**OOP PROJECT – VACCINE BOOKING SYSTEM**

Group 7

S Anand (Roll no: AM.EN.U4AIE21155)

Advaith P R (Roll no: AM.EN.U4AIE21106)

Mahadev Sunil (Roll no: AM.EN.U4AIE21141)

Nandana Ajoy (Roll no: AM.EN.U4AIE21145)

Shreya Pulluri (Roll no: AM.EN.U4AIE21159)

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AMRITA SCHOOL OF ENGINEERING

AMRITA VISHWA VIDYAPEETHAM

AMRITAPURI 690 525

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**ABSTRACT**

As the world is being shut down due to the Covid-19 pandemic, the urgency of getting vaccinated has been increasing rapidly. But due to high population density, distributing these vaccines to the people has been proven very difficult. The Vaccine Booking System reduces this difficulty. Now, people can book slots for getting vaccinated from their home at their desired date and time.

The user who needs to book the vaccine can access the application by downloading it from the internet. The user can create their own account by registering with their phone number, username and password. Their details are stored in the system so that no one other than the user themselves can access their account. Once the user has logged in to the application, they can either book their vaccination slot, view their profile or update their login credentials. Booking a vaccine requires the user to be above 18 years old.

The system checks for the availability of slots in the given date and time and shows an error message if there isn’t. The system also recommends available time slots to the user. Once the vaccination slot is booked, the system displays a confirmation message displaying the date and time of his/her vaccination. Users should not refresh the page until they see the confirmation message. After the vaccination slot is booked, the user can go back to the main application page and either exit the system or view their profile or update their login credentials.

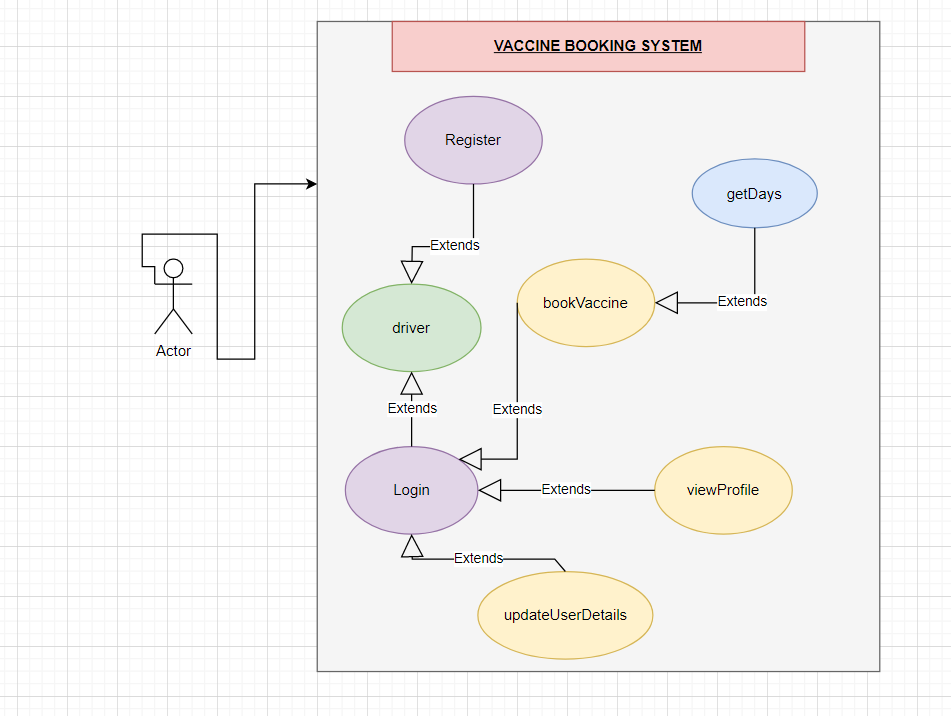
**Functional Requirements of the system**

1. User needs to register before using the application.
2. User needs to login to the system to access their main page.
3. User can book vaccine slots using the system.
4. User can change their login credentials at any time.
5. User can view their personal details at any time.

**Use Case**

|  |  |
| --- | --- |
| **Actors** | **Use cases** |
| Customer | Login, Register, Book Vaccine, Update Login Credentials, View Profile |

**Use Case Diagram**

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**Use Case Description**

|  |  |
| --- | --- |
| Use case ID | Login |
| Brief description | The user can get access to the system using username and password. |
| Primary actors | System user |
| Precondition | User must register with the system and should have a valid login credentials. |
| Post condition | Already not a registered user, register with the system or perform transactions if login attempt was successful. |
| Main success Scenario | If valid user, then display welcome message and give access to his/her account else return error message. |
| Actor Action | System Response |
| 1. The user enters login credentials and clicks on login button. | 2. Performs validation of login credentials. If valid user, provides access. |
| 3. The user get access into the account main page. |  |
| Alternate flow |  |
|  | 2a. If not a valid user, system returns error message. |

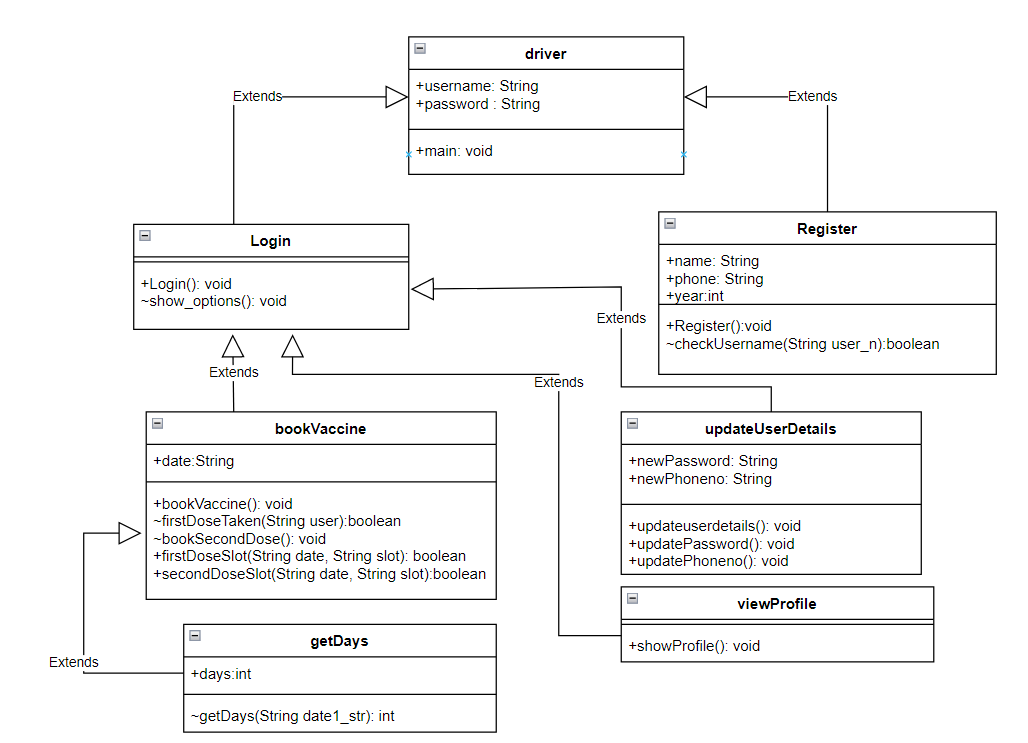
|  |  |
| --- | --- |
| Use case ID | Register |
| Brief description | The user can register himself/herself with a new profile in order to login. |
| Primary actors | New user |
| Precondition | User must not have a previous profile. |
| Post condition | User gets registered. |
| Main success Scenario | Confirmation message when user registers successfully and his/her credentials get stored in the details file. |
| Actor Action | System Response |
| The user enters his/her credentials that are to be registered and clicks on register button | User credentials are recorded and stored in the details file. |
|  | User is redirected to his/her login page. |

|  |  |
| --- | --- |
| Use case ID | bookVaccine |
| Brief Description | The user can book vaccine by specifying desired date and time. |
| Primary Actors | System User |
| Precondition | User must be 18 or older. |
| Postcondition | Date and time slot details are displayed after checking the slot availability. |
| Main success Scenario | If booking is successful, display success message and booking details. |
| Actor Action | System response |
| User selects the vaccination centre, date and time slot from the suggested list. | System provides booking confirmation message for the selected date and time slot. |
| Alternate flow |  |
|  | If the age of the user is not above 18, display “You must be at least 18 years old.” |
|  | If the user’s preferred date and time slot is not available the system displays error message. |

|  |  |
| --- | --- |
| Use case ID | viewProfile |
| Brief description | The user can view their profile using this case |
| Primary actors | System user |
| Precondition | User must register with the system and should have a valid login credentials. |
| Main success Scenario | The user can view their account details. |
| Actor Action | System Response |
| 1. The user enters login credentials and clicks on view profile button. | 2. Performs validation of login credentials. If valid user, the program shows the account details to the user. |

|  |  |
| --- | --- |
| Use case ID | updateUserDetails |
| Brief description | The user can change or edit login details |
| Primary actors | System user |
| Precondition | User must register with the system and should have a valid login credentials. |
| Post condition | User can change login details like their password and phone number. |
| Main success Scenario | If valid user, then edit login credentials. |
| Actor Action | System Response |
| 1. The user enters present login credentials. | 2. Performs validation of login credentials. |
| 3. The user gets access to edit the details. | 4.Stores the new login details |
| Alternate flow |  |
|  | 2a. If not a valid user, system returns error message. |

Class Diagram



Terminal Interface

Hello, Welcome to CO-VAC app. Please enter your choice to continue:

1. Login (For registered users)

2. Register (For new users)

2

----Register----

Enter your name:

Anand

Enter your Phone Number:

1234567890

Enter your username:

anand

Enter your password:

anand123

Enter your year of birth

2003

----Login----

Enter username:

anand

Enter password:

anand123

Login Successful

Enter 1 to go back to login

Enter 2 to book Vaccine

Enter 3 to view profile

Enter 4 to update user details

Enter 5 to log out

1

Going back to login

----Login----

Enter username:

anand

Enter password:

anand123

Login Successful

Enter 1 to go back to login

Enter 2 to book Vaccine

Enter 3 to view profile

Enter 4 to update user details

Enter 5 to log out

2

-----Vaccine Booking-----

Enter the sl no of the vaccine you prefer

1: CoviShield

2: CoVaccin

3: Pfizer

4: Sputnik

1

Enter date as DD-MM-YYYY

26-09-2021

First Dose has been booked for 26-09-2021, slot 1

Hello, Welcome to CO-VAC app. Please enter your choice to continue:

1. Login (For registered users)

2. Register (For new users)

1

----Login----

Enter username:

anand

Enter password:

anand123

Login Successful

Enter 1 to go back to login

Enter 2 to book Vaccine

Enter 3 to view profile

Enter 4 to update user details

Enter 5 to log out

3

-----Your Profile-----

Name Anand

Phone number 1234567890

Username anand

First Dose Booked

Second Dose Not Booked

Hello, Welcome to CO-VAC app. Please enter your choice to continue:

1. Login (For registered users)

2. Register (For new users)

1

----Login----

Enter username:

anand

Enter password:

anand123

Login Successful

Enter 1 to go back to login

Enter 2 to book Vaccine

Enter 3 to view profile

Enter 4 to update user details

Enter 5 to log out

4

-----Update User Details-----

Press 1 to change password

Press 2 to change phone number

2

Enter new phone number

0123456789

----Login----

Enter username:

anand

Enter password:

anand123

Login Successful

Enter 1 to go back to login

Enter 2 to book Vaccine

Enter 3 to view profile

Enter 4 to update user details

Enter 5 to log out

5

Logging out...

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