SoluTek

The Dennis Hurley Centre Application

System Vision Document

Version 1.0

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1. Introduction

1.1 Document purpose

The purpose of this document is to capture the overall vision for the Dennis Hurley Centre project, this information will help ensure that the project goals are well understood. This document focuses on the needs of the Dennis Hurley Centre and the reasons for such needs. This document provides a detailed description of the project requirements as well as design constraints to give the reader an understanding of the system to be developed. The NGO, VC lecturers as well as the developers of this system will have access to this document. This document will aid in defining boundaries of the system and coming to an agreement on what problems need to be solved.

1.2 Project Scope

The Dennis Hurley system aims to coordinate events and people in hopes to eliminate any confusion and chaos amongst volunteers. The system will help to reach, engage, and retain the volunteers the Centre depends on to achieve their vision for a better world.

1.3 System Goals

* Increase productivity amongst volunteers.
* Make it easier for people to get involved and volunteer.
* Decrease chaos and confusion amongst volunteers.
* Increase efficiency and organization amongst volunteers.

2. Positioning

2.1 Problem Statement

|  |  |
| --- | --- |
| The problem of | Being over budget. |
| Affects | Developers and the NGO. |
| The impact of which is | Developers are unable to complete the project. |
| A successful solution would be | * Finding cheaper alternatives to software. * Precise and strict budget planning. * Considering all possible budget expenses. |

2.2 Product Position Statement

|  |  |
| --- | --- |
| For | Volunteers |
| Who | Volunteer at the Dennis Hurley Centre. |
| The Dennis Hurley Centre system | Is a software project |
| That | Allows for organized planning and efficient communication amongst volunteers. The system minimizes the possibility of mistakes or confusions that may occur amongst volunteers. |
| Unlike | An offline system which is difficult to keep track of. |
| Our product | Is an android application that allows volunteers to have more mobility. |

3. Stakeholder Descriptions

3.1 Stakeholder Summary

|  |  |  |
| --- | --- | --- |
| **Name** | **Description** | **Responsibilities** |
| Dennis Hurley Centre | The users of the product. | Delegate duties to volunteers. |
| Developers | People that program the system. | Identifying the needs of the volunteers and designing an android application to see to those needs. |

3.2 User Environment

* The system compiles and runs on android devices, but with growth it is natural to accommodate other platforms, such as IOS.
* The program will be written in primarily Java and will be interfacing with a real-time database.
* The data will be generated by users and stored server-side.
* All users will be within the same time zone as the one in which the server is located. User locations will be relatively close, in a WAN scenario.

4. Requirements

4.1 Functional Requirements

|  |  |
| --- | --- |
| **Name of attribute** | **Explanation** |
| Development Priority | Order/priority of development. |
| Status | Proposed, approved, incorporated, validated, rejected. |
| Difficulty | Difficulty to implement the requirement. |
| Risk | Probability of adversity (schedule, budget, technical). |
| Stability | Probability whether the requirement will change. |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Features** | **Status** | **Priority** | **Difficulty** | **Risk** | **Stability** |
| A string ID combined with a random number to create a username for volunteers to sign in. | Proposed | High | Med | Low | Low |
| A dashboard for admin(s) to assign volunteers into their designated groups. | Proposed | High | Med | Low | Low |
| A status for volunteers e.g., Awaiting to be assigned, In a group etc. | Proposed | High | Low | Low | Med |
| A dropbox feature for admin(s) to delegate duties to volunteers. | Proposed | Low | High | Med | High |
| A notification system to update volunteers on any changes.  A time feature where volunteers can clock-in and clock-out to keep track of their hours. | Proposed | Med | Med | High | Med |
| A profile for volunteers that includes their registered username, their email, their status, and their designated volunteer group. | Proposed | Med | Med | Med | Med |
| A countdown timer until the next volunteer day. | Proposed | Med | Low | Low | Med |
| A note area for admin(s) to record issues that occurred on volunteer days | Proposed | Low | Med | Low | Med |

4.2 Non-functional requirements

* Authentication - Only authorized users can login to the application.
* Usability - Users can quickly grasp how to use the application.
* Reliability - Minimize the risk of cyber-attacks.
* Speed performance - requests are processed quickly and latency is minimized.
* Scalability - The ability for the application to grow over time.

4.3 Constraints

* Security for the system includes authentication, access control, data integrity, and data privacy.
* Authentication of the user is by identifier and password.
* Only developers can change the state of the system.
* 95% of requirements must work before releasing the application.

4.4 Risks

Possible risks to the success of implementation include, but are not limited to:

* Lack of software development support.
* Server overload.
* Unclear goals of the system.
* Non-user-friendly system.
* New requirements added; end-users insist on new requirements.
* Changing baseline requirements; requirements have been baselined but continue to change.

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