Technical Design Document

Project name: **BusNama**

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* Mohammad Masharib Hussain (46000001)
* Vikas Singh(46001755)

**Introduction:**

BusNama is created to meet the needs of online bus reservation system, with 2 actors: Admin and Customer. The architecture implemented is Spring Boot Micro services.

**Functional Requirements:**

The functional requirements of the project are:

**For the Admin:**

* Add a Bus
* Delete/Cancel a Bus
* View Buses
* View Users

**For the User:**

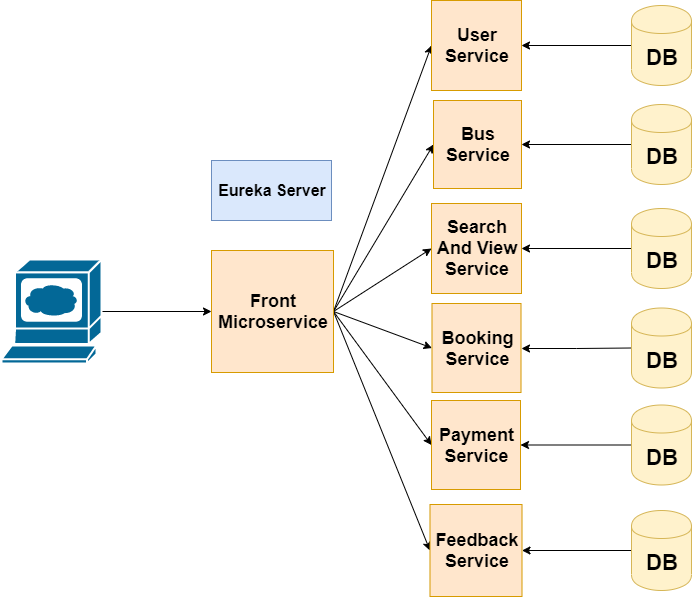
* Login/Register
* Search Buses
* Create Booking
* Make Payment
* View Bookings
* View Booking Details
* Cancel Booking
* Give Feedback

**Micro-Services**

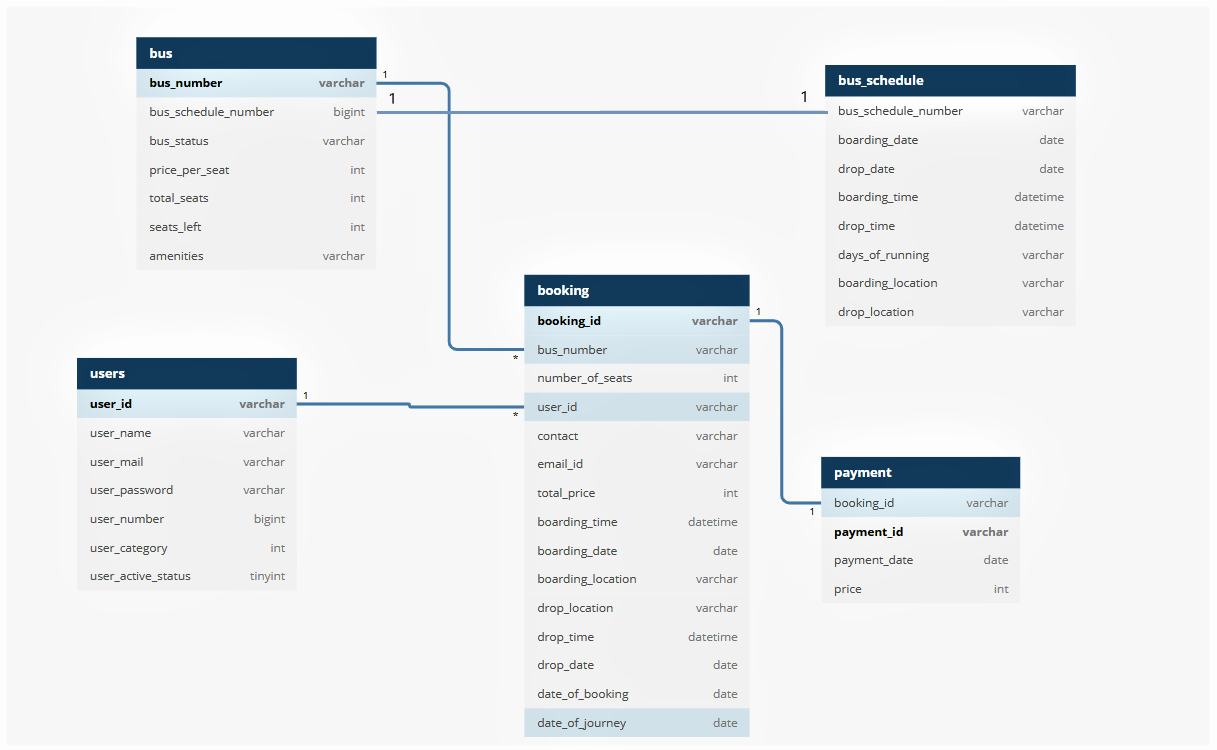
The different micro-services in which this project is divided into are:

* **Bus Service:** Insert a new bus, cancel or delete an existing bus
* **User Service:** Register a new account and login (as a customer) and login (as the admin)
* **Booking Service:** Create a new booking, cancel an existing booking, download ticket
* **Search and View Service:** View customers (as the admin), view all buses (as the admin), explore buses (as a customer), view existing bookings, view booking details
* **Payment Service:** Make a payment for the booked tickets after validating credentials
* **Feedback Service:** Provide rating and feedback (as a customer)

**Overall Architecture Diagram:**

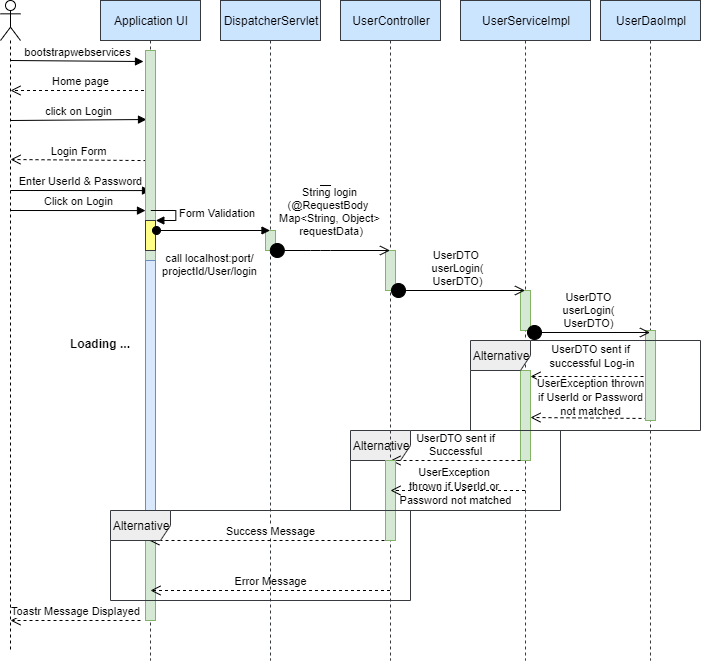


**Overall Entity Relationship Diagram:**

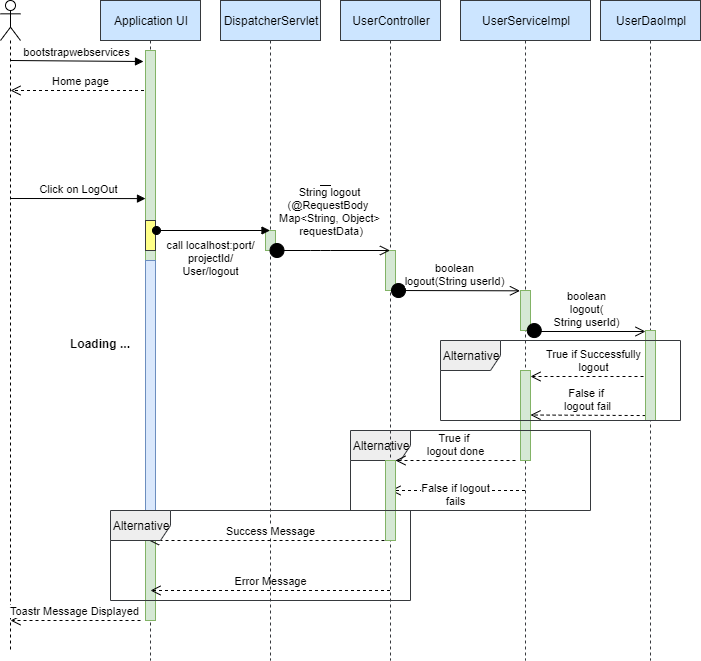


**Sequence Diagrams**

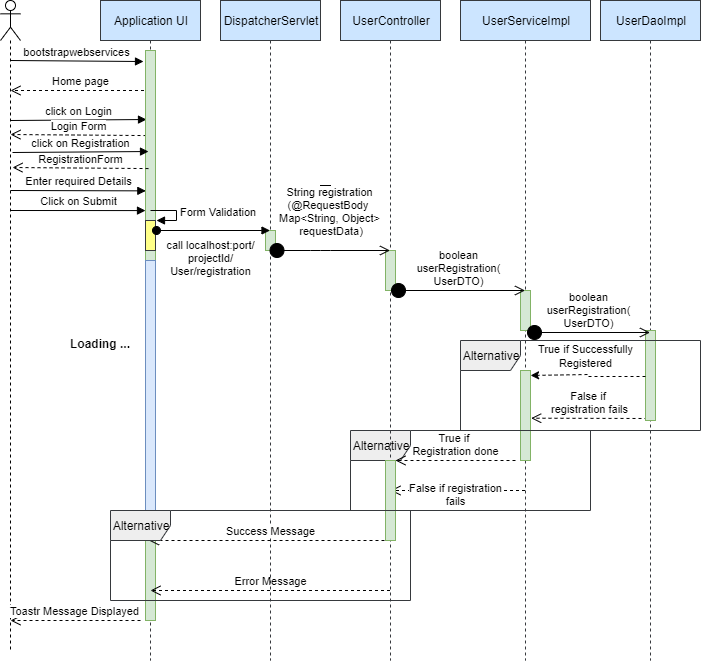
**User Service:**

**Login -**

**Registration of new User -**

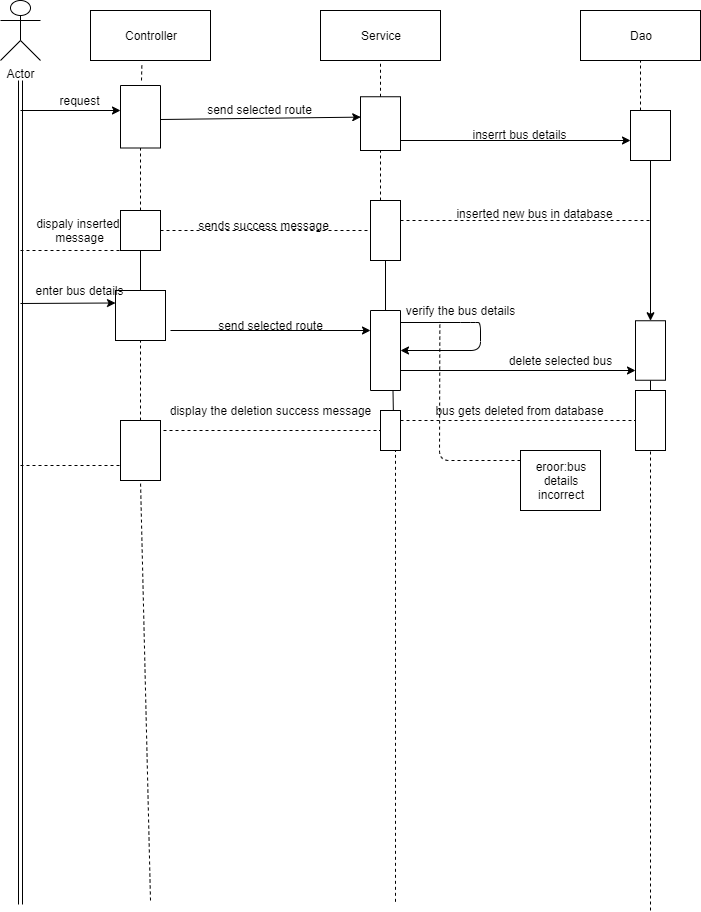


**Logout -**

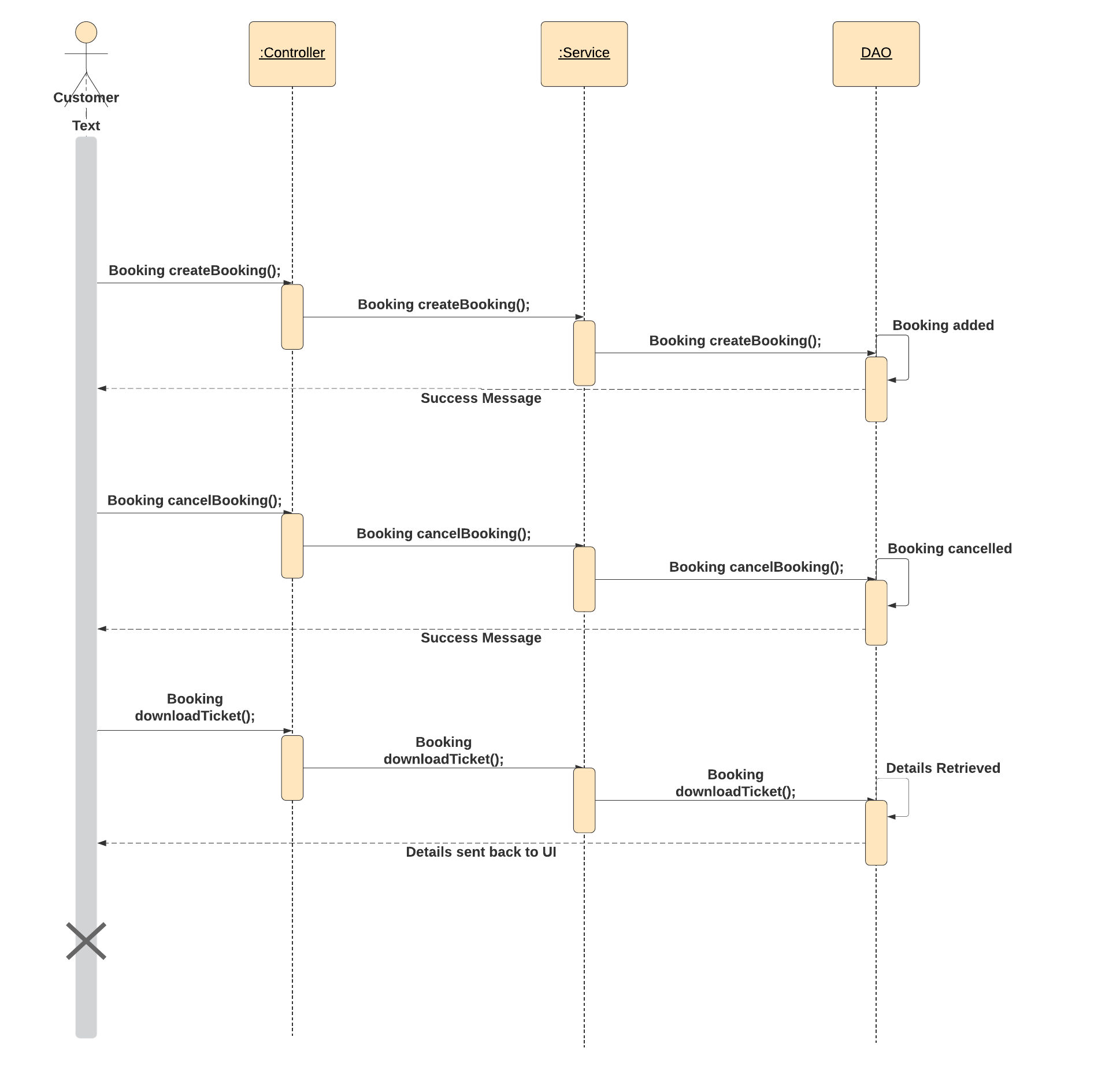


**Bus Service:**

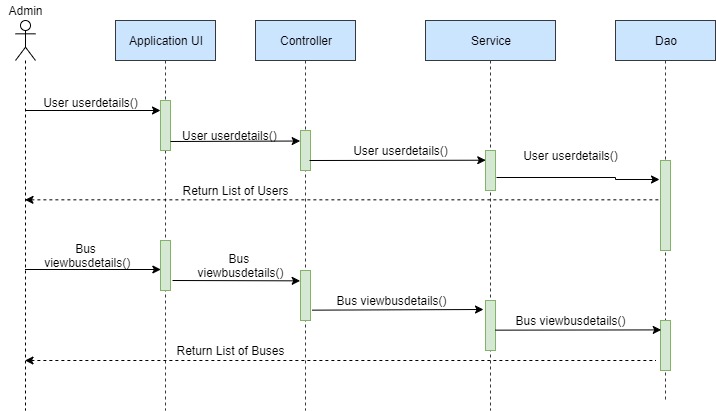
**Insert and Delete Bus:**



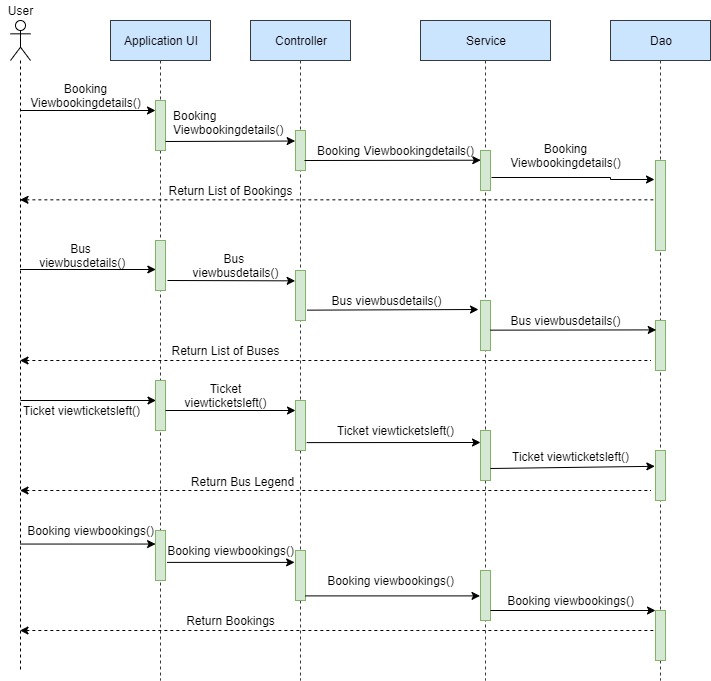
**Booking Service:**

**Create booking, cancel booking, and download ticket:**

**Search and View Service:**

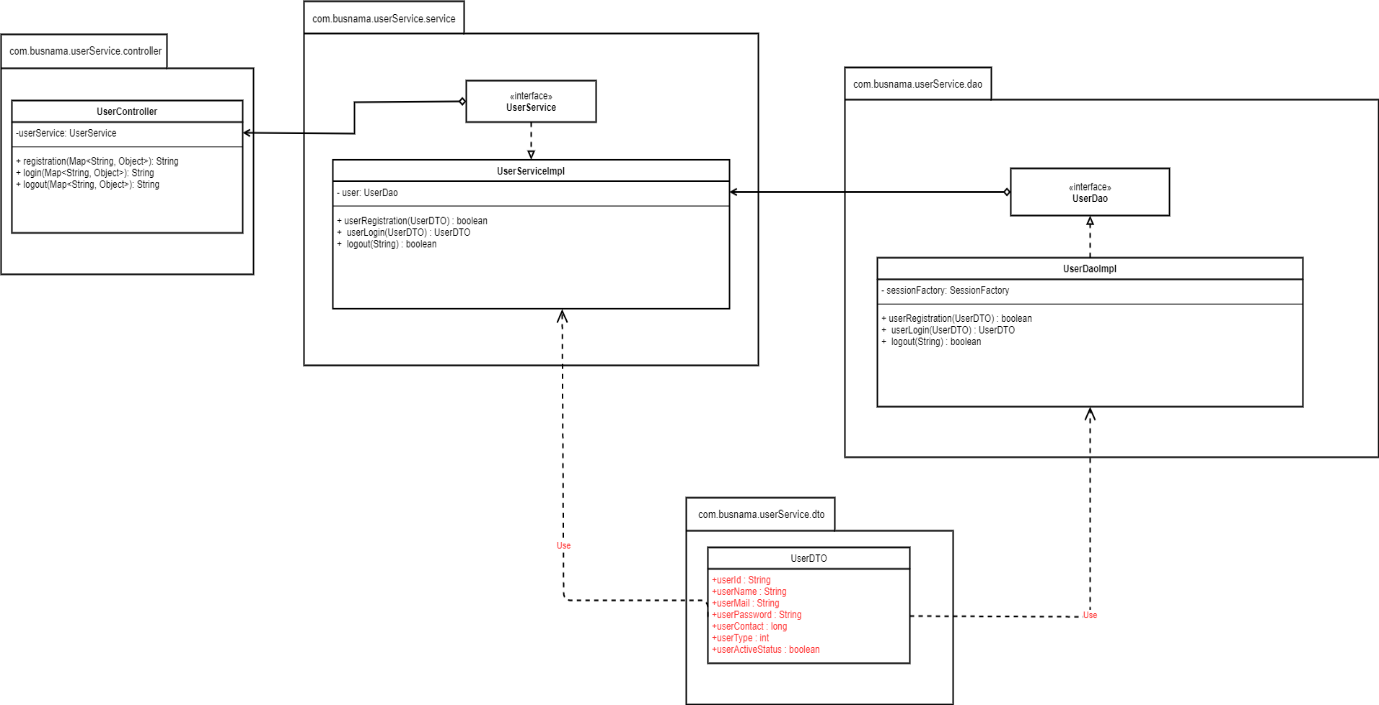
**For the Admin:**

**For the customer:**

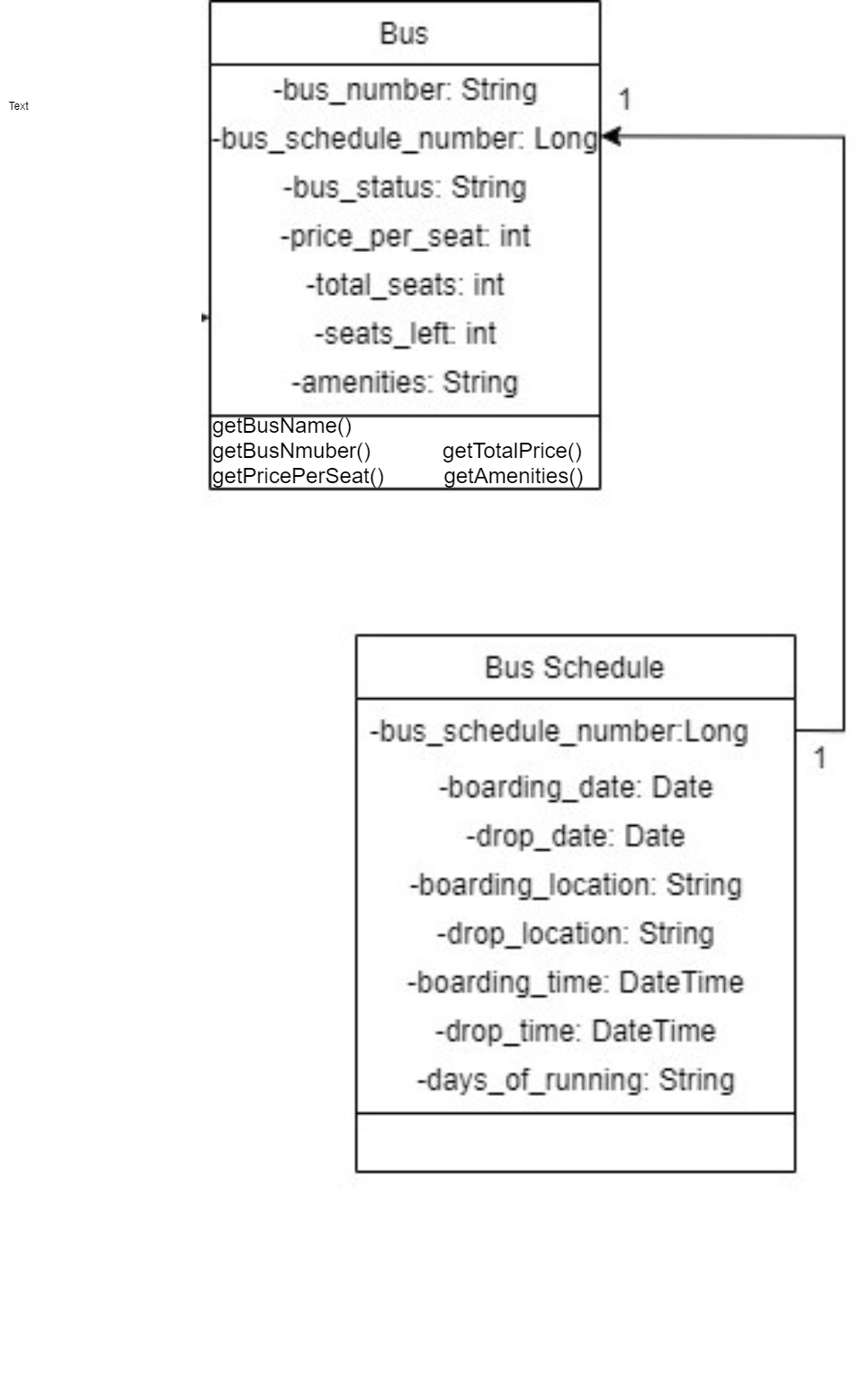


**Class Diagrams**

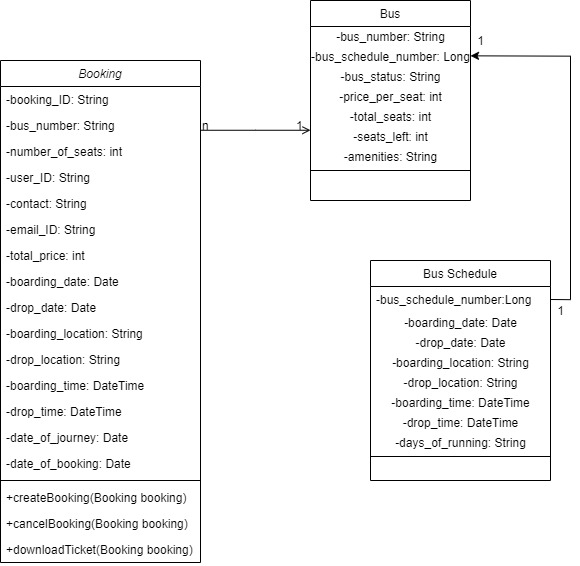
User Service:



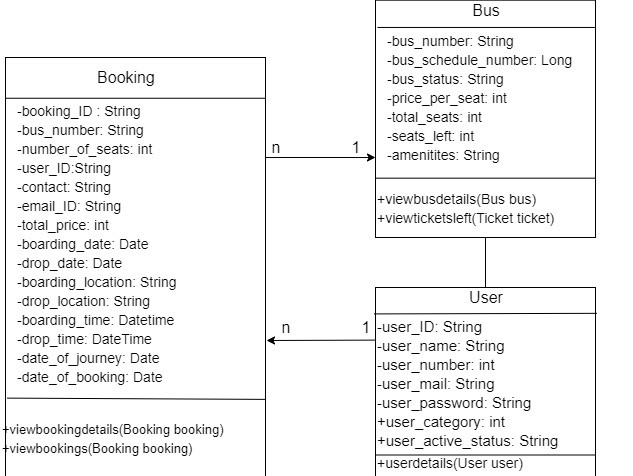
Bus Service:



Booking Service:



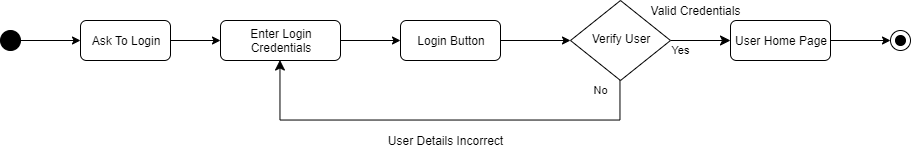
Search and View Service:



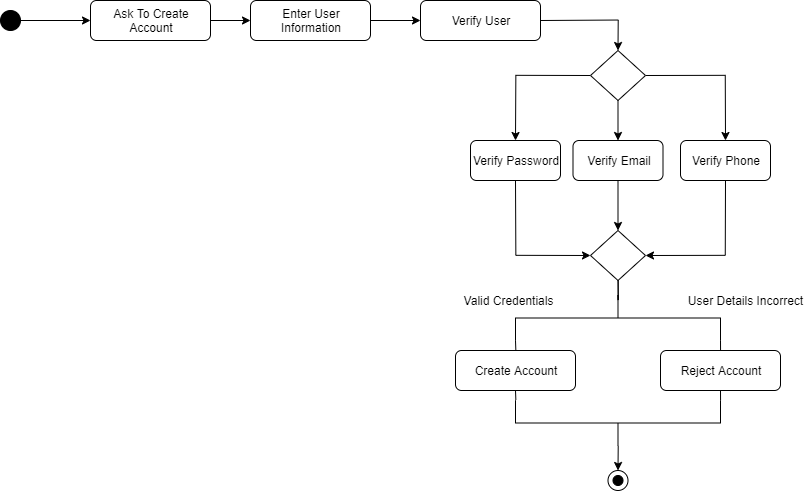
**Activity Diagrams**

User Service:

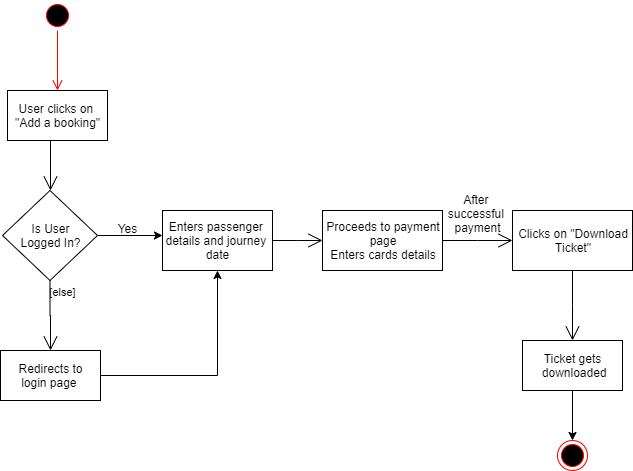
**Login:**



**Registration:**

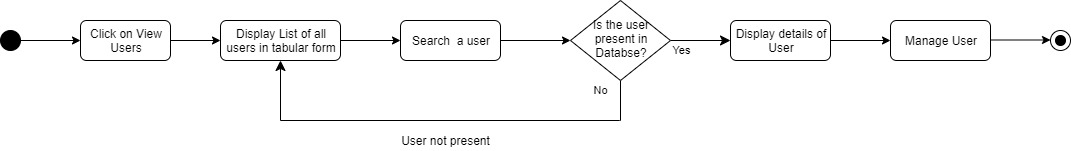


Booking Service:

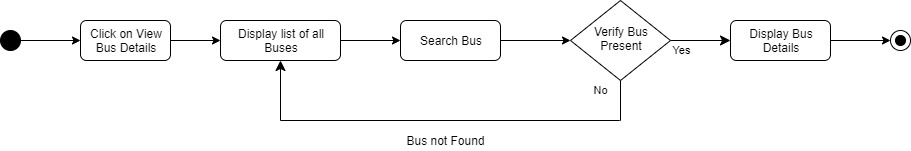


Search and View Service:

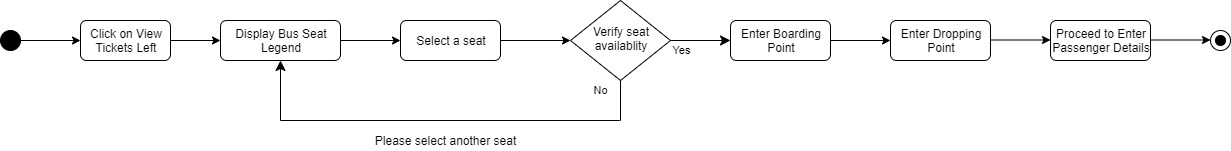
**View Users:**



**View Bus Details:**



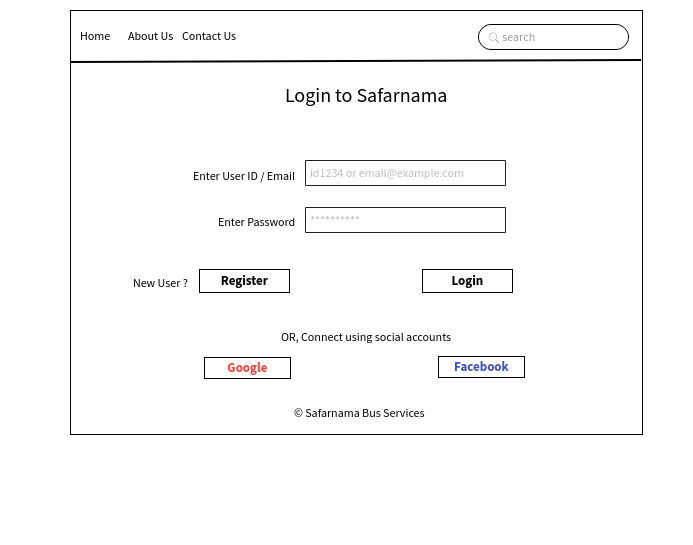
**View tickets left**:



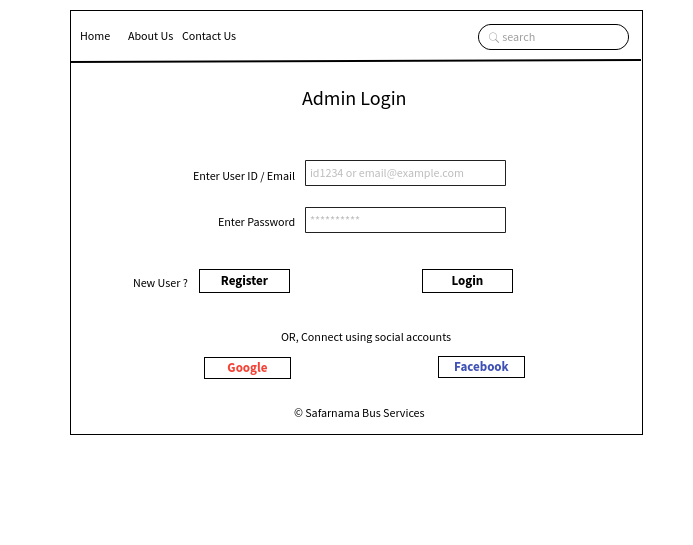
**Wireframes**

User Service:

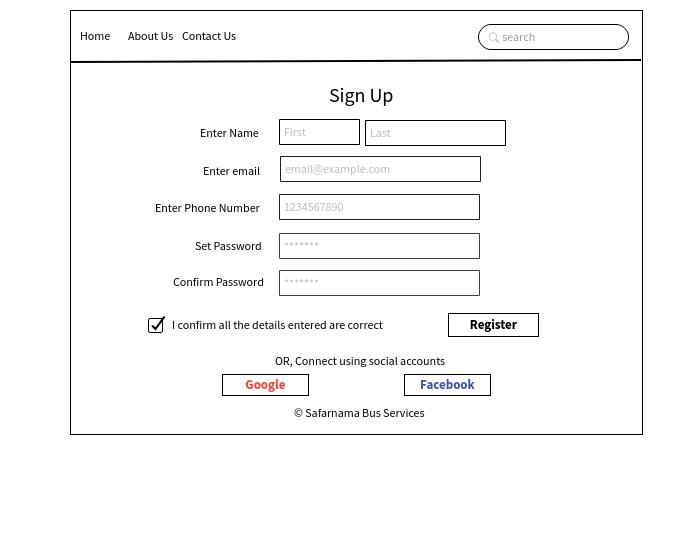
**Customer Login:**



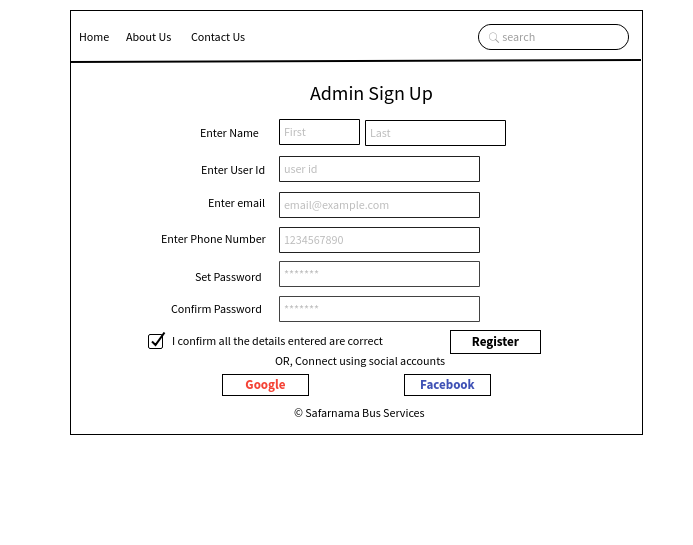
**Admin Login:**



**Customer Registration:**



**Admin Registration:**

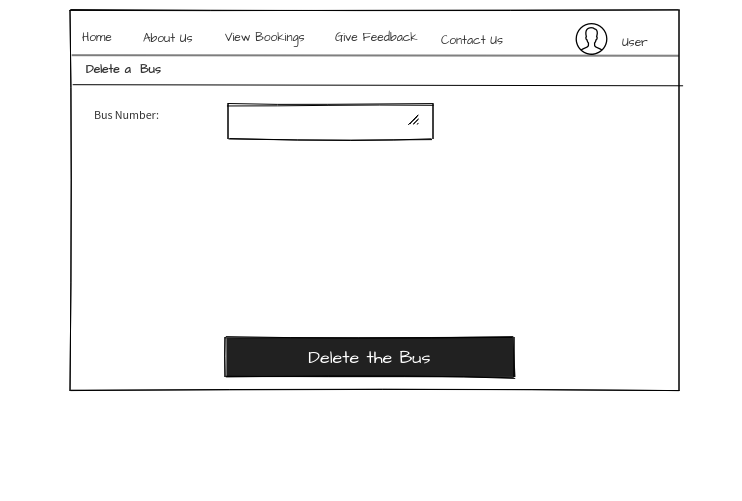


Bus Service:

**Insert Bus:**

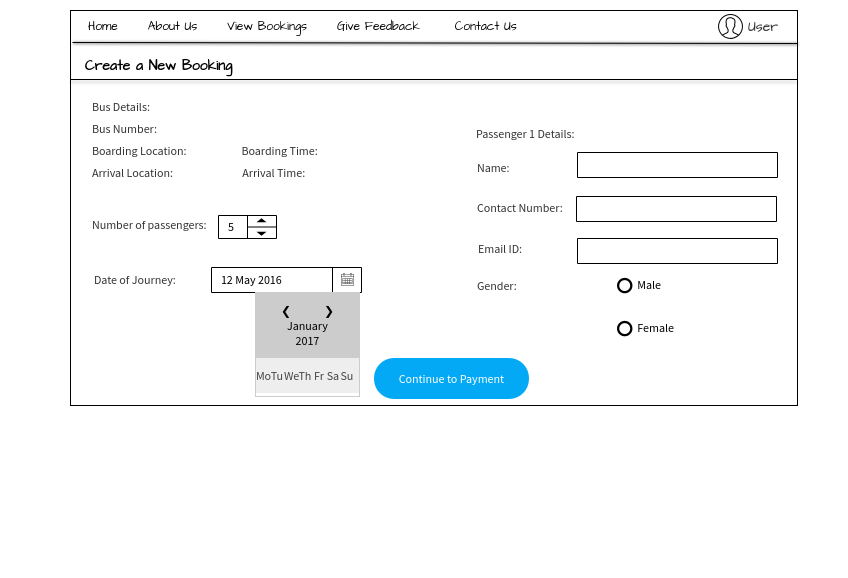


**Delete Bus:**

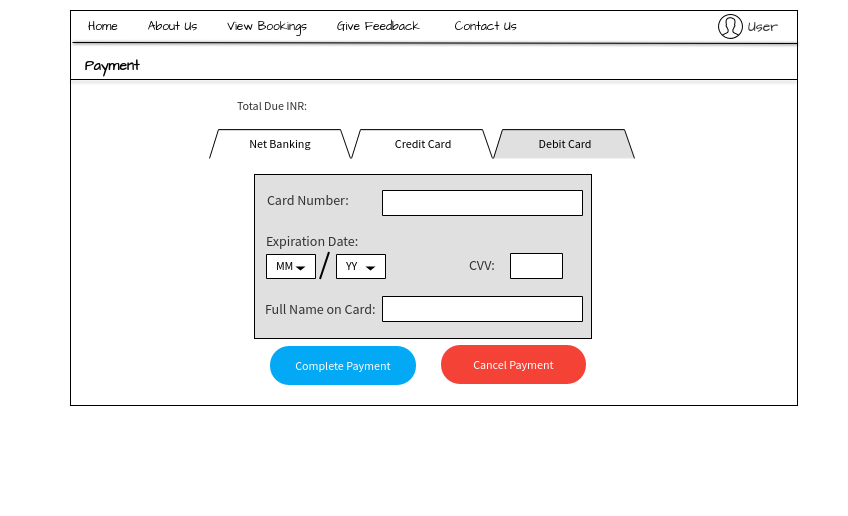


Booking Service:

**Create Booking:**

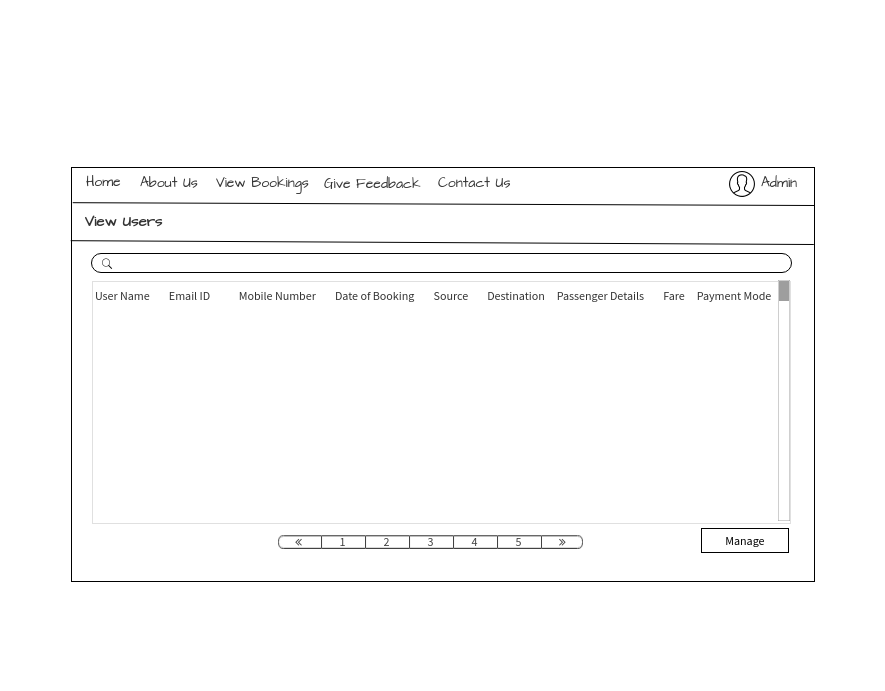


**Payment:**

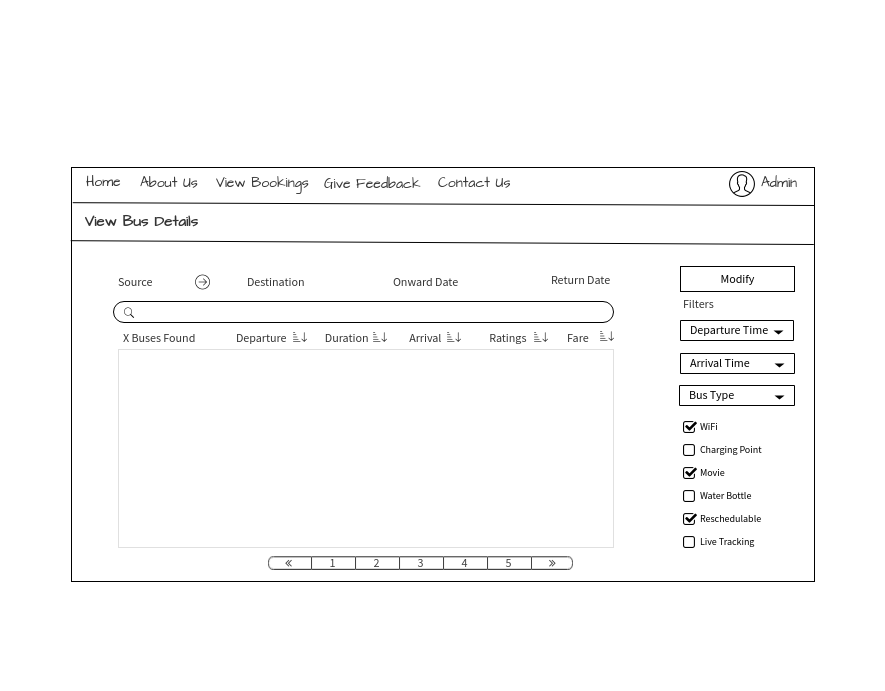


View and Search Service:

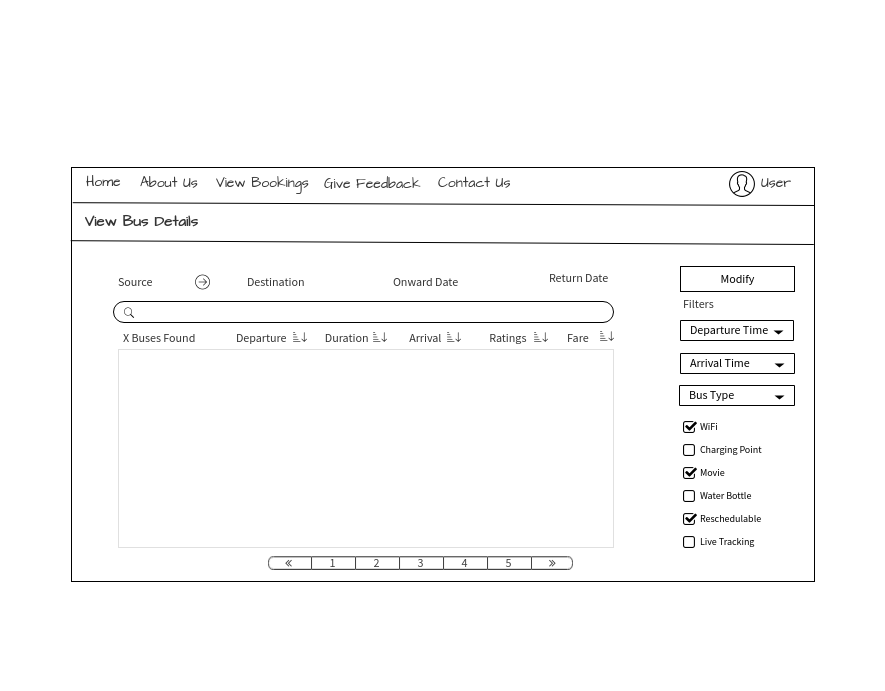
**View Users (Admin):**



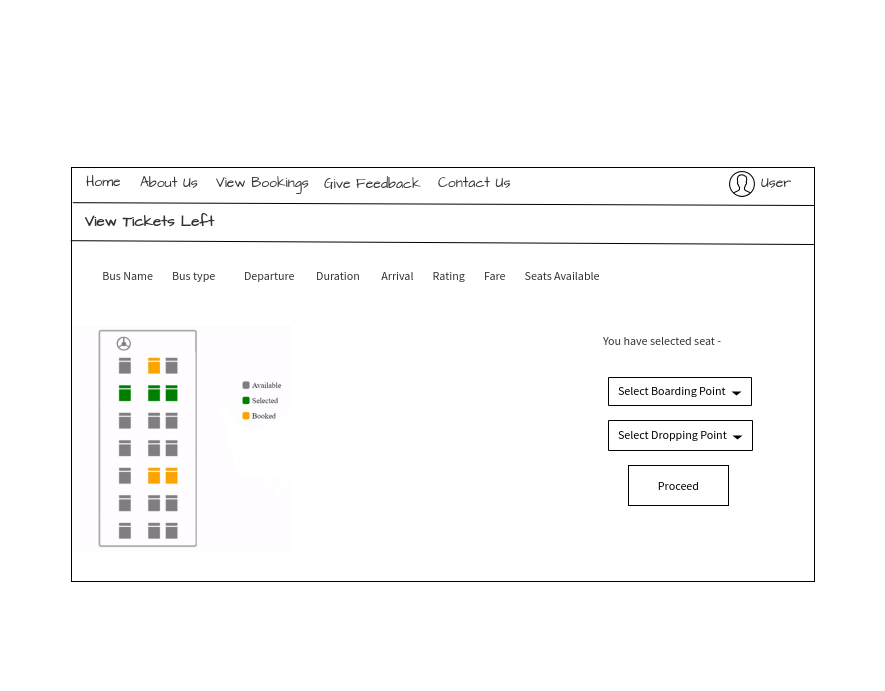
**Explore Buses (Admin):**



**Explore Buses (User):**



**View Tickets Left:**



**View Bookings:**

