

DataVisual Innovators



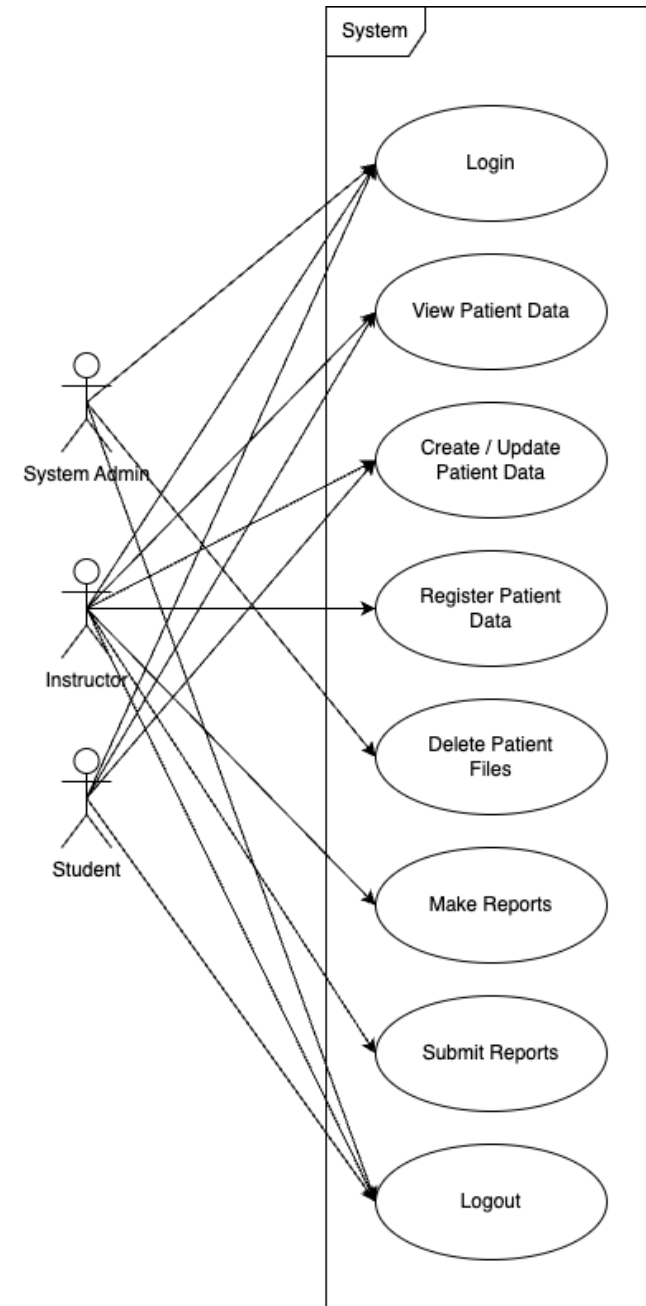
# CRSC Simulation Hospital

# Brief Description of the Project

- UND's School of Nursing & Professional Disciplines requested the aid in designing an EPIC chart simulator.
- Upgrade user experience and address key issues and flaws with current google docs solution
- Plan out a course of action with use case diagram and class diagram
- Implement demo application with 5 interfaces for user to test

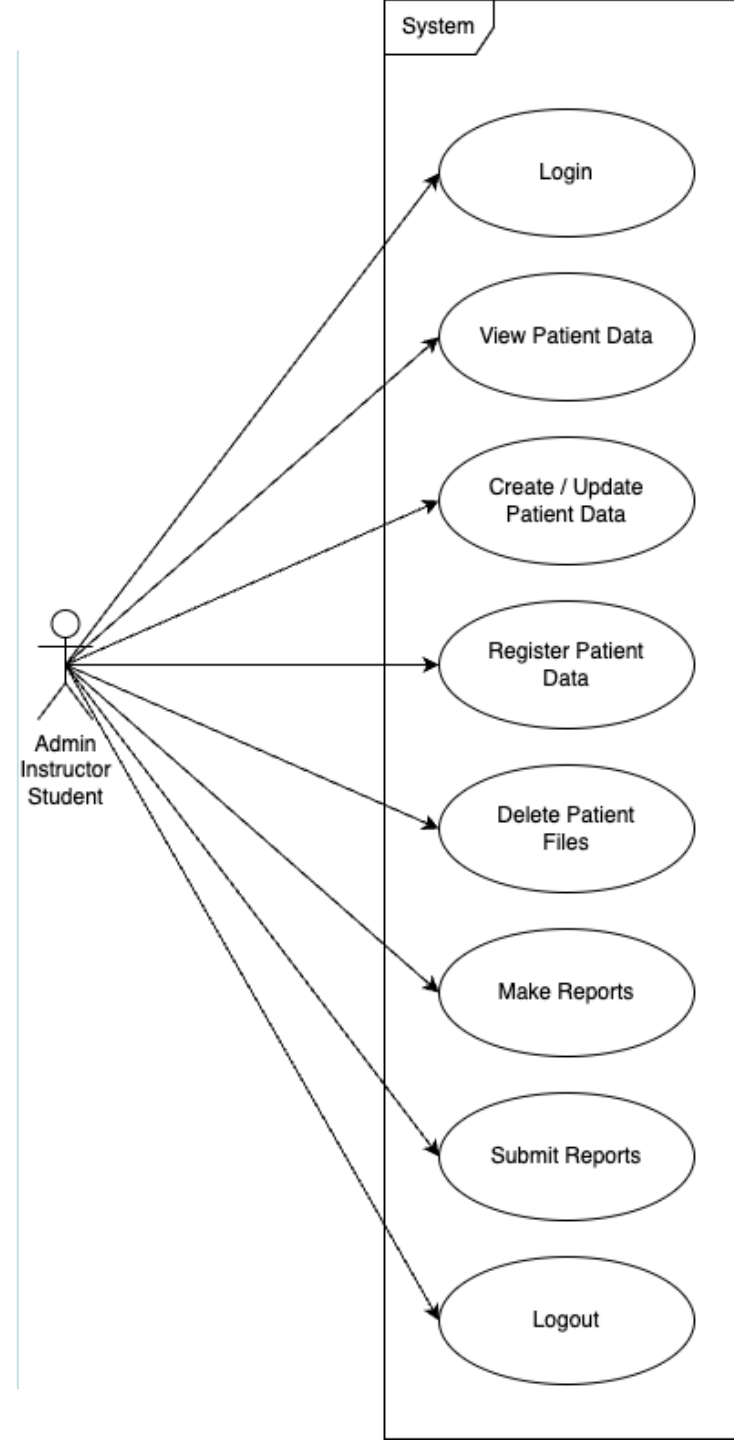
# Use Case Diagram

- Contains three users system admin, the instructor and the student



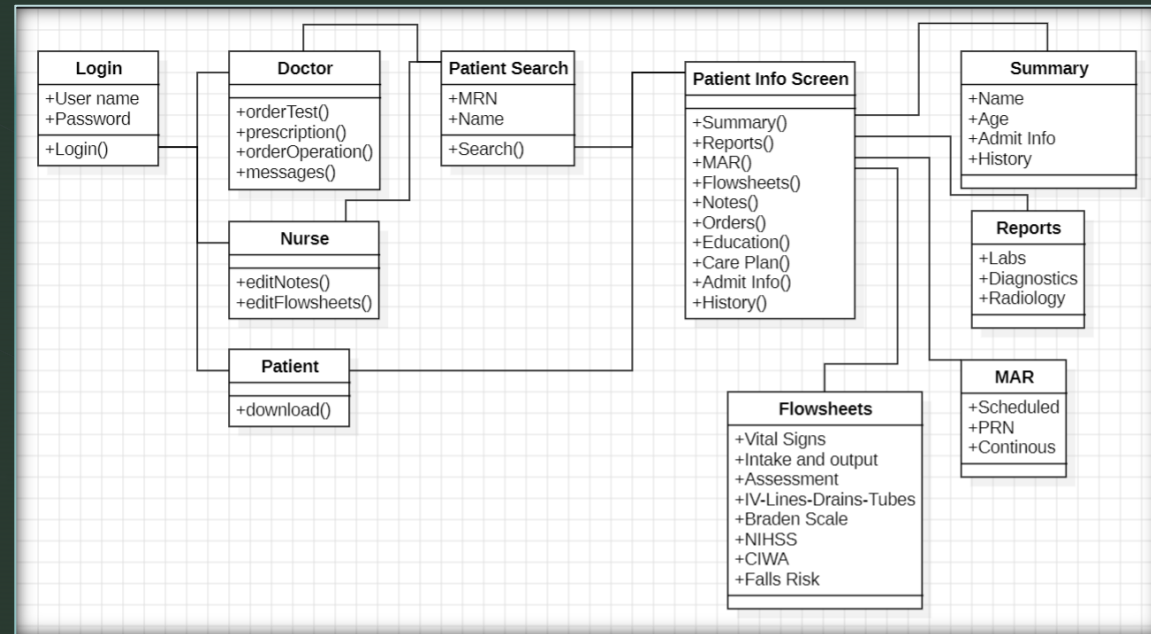
# Realistic Use Case Diagram

- Application does not yet support the functionality of hiding and managing users properly



# Class Diagram

- Class diagram contains a real-world perspective on the use of this application





# Guidelines and Deliverables

- Looking to keep things simple and not over encumber the user with too much data or graphics
- Design was to have simple color schemes
- Ensure the user felt like the application was responsive
- Try to provide a better solution to the old system
  - AKA (DataVisual Pro; An ETUECCAMS)
    - EasyToUseEpicChartCreatorAndManipuatorSystem

# Problems

- Design and Development
  - There have been 5 iterations of the program each version with its own flaws, too ambitious, too many bugs, a complete redesign etc.
  - Solutions included sticking to one plan and just keep improving where possible
- Learning a new system
  - C# seems intuitive and easy but different enough to cause challenges
  - Development of a windows application on a Mac is not an easy task
- Group Communication
  - A lack of communication made issues with delegating tasks or managing project goals and overall project orientation which resulted in an unfair task load.

# Interface Design: Login Window

DataVisual Pro 0.5.0 - Login Window



UNIVERSITY OF  
NORTH DAKOTA

COLLEGE OF NURSING & PROFESSIONAL DISCIPLINES

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CRSC Simulation Hospital

Username

Password

Login



# Interface Design: Admit Info Window

DataVisual Pro 0.5.0 - Main Window

Summary Reports MAR Flowsheets Notes Orders Education Care Plan Logout

Admission Info History

MRN  
 Load Save

First M.I. Last DOB Age  
   Select a c 15

Sex Height Weight  
☐ Male ☐ Female ☒ Not Specified  in  lb

Provider Diagnosis

Allergies

Code Status  
☐ Full ☐ DNR ☐ DNI

Isolation  
☐ Standard Precautions  
☐ Contact Precautions  
☐ Airborne Precautions  
☐ Droplet Precautions

# Interface Design: History Window

The screenshot displays the 'DataVisual Pro 0.5.0 - Main Window' interface. At the top, a blue header bar contains a series of tabs: 'Summary', 'Reports', 'MAR', 'Flowsheets', 'Notes', 'Orders', 'Education', and 'Care Plan'. A 'Logout' button is positioned on the right side of this header. Below the header, a sub-menu bar includes 'Admission Info' and 'History', with 'History' currently selected. The main content area is divided into four sections, each with a title and a large text input field, followed by an 'Edit' button on the right:

- History of Present Illness**: A large text input field for recording the current illness history.
- Previous Medical History**: A large text input field for recording past medical conditions.
- Surgical History**: A large text input field for recording past surgical procedures.
- Family Health History**: A large text input field for recording the health history of the patient's family.

# Interface Design: Diagnostics Window

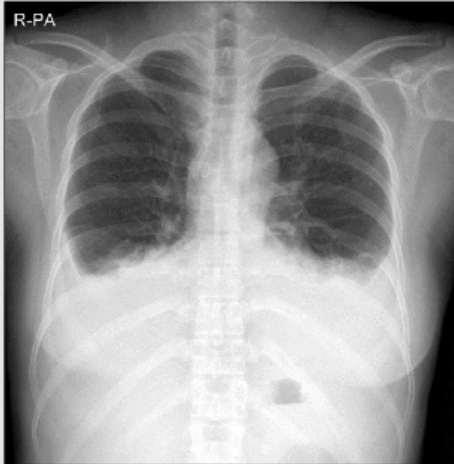
DataVisual Pro 0.5.0 - Main Window

Summary Reports MAR Flowsheets Notes Orders Education Care Plan Logout

Labs Diagnostics Radiology

Date Ordered 11/28/2023 19:45:24 Date Resulted 11/28/2023 20:09:24

R-PA



Findings

A single AP view of the chest demonstrates increasing bibasilar interstitial opacities with decreased overall aeration. Increasing bibasilar atelectasis with development of bilateral pleural effusions. \*\*\* END OF REPORT \*\*\*

# Interface Design: Vital Signs Window

DataVisual Pro 0.5.0 - Main Window

Summary Reports MAR Flowsheets Notes Orders Education Care Plan Logout

Vital Signs Intake and Output Assessment IV's/Lines/Drains/Tubes Braden Scale NIHSS CIWA Falls Risk

Date Time RN Initials  
11/29/2023 11:43:23 RN

Temperature Route  
F

Heart Rate Method Location

Respirations Quality Oxygen Device O2 (L/min) SP02  
Yes No

Blood Pressure  
Systolic Diastolic Location

Comments

# Interface Design: Notes Window

