

Product Design

Project Name: Vaccination Service for Digital Village

Team Number: 10

Members:

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- Pratham Gupta
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Design Overview

Architectural design

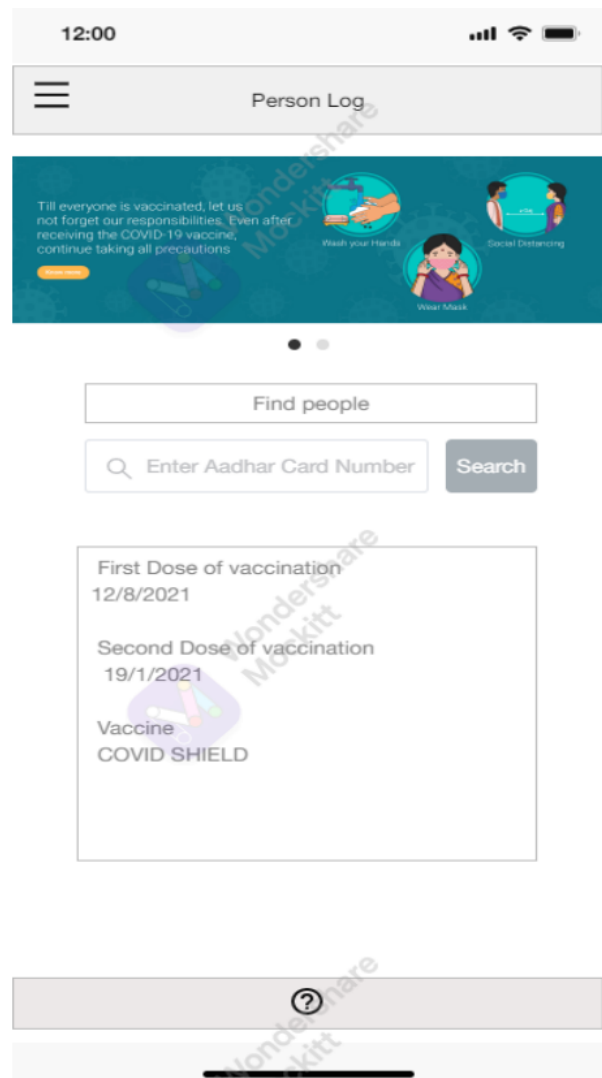
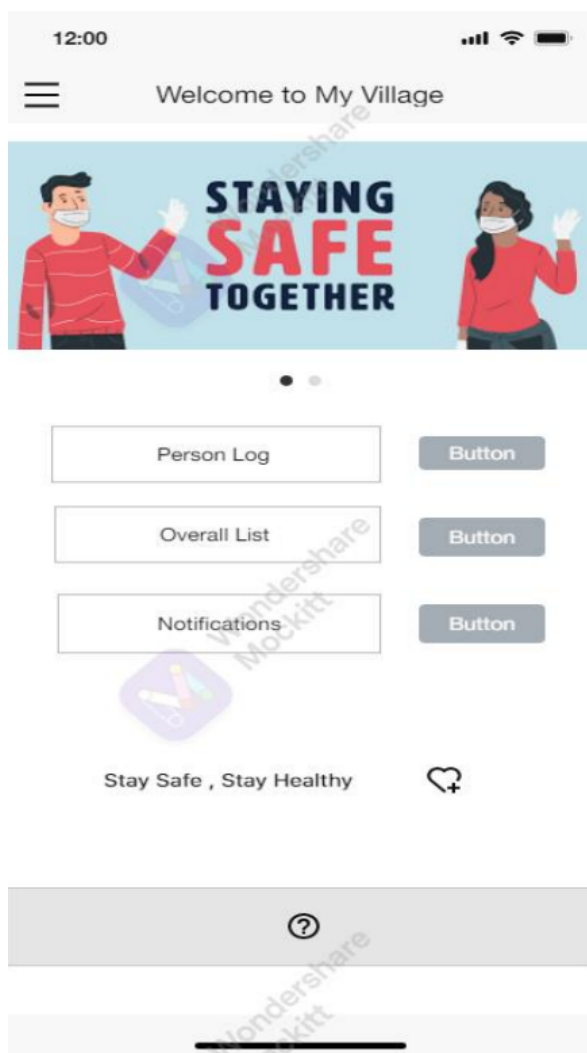
- The basic decomposed modules are for Admin, Payment, Complaints, Announcements, villagers, and Vaccination module.
NEW:
- The vaccination module stores the details of the people, risk factors, and their vaccination status. These details are stored as part of the villager's module.
- The payment module is enhanced to carry out payments or redirect to respective payment portals
OLD:
- The Admin module is the head of the village. He manages the village.
- The Villagers module is the people staying in the village. They can make complaints, payments, etc.
- The Complaints module stores details of the complaint such as the number of complaints IDs and complaint status.
- The Announcements module stores various announcements the admin sends.
- The Payment module stores details of the necessary payments/bills.

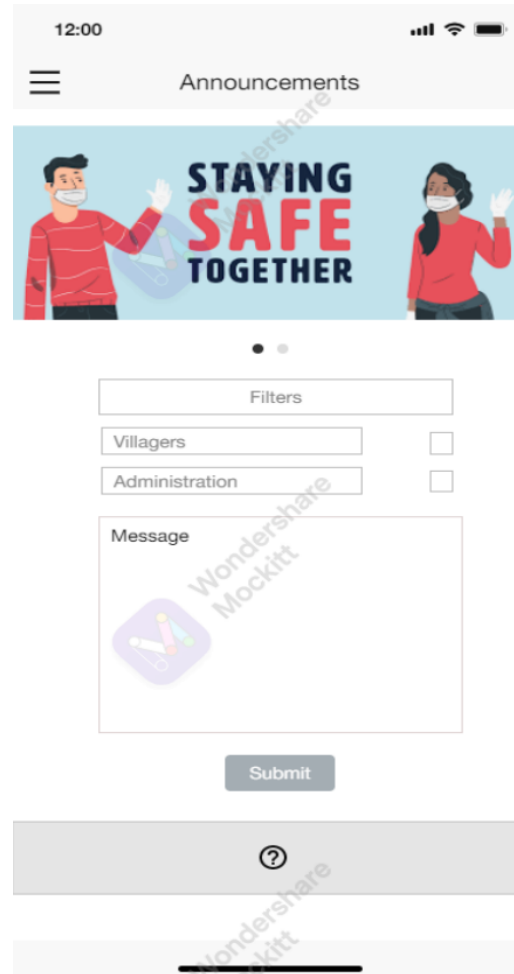
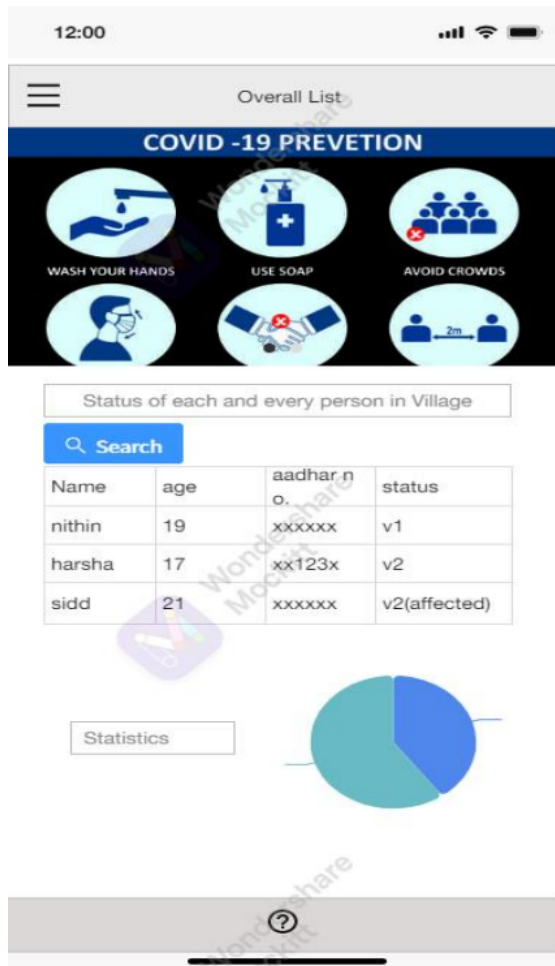
System interfaces

User Interface

The user interface wireframes are as mentioned below. Each of the wireframes that follow is explained below -

- Vaccination Module Home page
- Personal Log
- Overall List of villagers
- Notifications
- Statistics of the Villagers





APIs

VACCINATION MODULE:

1. Villager
 - a. Add()
 - b. Edit()
 - c. Delete()
 - d. All()
2. Covid Announcements
 - a. Add()
 - b. Delete()

c. All()

DIGITAL VILLAGE:

1. User (dvUser, userDetails, userAddress, userRole)

- update()
- register()

2. Complaints

- add()
- viewStatus()
- updateStatus()
- view()

3. Announcement

- add()
- view()

4. Payment reminders

- pay()
- sendreminder()
- viewreminder()

5. Forms

- uploadForms()
- downloadForms()

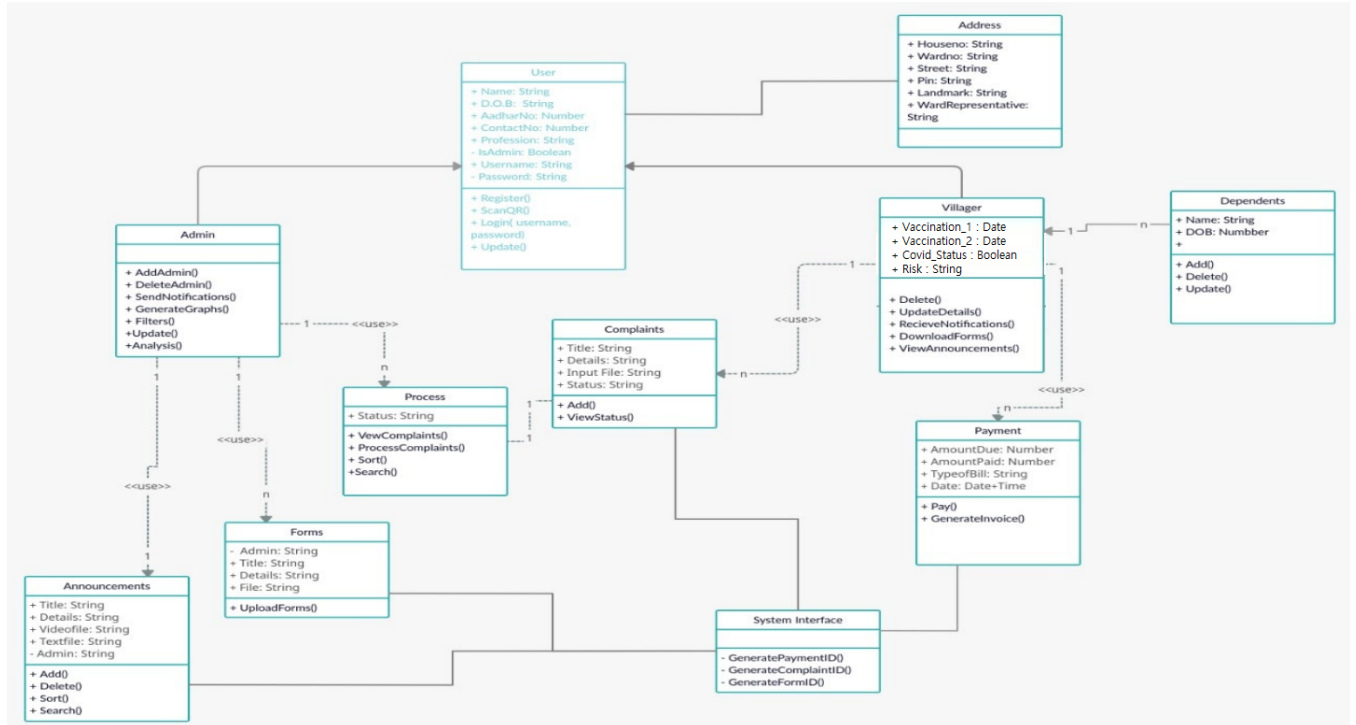
6. Roles

- add()
- update()

7. Ward Representatives

- add()
- update()

Model



Vaccination Module-

1. Covid Announcements	<p>Class State Stores announcement id, name, description, validtill, format and link.</p> <p>Class Behavior:</p> <ul style="list-style-type: none"> add() <ul style="list-style-type: none"> View() Delete()
2. Covid status	<p>Class State</p> <p>Stores villagers Name,Aadhar Card number,phone number ,vaccination status and covid</p>

	<p>status.</p> <p>Class Behavior:</p> <ul style="list-style-type: none"> • Update() • Delete() • Edit()
3. Statistics	<p>Class State</p> <p>Stores the statistics of positive,negative cases in the village.</p> <p>Class Behavior:</p> <ul style="list-style-type: none"> • View()

Digital Village-

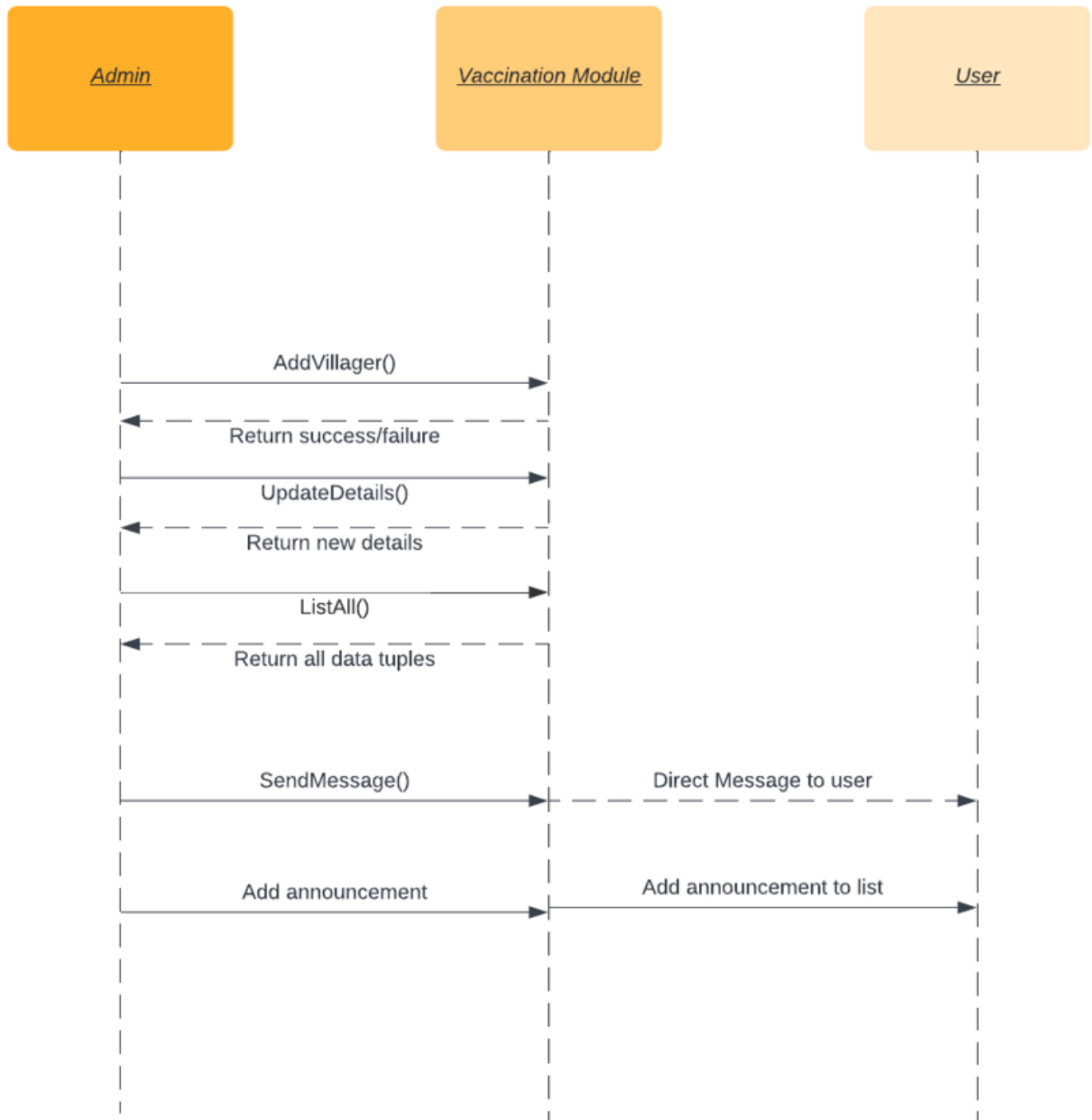
1. User	<p>Class state</p> <p>Stores user_id, username, password, firstname, lastname, aadhaar no, mobile no, dob, user address and loginrequired.</p> <p>Class behavior</p> <ul style="list-style-type: none"> • update() • register()
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2. Complaints	<p>Class State</p> <p>Stores complaint_id, name, description, attachment link, status, notes and category.</p> <p>Class behavior</p> <ul style="list-style-type: none"> • add() • viewStatus() • updateStatus() • view()
3. Announcement	<p>Class state</p> <p>Stores announcement id, name, description, valid till, format and link.</p> <p>Class Behavior:</p> <ul style="list-style-type: none"> • add() • view()
4. Payment reminders	<p>Class State</p> <p>Stores payment id, category, name, description, frequency, amount, generated(yes/no) and year.</p> <p>Class behavior:</p> <ul style="list-style-type: none"> • pay() <ul style="list-style-type: none"> • send reminder() • view reminder()

5. Forms	<p>Class State Stores form id, name, attachment link and description</p> <p>Class Behavior</p> <ul style="list-style-type: none"> • uploadForms() • downloadForms()
6. Roles	<p>Class State Stores role id and name.</p> <p>Class Behavior:</p> <ul style="list-style-type: none"> • add() • update()
7. Ward Representatives	<p>Class State Stores ward representative id, user id and ward number.</p> <p>Class Behavior:</p> <ul style="list-style-type: none"> • add() • update()

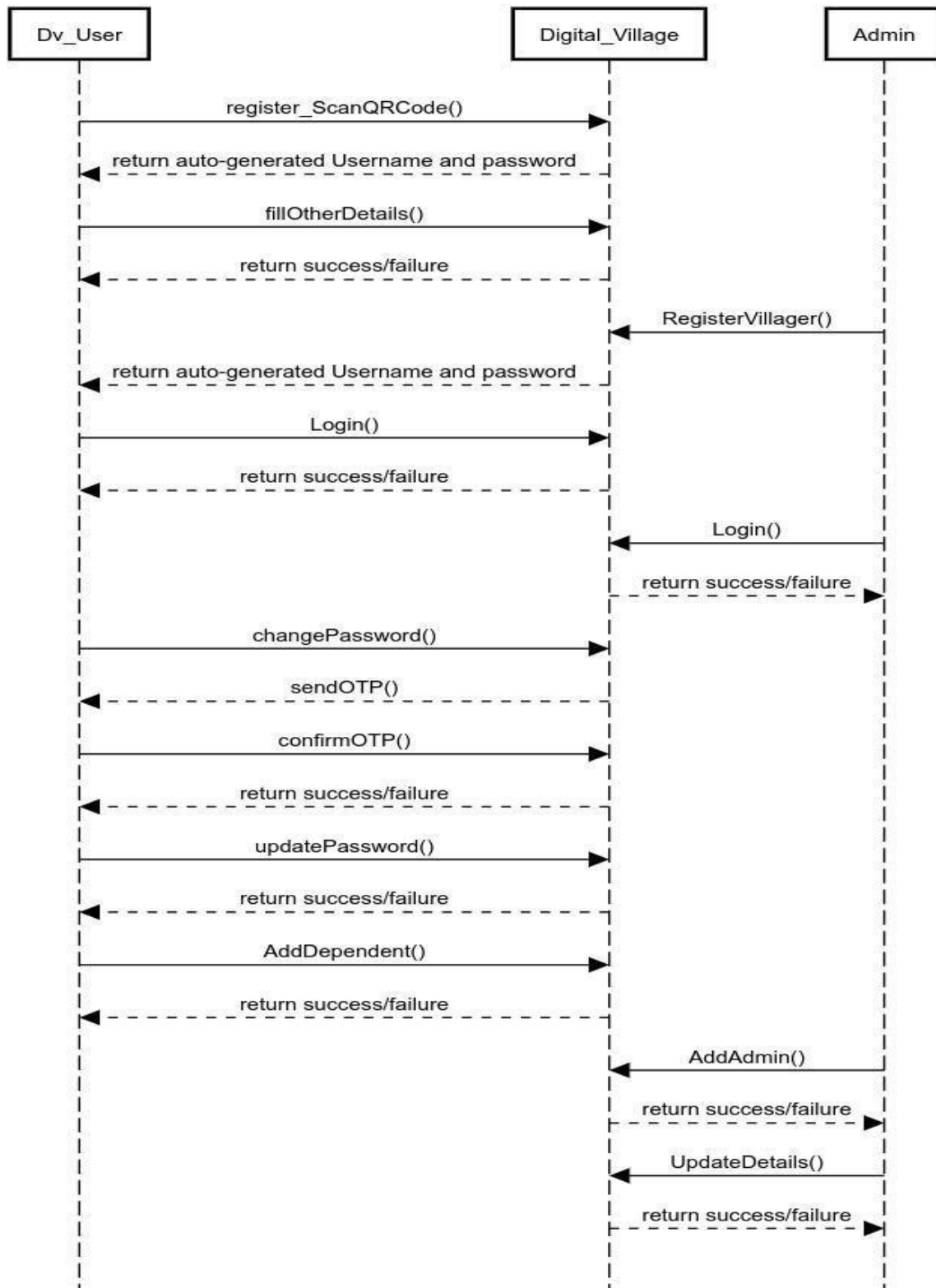
Sequence Diagram(s)

Vaccination Module

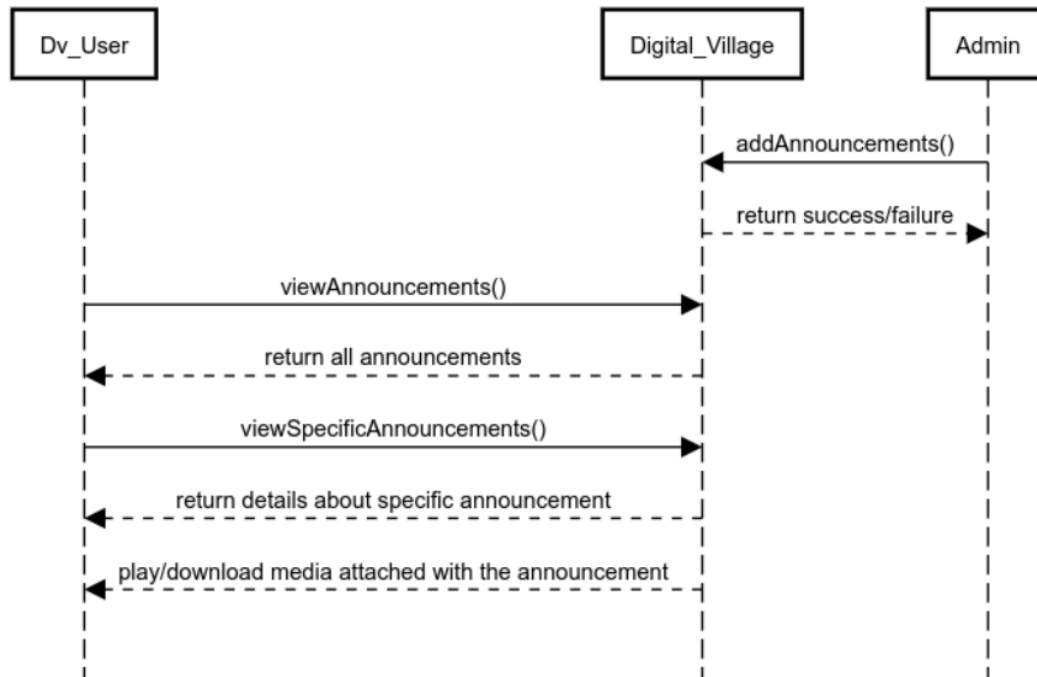


Digital Village

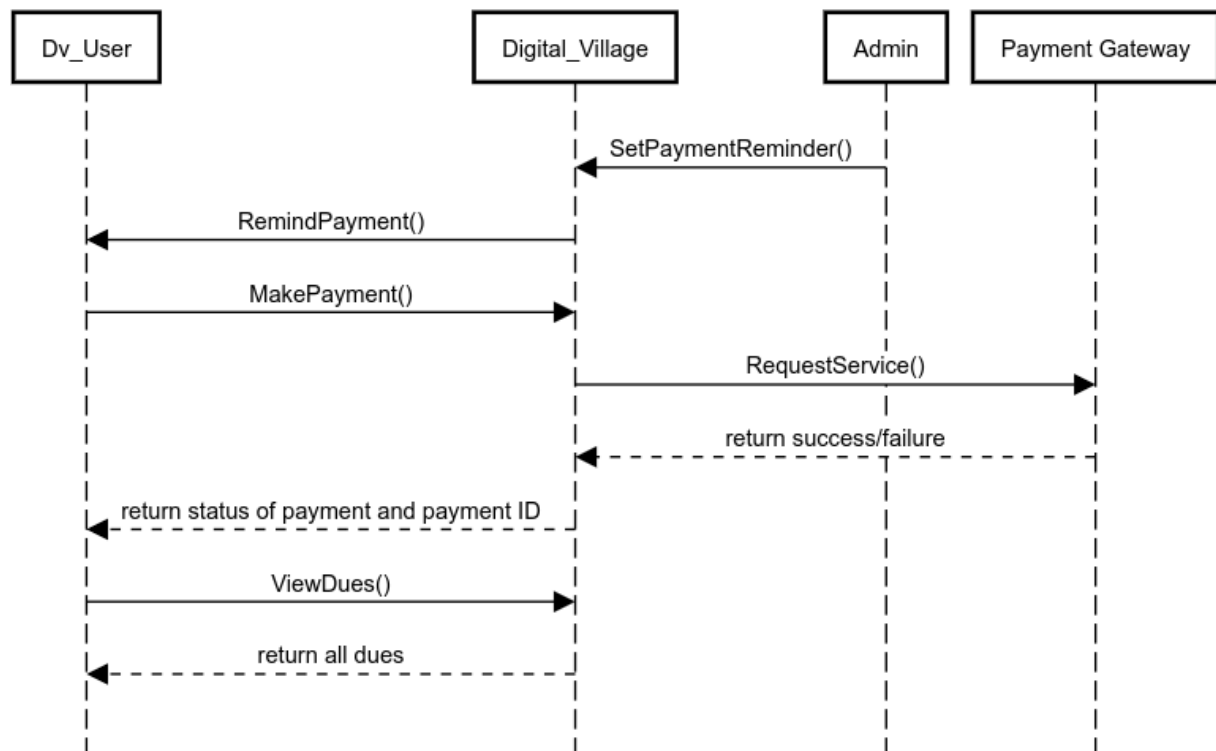
User Authentication



Announcements



Payments



Manage Complaints



Design Rationale

Current design was done keeping the relatively less educated and tech friendly type of the user in mind. The app icons were made big and main focus was easy navigability around the app.

Issues:

1. Vaccination Module Database-

- planned to be a part of the existing digital village database
- vaccination details are now stored in a separate database giving up on the initial idea
- this was done to be able to produce the vaccination module as both an independent and an integrated microservice to the digital village project.
- allowed enhanced scalability