





Problem Statement

- → No proper student immunization tracking application
- → Student Teacher ratio, to be able to give specific attention to the students
- → System to send timely alerts to Students about their next vaccination date



App Features

- → Interactive Application
- → Students Name, Age
- → Parents Name, Address, Phone
- → GUI and CSV Files input
- → Track annual student registration renewal
- → Track Student immunization anniversaries
- → Assign Students to Teachers according to state regulations and age of the student
- → Track annual employee review

Project Overview

About Application

Details regarding Students, Teachers and Immunization can be recorded and tracked once an administrator logs in the daycare application.



Pattern used

The project follows Factory Design and MVC pattern

Alerts for overdue vaccinations are also generated by the system

CSV File/ GUI input

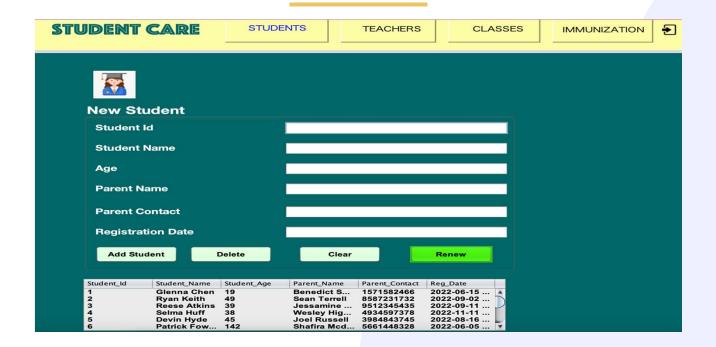
Details are being recorded and they can be accessed by reading a CSV File or GUI input

Tech Stack Design Patterns Model View **Programming Language and** Controller Design Software Pattern, Factory Java, Eclipse IDE and Design Pattern, NetBeans Streams **Front And Backend** Java Swing, Java Spring **Database** Boot H₂ Embedded Database **Build Tool** Maven

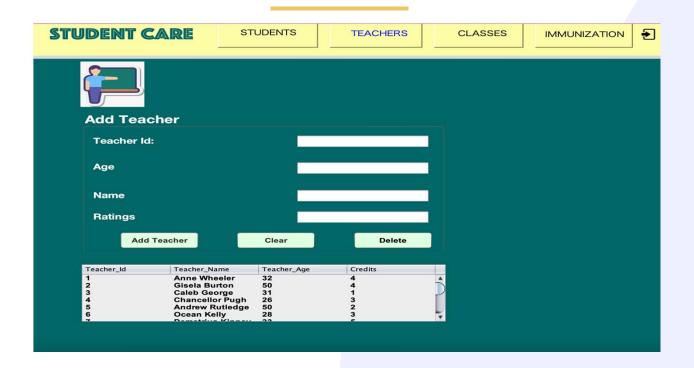
ScreenShots



ScreenShots



ScreenShots



Learning Outcome

We learnt the following things while implementing this project



Object Oriented Concepts: Inheritance, Abstraction, Polymorphism, Encapsulation

MVC and Factory Data Patterns





For Backend- Spring Boot For FrontEnd- Swing CRUD Operations and H2 Database Parsing entity information from CSV Files

Future Enhancements



- Multiple roles like Parents Login, Teacher Login etc can be added.
- Application can be made more interactive using technologies like React/Angular.
- Application can be deployed on cloud for better scalability.
- Can be made more scalable by connecting multiple daycares from different geographical regions.

