MediStore Manager

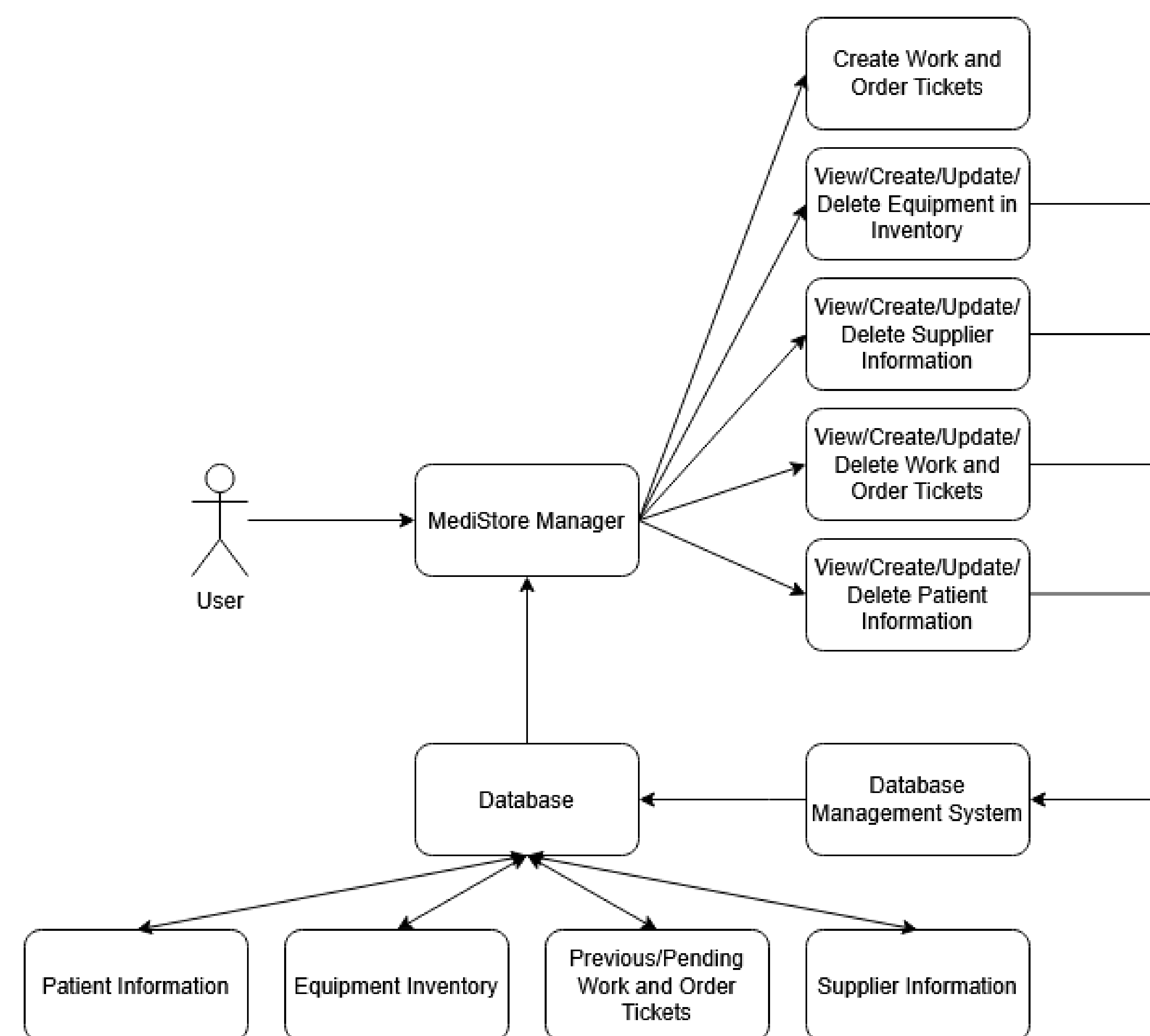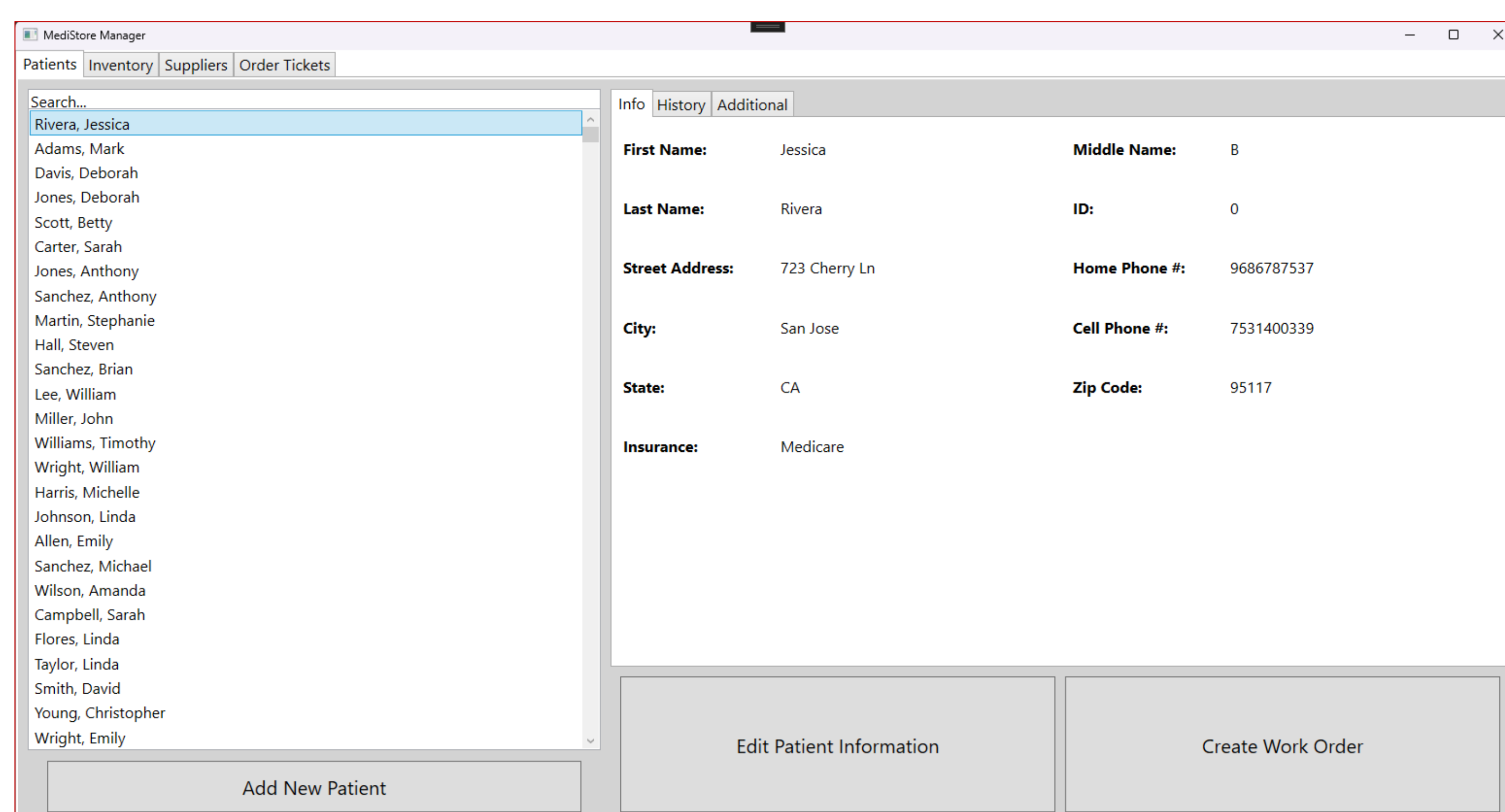**Jackson Rodgers** (CS)

Kevin Sherman (CS)

Seokki Lee (Advisor)

Problem Statement

During the fall semester in 2020, Kevin co-op'd at a local medical supply store named Accucare Home Medical Equipment. The software the store used for managing customers, inventory, and work tickets was old and was a regular source of headaches for the staff. It contained all the necessary functions but was lacking in quality-of-life features and was unintuitive to use.

Solution

Develop a more user-friendly software that can be used to manage a medical supply store. It is an open source and free software so that it is accessible to any medical supply store that needs it.

System Overview

The user interface was designed using Microsoft WPF, with the logic for the functionality being written in C#. The database is stored in MySQL and is connected to the application using the MySql.Data NuGet package. The application has different tabs for Patients, Inventory, Suppliers, and Orders. Each one allows the user to view and update existing data as well as create new data as needed. Work orders and supply orders can be created to keep track of various store operations.

Challenges

- Learning WPF - Neither team member had prior experience in designing a user interface.
- Database Design - A significant amount of time and effort was dedicated to creating an efficient and robust database design.
- Populating Test Data - Being unable to find public sources of data that matched our needs, we used DeepSeek to help generate test data to populate our database.

Features

- User accounts with variable levels of access.
- Connection to a MySQL database.
- Search functions to find an existing patient, inventory item, supplier, or order ticket.
- Creation of order tickets for inventory.
- Updates inventory stock based on created work and supply orders.
- Creation of work tickets for jobs performed by staff.

Future Work

Some improvements that can still be made to the application include:
- Application support for additional OS's
- Database analytics tools

Technologies Used