, add entry of volunteers with respect to participation in activity*

    →Deployment of Swayam Sevak 2.0
    →Testing 2.0
    →Evaluation of 2.0
    →Based on review

4.3 System Feature 3

- *Requirements need to be covered in this iteration:*
    A. *Analysis of activities held previously*
    B. *Evaluation of volunteer's performance*
- *Procedure:*
    1) *Planning: -*
        a. *planning of required functionalities → Displaying Activity Analysis charts, Individual volunteers participation analysis*
    2) *Requirements: -*
        a. *mentioned above specific to this iteration*
    3) *Analysis & Design: -*
        a. *Designing Show activity summary charts page and show volunteers performance page.*
        b. *Analyzing key attributes to use to create analysis charts.*

4) *Implementation:*
    a. *developing Activity analysis page, Volunteer performance page*
    b. *implementation of function→show activity analysis, show volunteers' performance*

→Deployment of Swayam Sevak 3.0
→Testing 3.0
→Evaluation of 3.0
→Based on review

5. Other Nonfunctional Requirements

5.1 Performance Requirements

The minimum hardware requirements of VSM are a 500 Megahertz CPU and 128 megabytes of RAM. Also, because VSM uses an OpenGL 3D engine to speed up graph visualization, a compatible graphics card is required.

5.2 Safety Requirements

Developers have taken care of database connections for various users hence User just need to logout every time whenever work is done.

5.3 Security Requirements

Developers have taken care of database connections for various users hence User just need to logout every time whenever work is done.

5.4 Software Quality Attributes

VSM provides the users with both simple and advanced features. Due to its well designed and easy to use interface it can be used by both experts and typical users. However, users must already have a basic knowledge of organization work before using it.

6. Other Requirements

Appendix A: Glossary

http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.606.3321&rep=rep1&type=pdf
https://blog.capterra.com/free-volunteer-management-software-options/
https://github.com/systers/vms