COVID Resource Management System

Features of the Application

Our application will be a management system that will let hospitals add information about the availability of Beds, Oxygen Cylinders, Oxygen Concentrators, Vaccines, Ventilators and Oximeters available.

Hospitals can also add more specific information about available resources - like the number of beds that have attached oxygen cylinders, the capacity of each oxygen cylinder available and whether the cylinder is portable, the Oxygen Flow, Concentration capacity of available Oxygen Concentrators, the type of vaccines that are available (Covaxin/Covishield, First/Second Dose), the type of pressure ventilation and tidal volume of ventilators available, SPO2 range and SPO2 accuracy of the available oximeters.

The information added by the hospitals will be made available for the users of the application. In order to claim a resource that is available, users can call a phone number provided by the hospital.

Additionally, there will be a dashboard to view the number of patients admitted due to COVID, number of active cases, the average age of patients, and number of people discharged by that hospital on that day.

Technical Stack

Swing: We are currently considering using Swing to create a GUI for our system since it seems to be beginner-friendly.

MongoDB: If we have the time, we would like to integrate our application with a no-SQL database called “MongoDB.”

Git: We are planning to use Git for version control, since we think it will be useful for us in the future.

Review
When the number of arguments depends on user input, polymorphism (driver file) removes the need for driver function. Identify the parts of the application that would require each OOPS concept
=> draw class diagram, upload Exercise0