Project No-Kill

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Software Requirements Specification

**1. Introduction**

**1.1 Purpose**

The purpose of this document is to present a detailed description of the No-Kill Project. It will explain the purpose and features of the system, the interfaces of the system, what the system will do, the conditions in which it must operate and how users will interact with the system. This document is intended for both the stakeholders and the developers of the system and will be proposed to the sponsor for their approval.

**1.2 Glossary**

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| **Term** | **Definition** |
| Client | Volunteers at No-Kill Louisville Food Bank |
| Database | Collection of all the information monitored by this system. |
| Field | A cell within a form. |
| Software Requirements Specification | A document that completely describes all of the functions of a proposed system and the constraints under which it must operate. |
| Sponsor | Faculty member overseeing the project. |
| Stakeholder | Any person with an interest in the project who is not a developer. |
| User | Clients of No-Kill Louisville Food Bank |

**1.3 Overview**

This software system will be a Client Management System for a local no-kill shelter’s foodbank. The system will be designed to maximize the volunteers’ productivity by providing tools to assist in automating the client application, intake, and check-in processes, which would otherwise have to be performed manually. The system will streamline the foodbank’s application and intake method which currently involves the use of three different software systems. By increasing the volunteers’ work efficiency, the system will meet the food bank’s needs while remaining easy to understand and use.

**1.4. References**

IEEE. *IEEE Std 830-1998 IEEE Recommended Practice for Software Requirements Specifications.* IEEE Computer Society, 1998.

**2. Overall Description**

The proposed system would allow users to self-check in when they arrive at the food bank, via the website, an app accessed from their phones, or through text messaging. The user’s check-in information would be sent to a tablet in the distribution center where a volunteer will gather the order and deliver it to the user’s car. User applications and attending documentation will be submitted through the website and that information will be added directly into a database. The system will be used to track whether user documentation is up-to-date and attendance details from their recent visits to the food bank.

**2.1 Product Perspective**

The objective of this project is to streamline the working process for the client and users. Our goal is to create a new system for the client to save them time and money each month. Since the food bank is a non-profit organization run by volunteers, our team will need to focus on keeping costs low and designing a system without much of a learning curve.

*2.1.1 System Interfaces*

The system interface will be based on the client’s Wi-Fi, there are currently no plans for the system to require physical interface.

*2.1.2 User Interfaces*

The user interface will consist of a check-in page which can be accessed via a mobile device where user’s can input their name and parking spot number. On the food bank’s end, the check-in interface will need an alert for each check-in, as well as the ability to acknowledge and dismiss. The system will also require a user registration page where name, address, details about the user’s pets, and records can be put in and sent to the database. The user page will also need appointment scheduling capability. The admin page will provide access to all the user information from the database, in addition to the ability to input and edit details about each user. The client will need the ability to create, schedule, and cancel appointments. The client will also be able to record outgoing donations.

*2.1.3 Hardware Interfaces*

The hardware interface for our system will consist of a tablet, and the client’s laptop. The client currently has a laptop and Wi-Fi, a tablet may be donated by the completion of this project.

*2.1.4 Software Interfaces*

The system will be based on Windows OS. There will be a database that requires both read and write access, as well as a front-end for user and client interaction.

*2.1.6 Site Adaptation Requirements*

Since the food bank already has Wi-Fi on site, the necessary site adaptations are minimal. The only adaptations that will need to be made are the addition of a tablet and new signage to alert users of the new check-in procedure.

**2.2 Product Functions**

The highest priority function is a remote check-in system for the user. This would enable the user to communicate their arrival to the client through an interface on their mobile device. The client would receive an alert with that check-in information on the tablet inside the distribution center and would then be able to acknowledge and dismiss the alert. Other product functions will concern user registration information and scheduling. The system requires a user registration form which includes the ability to attach documentation, this information will be saved to a database. The user will also have access to a scheduling page where they can schedule or cancel their next appointment. The client will have access to an admin portal where they can access user information with read and write capability, create or cancel appointments, and record outgoing donations.

**2.3 User Characteristics**

The expectation is that the user will have minimal tech literacy. The user will need the ability to fill in and submit a form through a webpage, send a text message, and possibly scan a QR code. The client is expected to have moderate tech literacy. The client currently uses multiple software systems similar to the proposed product (e.g., Excel, Google Sheets, Acuity).

**2.4 Constraints, Assumptions and Dependencies**

An important constraint for the development team to keep in mind is the non-profit status of the client. To that end, we will need to keep costs for this project and its’ upkeep low. The projected cost of the system will be at or below the current yearly cost of software systems the client uses. The assumption is that the client will continue to have access to the existing Wi-Fi network. The proposed system will depend on the client gaining access to a tablet through a donation or purchase.

**3. Specific requirements**

* 1. **External interface requirements** – The system will have outside access to the database to store and retrieve files
  2. **Functional requirements**

▪ This will ask for your name

▪ This will ask for Spouse/Roommate/Partner

▪ This will ask for alternate pick-up person

▪ This will ask for address, including city, state, zip code

▪ This will ask for email address

▪ This will ask for phone number

▪ This will ask for employment status and Spouse/Roommate/Partner employment status

▪ This will ask if you or Spouse/Roommate/Partner receive Social Security, Medicaid, unemployment, Food stamps, subsidized housing, Disability, Paycheck

▪ This will ask if you have a fenced in yard

▪ This will ask about your animals’ habitat

▪ This will ask how many hours a day is your animal outside

▪ This will ask if you are fostering animals for a rescue org or shelter and their name

▪ This will ask if you are breeding animals

▪ This will ask how many dogs or cats you own

▪ This will ask for names, breed, age, and weight of dog(s)

▪ This will ask if your animal has been spayed or neutered

▪ This will ask for age and name of cat(s)

▪ This will ask for special food requests

▪ This will ask for new applicants to forward copies of Proof of Income and spay/neuter paperwork

* 1. **Design constraints** 
     1. *Standards Compliance*- getting the establishments Google phone number to integrate with other software could be problematic.
  2. **Logical database requirement**

▪ Personal information along with financial and health, size, and number of animals will be used to decide a person’s status as a customer.

▪ The database will be used every day the shelter is open and accessible through the tablets for volunteers.

▪ The amount given to customers along with their information will be used in graphs and financial documents to apply for grants.

* 1. **Software System attributes** 
     1. *Reliability* – the website with customer input will be ready with information saved to the database. This will allow easier operations when the customer checks-in on arrival
     2. *Availability*-the program will be user friendly and available even for the most novice user
     3. *Security*- Admin will have write/delete access to all information but entry level and intermediate volunteers will not be able to read the data.
     4. *Maintainability*- The system will contain at least 2 tablets and a database. They will work on WIFI so if any cease to work they should be easily replaceable. Software will be easily readable so additions can be added in the future.
     5. *Portability*- the software would be easily moveable between devices through an app that’s downloaded. The database will be in the cloud for easy access.