**USE CASE DOCUMENT FOR BUS TICKET BOOKING APLLICATION**

**Description**

A bus ticket booking application where user can search and book bus tickets according to his/her needs.

**1)User Activities**

**Basic Flow:**

a) User Login:

User have to signup with a valid email id and password. After signing up user has to sign in with the valid credentials.

b)Search for Bus :

The user can search for bus according to his routes and timings.

c)Booking the Bus:  
Layout for the seat booking is shown and user can select the desired seat. Then can book the Seat

**Alternative Flows:**

a) Login error:  
If the user provides incorrect login credentials, the system displays an error message and display the user to enter valid credentials.

b) Invalid Search:  
If the user enters an invalid source or destination location, the system displays an error message and prompts the user to enter valid locations.

c) Seat Unavailability:  
If the selected seats are no longer available during the booking process, the system informs the user and allows them to choose different seats or search for alternative routes.

**Preconditions:**  
The system has access to an up to date database of bus, routes, schedules, and seat availability.

**Postconditions:**  
The user receives a booking confirmation with a unique ticket number.  
The system updates the seat availability and reservation status.

**2)Admin Activities**

**Basic Flow:**

a) Admin Login:  
The admin provides the registered email and password.  
The system verifies the credentials and grants access to the admin dashboard.

b)Add Bus:  
The admin can add new bus ,bus routes ,bus schedules by providing the necessary information including source ,destination, date, departure time, and arrival time.

c)View or Update Bus:  
The admin can view existing bus , bus routes ,bus schedules and their details.  
The admin can update existing bus ,bus routes ,bus schedules.

d)Delete Bus:  
The admin can search and delete existing bus , bus routes ,bus schedules.

**Alternative Flows:**

a) Login error:  
If the admin provides incorrect login credentials, the system displays an error message and display the admin to enter valid credentials.

b) Error in Bus  Addition/Update:  
If there is an error while adding or updating a bus ,bus route or schedule, such as duplicate route or invalid location, the system notifies the admin and requests correction.

c) Error in Bus  Deletion:  
If there is an error while deleting a bus such as bus is already scheduled and tickets are booked, the system notifies the admin and requests correction.

**Preconditions:**  
  
The admin can access the admin dashboard with valid login information.

Bus routes, schedules, rates, and user account information are all stored and retrieved by the system using a secure database.

The system offers the interfaces and controls required for the administrator to carry out the designated responsibilities.

**Postconditions:**  
  
All the changes made by the admin, such as adding or updating bus routes, schedules, fares, and user accounts, are reflected in the system.  
The admin's reports must produce useful information for system examination and decision-making.