Software Engineering

Programmer Manual

No Kill Louisville: CRM System

Capstone II Spring 2025

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Vision Statement

Pawsitive Impact's CRM web app assists No Kill Louisville in better management of recipient and inventory data. Integrating with and improving upon their current system, we enhance efficiency in their workflow, optimize resource distribution, and support their mission to provide care/help for pets in need.

Introduction

The inventory/CRM system is built with No Kill Louisville in mind. Allowing NKL to keep inventory and recipient information in one place, this system enhances organization, allows for better time management, and improved record keeping.

Component Overview

- Frontend
  - UI – The user interface for the web app seen by the user in the web browser.
- Backend
  - Razor Pages – Individual webpages that include all their functionality and visuals (MudBlazor Components).
  - Database – SQLite database that holds all the data input to the inventory and CRM system (recipient and volunteer information).

Tool Overview

- C# - The primary programming language for the backend and frontend.

- HTML – The primary language used for the UI of the project.

- CSS – The primary language that creates the styling for some of the HTML elements.

- EF Core – The object relational mapper used to interact with the database using C#.

- SQLite – The type of database chosen for the project. All in 1 file and library, no server needed.

- .NET 8 – The platform, runtime, and framework used for the project.

- Blazor – The frontend web framework the project is built on.

- MudBlazor - The library used for the majority of the UI in the project excluding any forms used.

Project Repository

a. Software

https://github.com/kaylynmcgehee/NoKillLouisville-CRM-System-Capstone24-25

b. Test Cases

Our tests and test cases can be found in our 'tests' folder.

c. Documentation

Our documentation can be found in our 'documents' folder.

d. Test platform description

The frontend and backend was tested manually by group members and classmates.

e. Test scripts

Our test scripts can be found in our 'tests' folder.

Installation for New Install

Instructions for installation on a new install are located on the README.

Installation for New Platform

Instructions for installation on a new platform are located on the README.

Further Development Statement

One thing that could be added to the CRM system would be to get it to a point where recipients could scan their own QR code rather than a volunteer. The way it is currently set up, there still needs to be a volunteer outside scanning people in. NKL would like it to be where all volunteers stay inside and don't have to worry about the weather conditions.