SDD (Project detailed documentation)

- **Project Title:** VaxScheduler

- **Overview of the project :**

Project called "VaxScheduler" (Vaccination Scheduling Platform), is an online platform designed to streamline and simplify the process of scheduling and managing vaccination appointments. The platform aims to provide a user-friendly interface for individuals to schedule their vaccinations particularly during public health crises such as pandemics.

Key features of VaxScheduler may include:- Appointment Booking Online ,Vaccine Availability Tracking , Priority Scheduling , Reporting and Analytics……etc.

Overall, VaxScheduler aims to optimize the vaccination process, enhance access to vaccines, and contribute to public health efforts by efficiently managing vaccination appointments and resources.

●Functional Requirements :-

-User Registration and Authentication :- Users should be able to register for an account on the platform and log in securely using their credentials.

- View Available Vaccination Centers :- Users should be able to view a list of available vaccination centers , center location, and available vaccines.

-Receive Confirmation and Reminders :- Users should receive confirmation of their appointment via email or SMS prior to their scheduled appointment to reduce no-shows.

- Modify or Cancel Appointment :- Users should have the ability to modify or cancel their scheduled vaccination appointments.

●Non-Functional Requirements :-

- Security :-The website should use encryption techniques to ensure the security of user data and access to user information should be restricted to authorized personnel only.

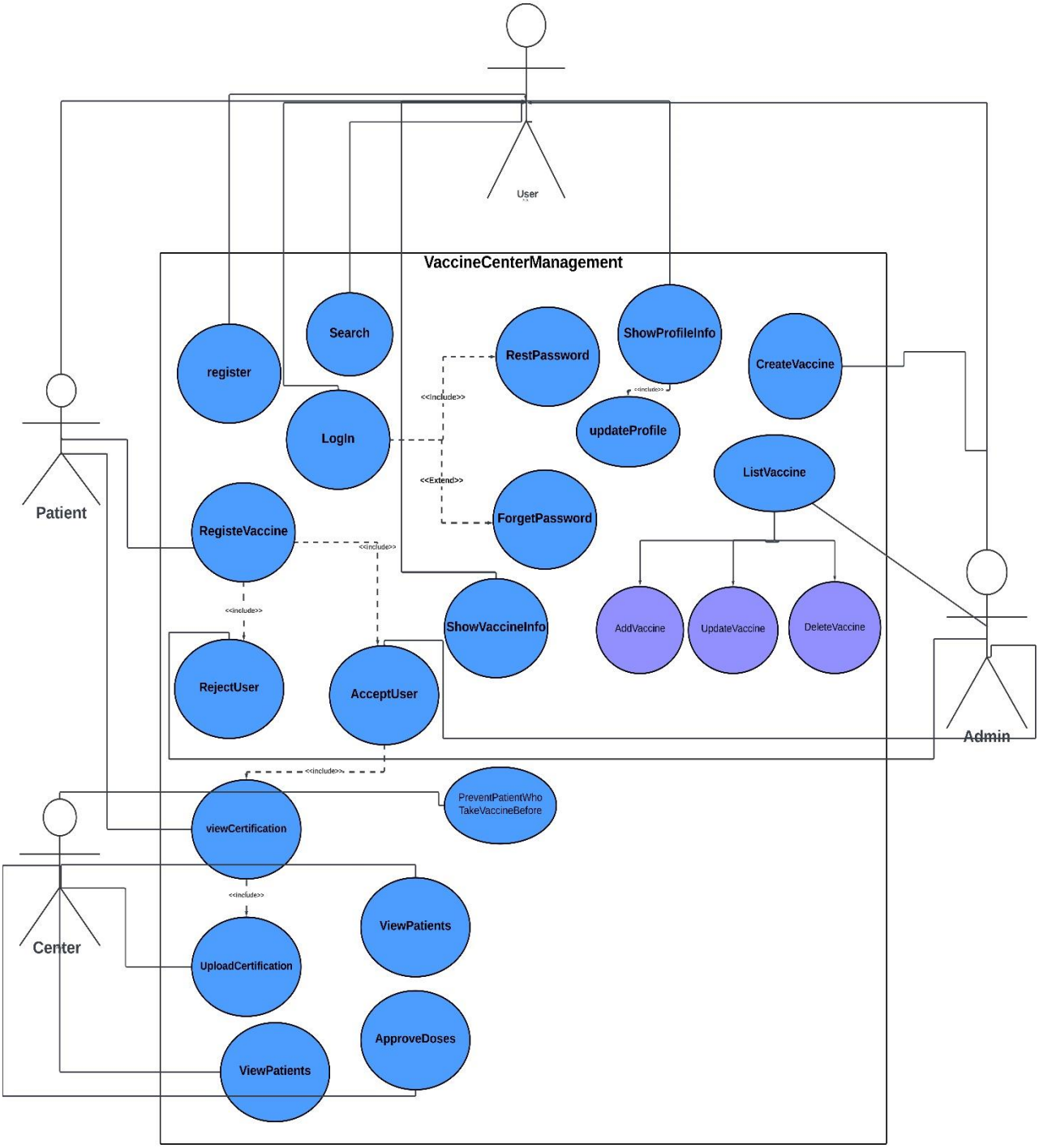
- Performance :- The website should be responsive and should be able to handle a large number of concurrent users during peak times without significant degradation in performance.

- Reliability :- The platform should be highly available , and should have backup to prevent data loss in case of system failures.

- Scalability :- The website should be able to scale horizontally to accommodate an increasing number of users and vaccination centers.

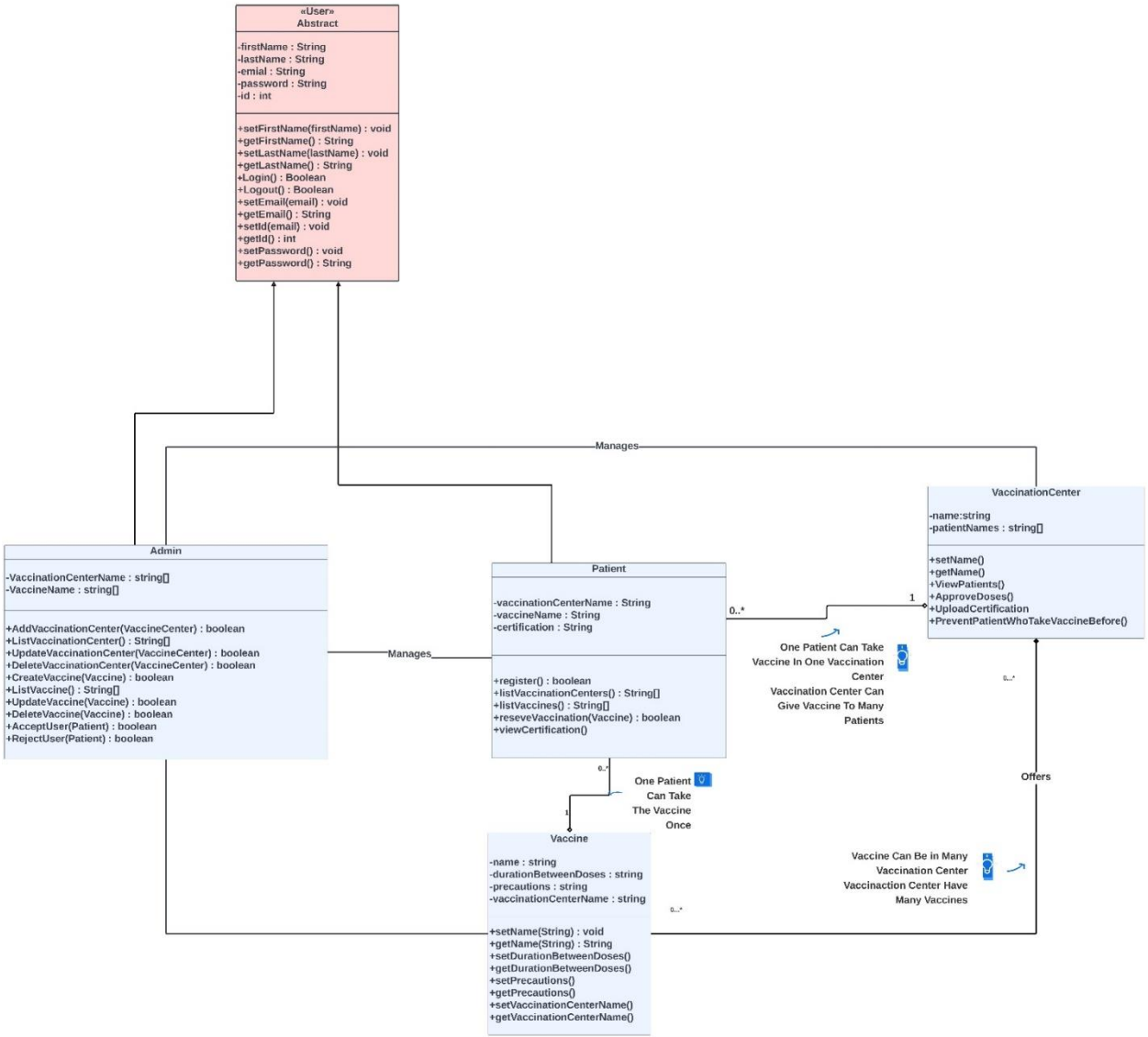
- Accessibility :- The website should be accessible to users with disabilities, following accessibility guidelines such as WCAG (Web Content Accessibility Guidelines).

●Use Case & Use Case description

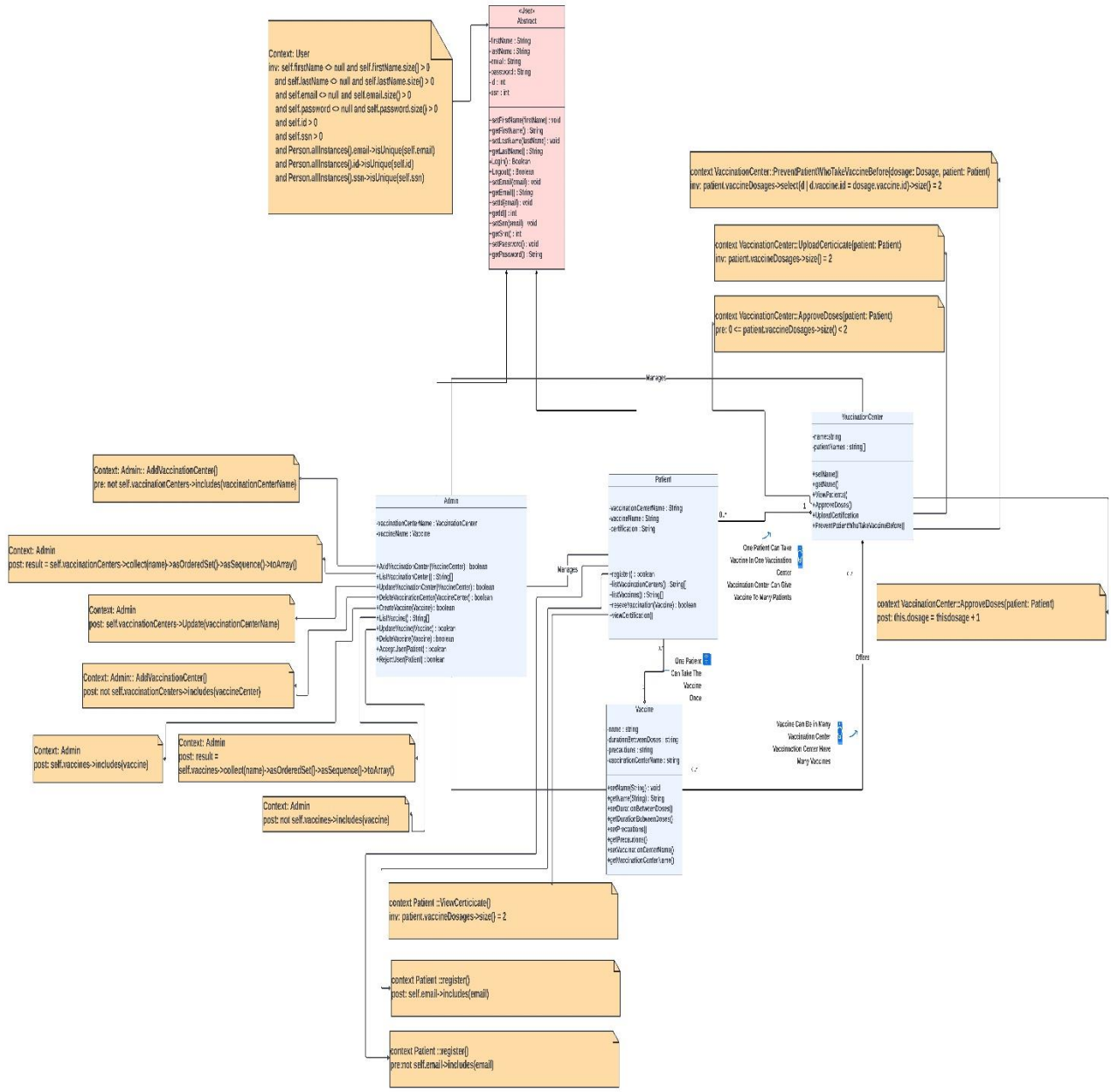


Use case	Brief use case description
Register and Login	Patients register by providing required information, such as username and password, which is validated and stored securely in the system; subsequently, they can log in using their credentials to access the application's features.
Search	Users input search queries into the application, which then retrieves relevant data from the database and presents it to the user based on matching criteria.
Forget Password	Users provide their email address, receiving a reset link via email, and setting a new password upon verification.
view Certification	Patients access their certification records by logging into the platform and navigating to the certification section, where they can view details such as certification name, and date of completion.
Add Vaccine	Administrators add new Vaccines to the system by logging into the admin panel, entering Vaccine details such as name, description, and quantity, and submitting the information for database storage.
Delete Vaccine	Administrators logging into the admin panel, selecting "Delete Vaccine" and confirming the deletion action to remove it from the database.
View Patients	Admin center access patient records by logging into the admin panel, navigating to the patient management section, and viewing details such as patient medical history, and age.
Upload Certification	Admin center logging into the admin panel, selecting the patient's profile, uploading the certification document, and associating it with the patient's record
Show Profile Info	Users access their profile information by logging into the system, going to the profile section, and viewing details or updating their information.
Accept User or rejected	Administrators review user registration requests, either approving or rejecting them based on provided information, with notifications sent to users regarding their status.
Approve Doses	Admin center logging into the admin panel, reviewing pending dose requests, verifying the information, and approving or rejecting the doses accordingly.

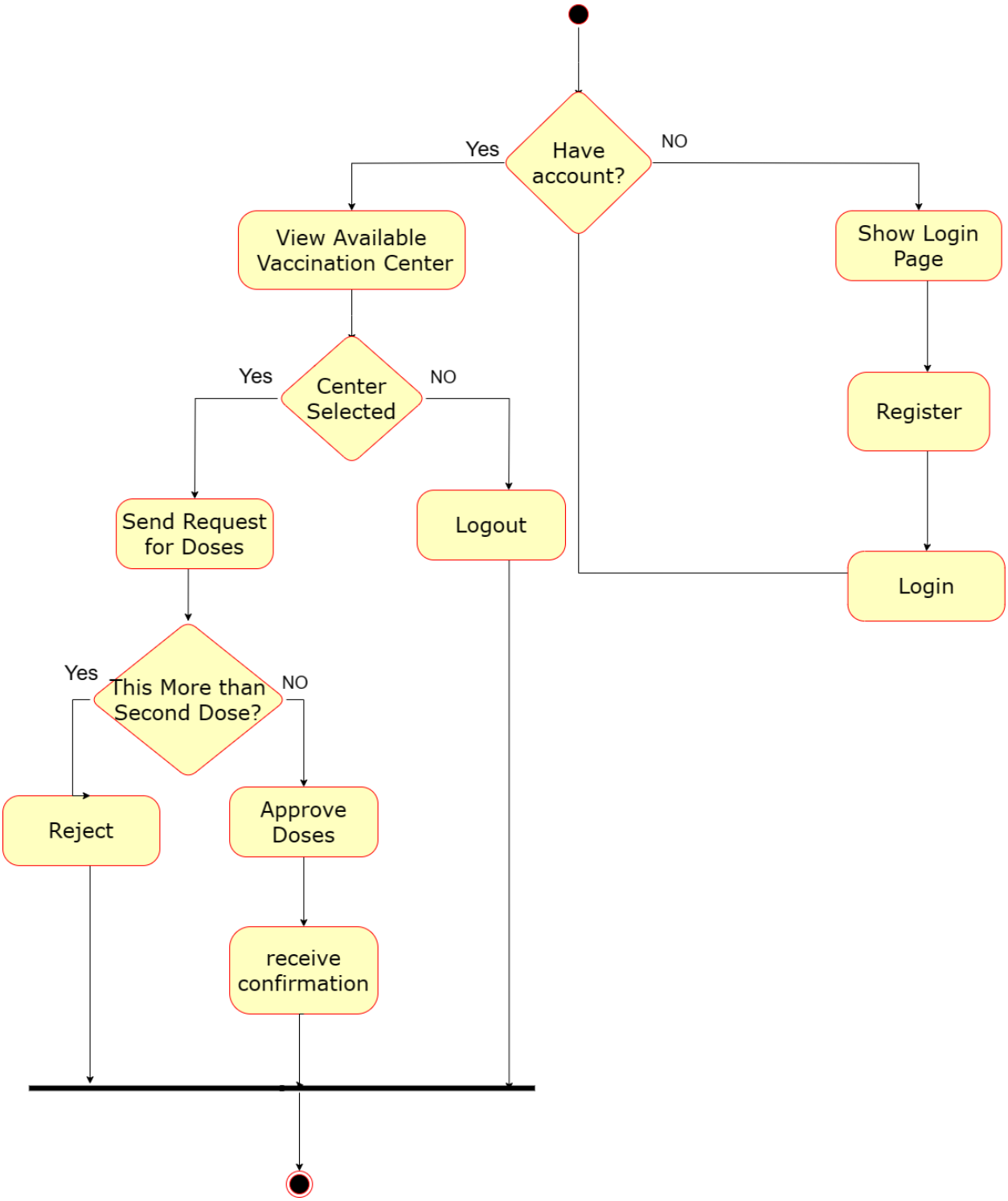
●Class Diagram



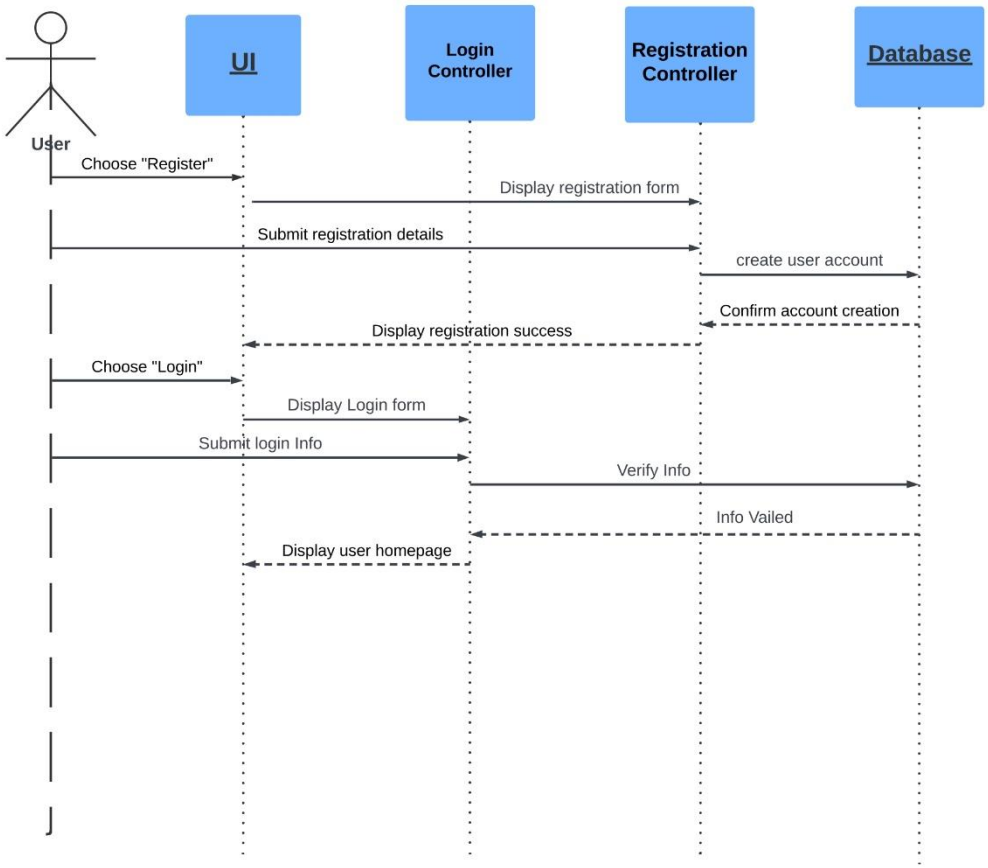
●OCL With Class Diagram



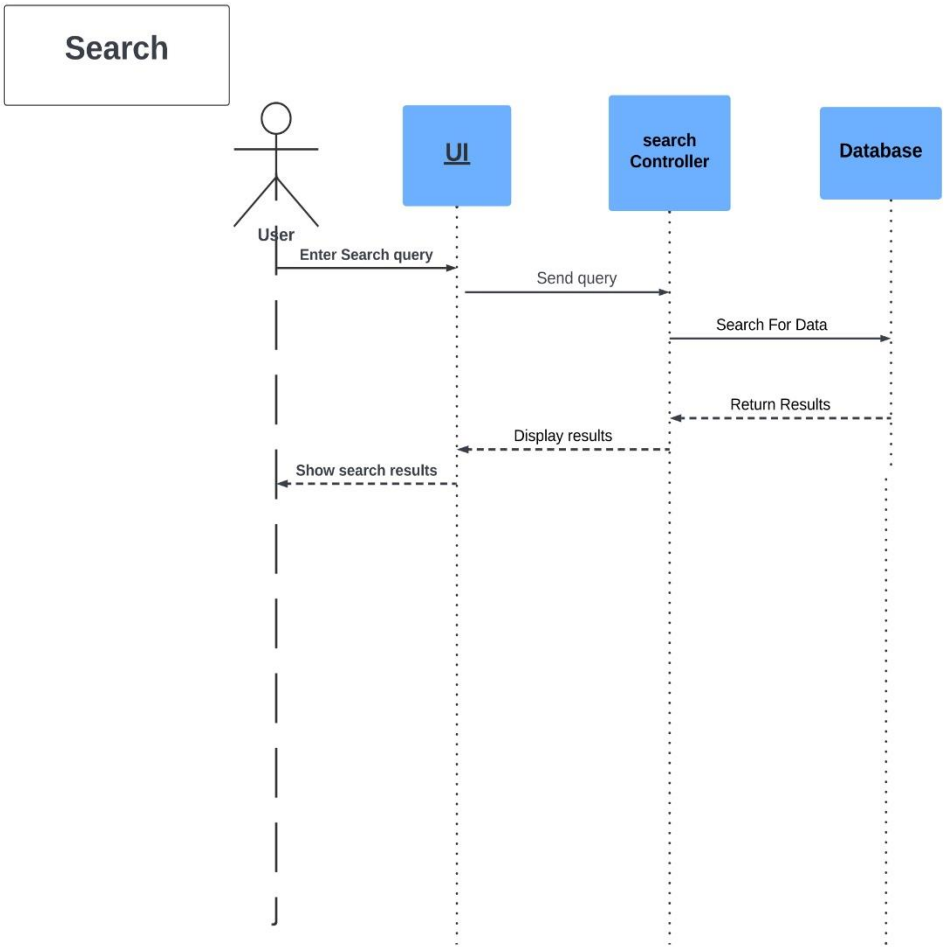
●Activity Diagram



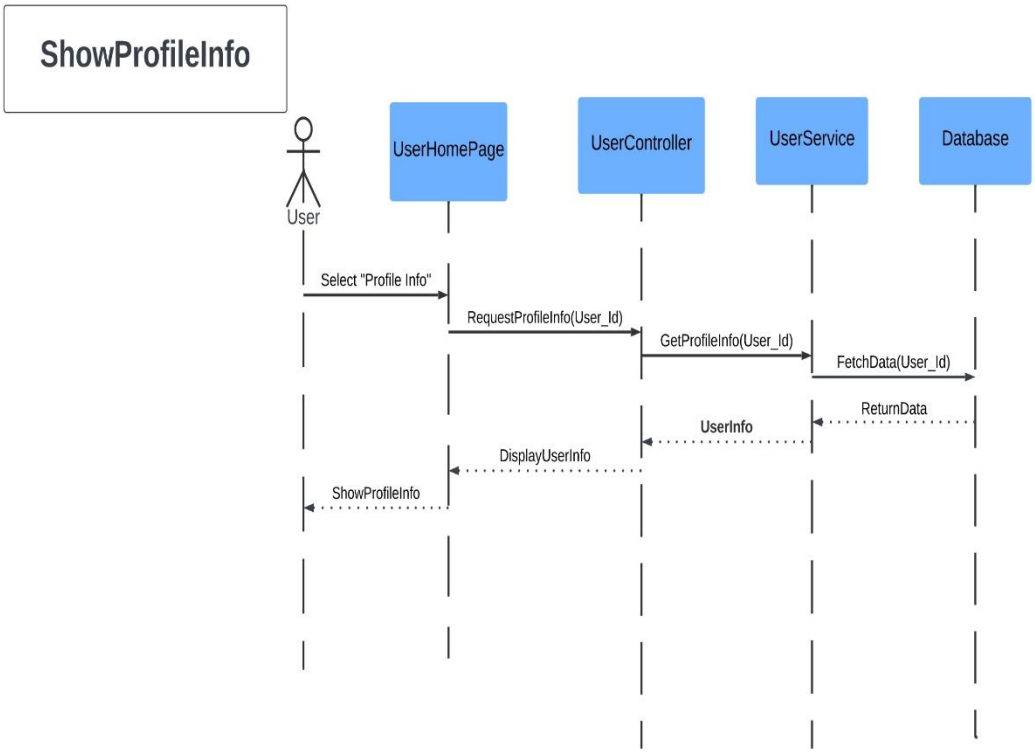
●Sequence diagram Login



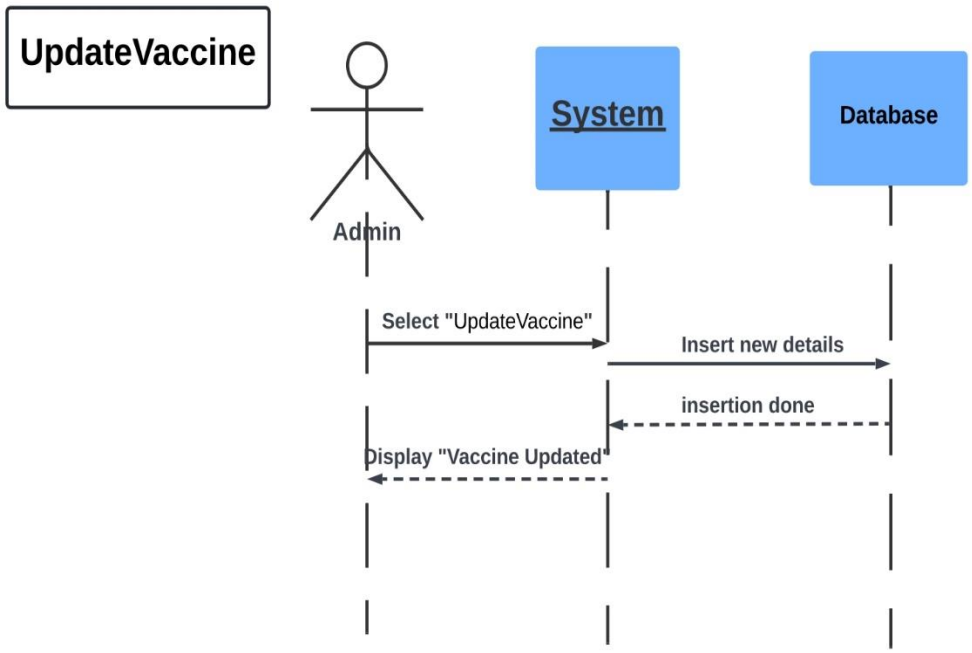
●Sequence diagram Search



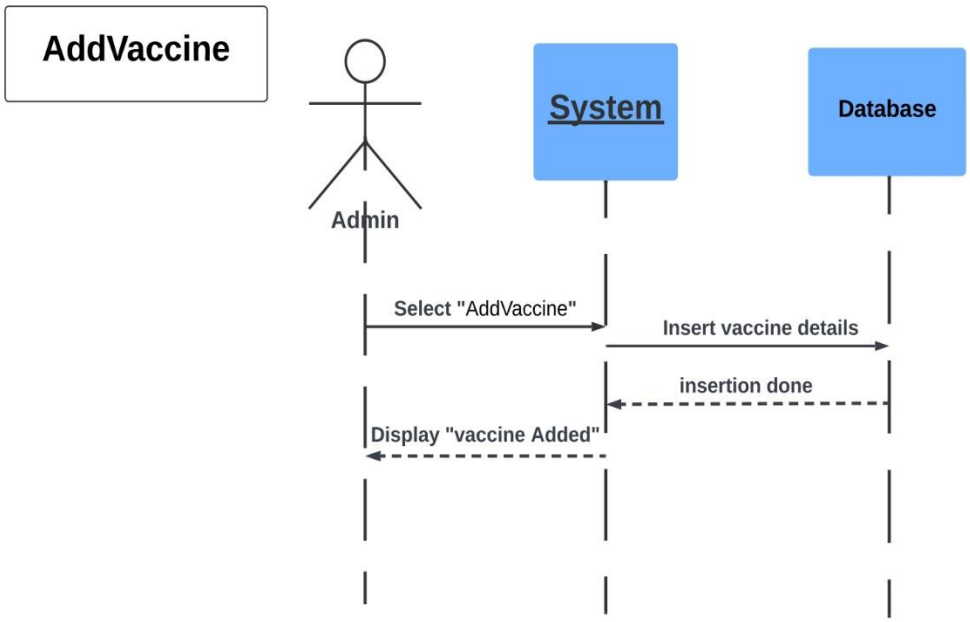
●Sequence diagram Show_Profile_Info



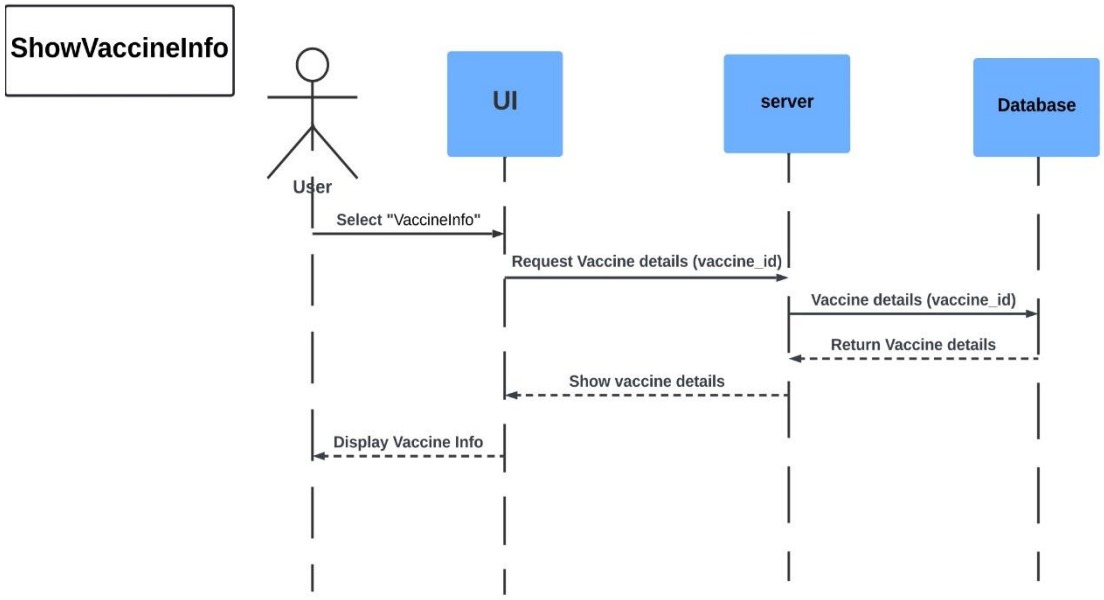
●Sequence diagram Update_Vaccine



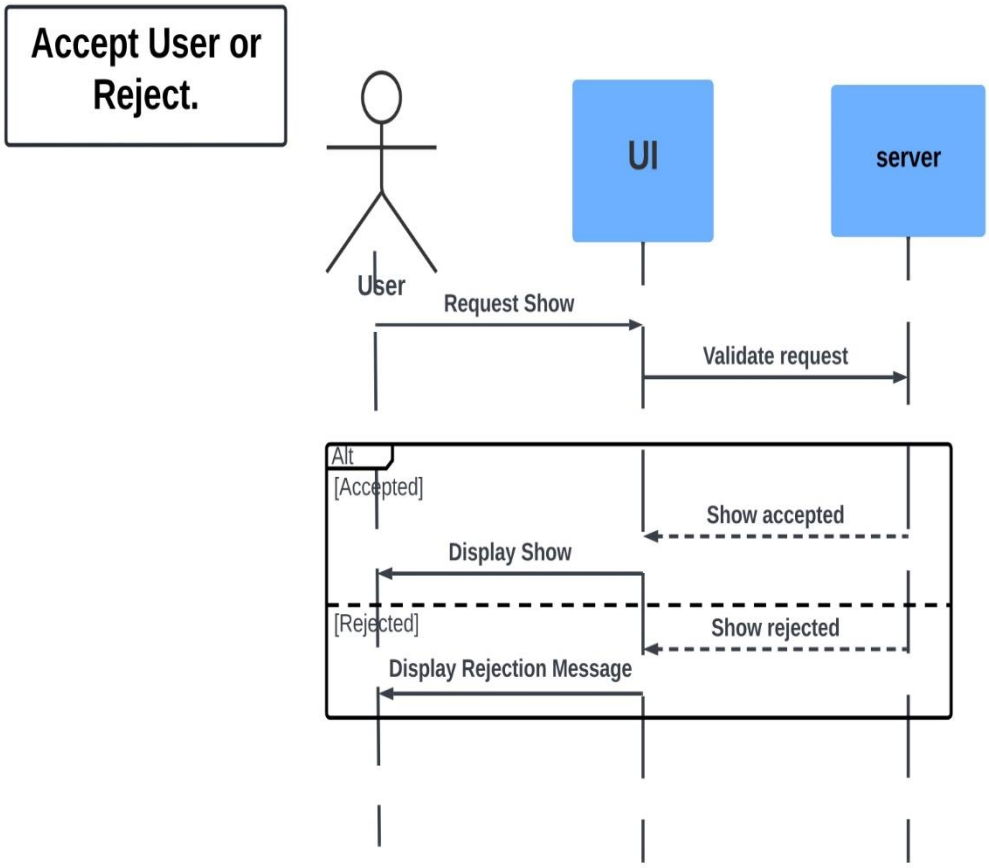
●Sequence diagram Add_Vaccine



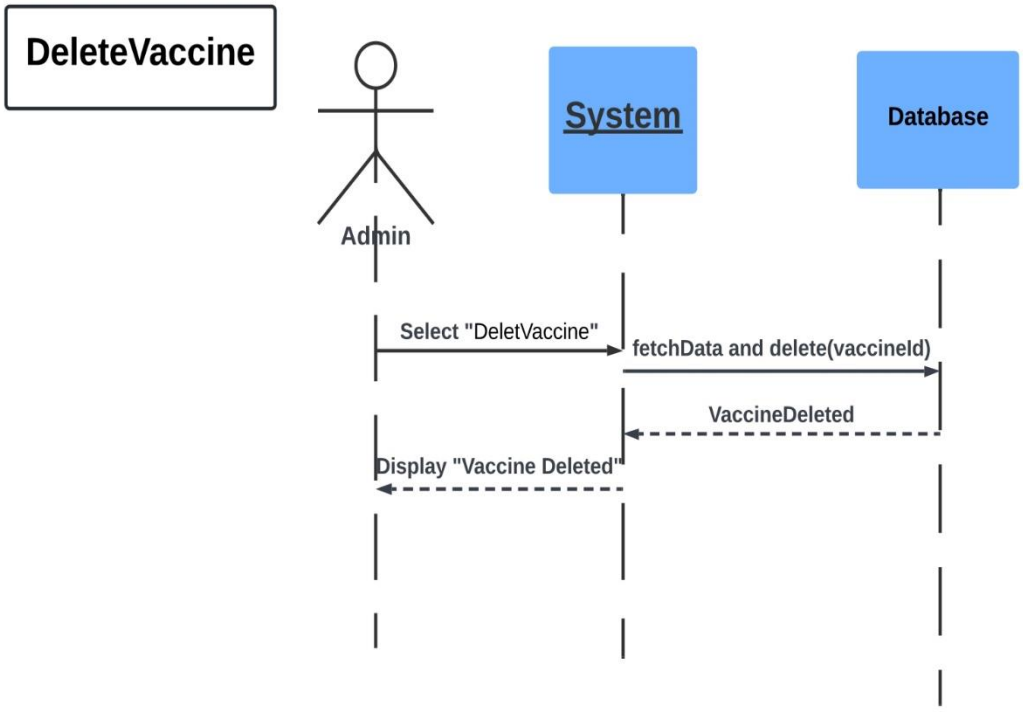
●Sequence diagram Show_Vaccine_Info



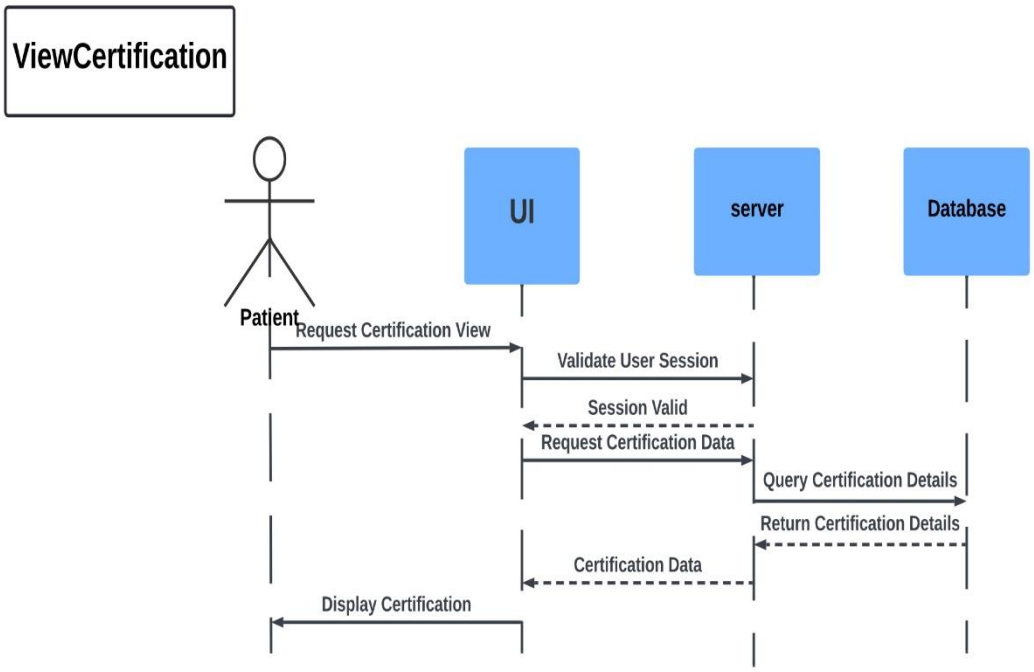
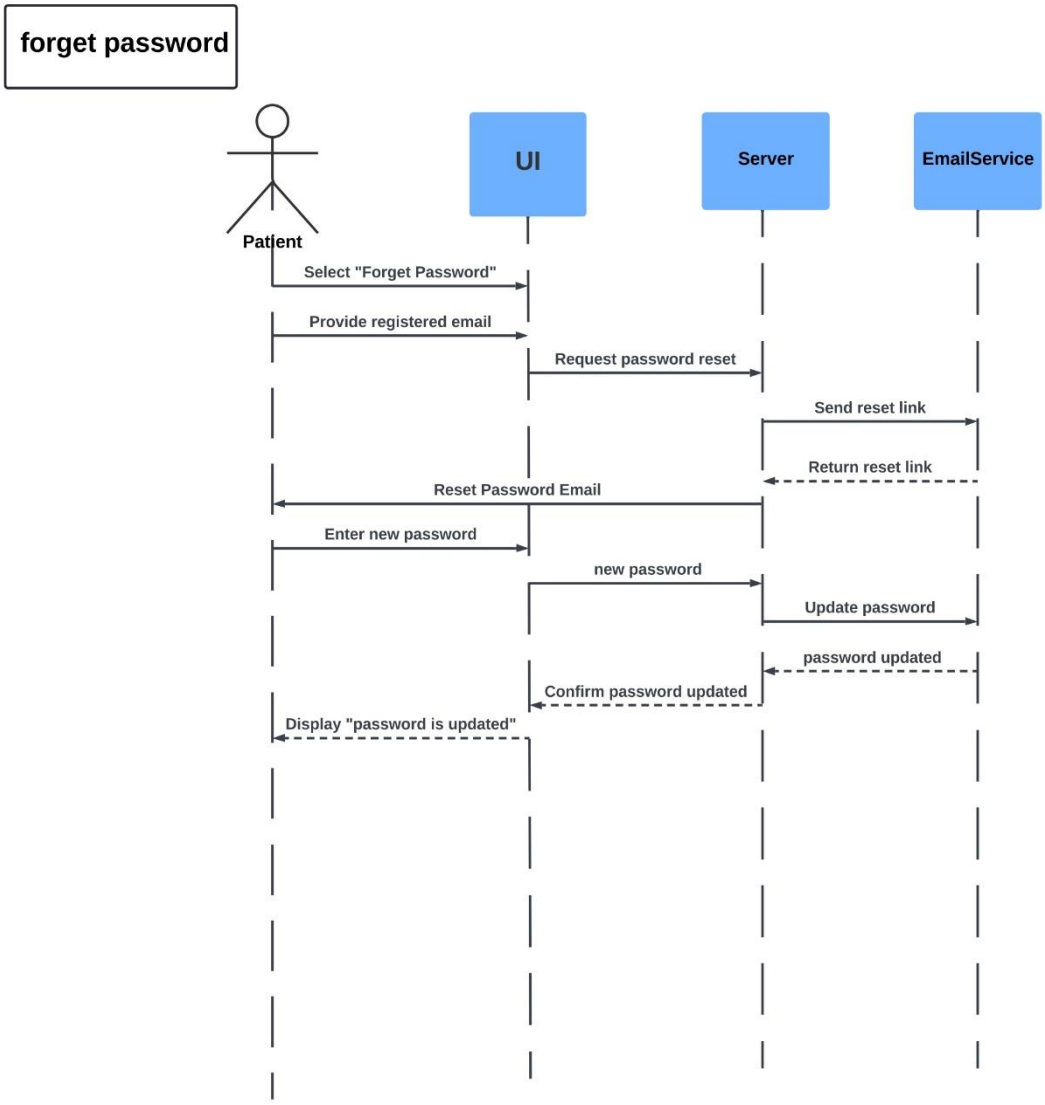
●Sequence diagram Accept User or Reject.



●Sequence diagram Delete_Vaccine



●Sequence diagram View_Certification



●Sequence diagram forget password