Thorough study of Existing System

- **Aim of Study**
  - The aim of this research is to carry out an analysis of the Redbus online bus ticketing platform looking at its technology architecture, main features, user experience, system requirements and limitations. The objective was to see how Redbus has revolutionised travel for millions, and identify further areas that can be improved.

- **About the System**
  - Redbus is the largest online bus ticketing service in India where users can book tickets based on the preferred route, timing and operator. It aggregates the listings of government and private bus operators. It provides a seamless online interface with efficient search engine on a website and a mobile application.
    - Operates as an intermediary for 3,500+ bus operators.
    - Services available in India and several other countries.
    - platform utilising cloud computing to provide scalability and reliability.

- **Features of the Existing System**

    - Wide Bus Network:
        - Connecting users to thousands of bus operators which includes both government and private.
    - Multiple Ticket Booking Modes:
        - From a Website to Android/iOS application and even integration with IRCTC rail ticket booking.
    - Real-Time Bus Tracking:
        - User can track the position of the bus as well as get live updates.
    - Flexible Filters:
        - The type of seats available in different bus categories (AC vs Non-AC, Sleeper, Seater), schedule, pricing, and Rating.
    - Easy Payment Options:
        - Payment options include cards, UPI, net banking, mobile wallets, and cash on delivery.
    - Customer Support:
        - 24/7 chat, email, and phone support.
    - Ticket Rescheduling:
        - Select ticket(s) can be rescheduled free of charge up to 8 hours from the scheduled travel time.
    - Bus Timetable App:
        - Provides meticulous details of various routes, timing, and the frequency of operation.
    - Travel Insurance:
        - Optional insurance for journeys.

- **System Requirements**
  - **User Requirements**
    - Internet access to access web or mobile app.
    - Smartphone/computer with supported browser/app.
    - Valid payment method (card/UPI/wallet/netbanking).
  - **Technical Requirements**
    - Scalable cloud infrastructure for bookings with traffic (redbus uses AWS).
    - Integrated secure payment gateway.
    - Real time data processing to allow GPS on the bus.
    - Reliable customer support (chat and email and voice).
    - Protection of data in relation to user privacy and payments.
- **System Drawbacks**
  - Limited Direct Interaction:
    - Lack of physical interaction can cause confusion in seat bookings or ticket mix-ups.
  - Poor Refund Experience:
    - Customers often report slow or difficult refund processes.
  - Unreliable Customer Service:
    - Many users are unsatisfied with the quality and responsiveness of support.
  - Operator Control Issues:
    - Minimal control over third-party bus operators can lead to inconsistent service and communication gaps.

- High Competition:
  - Numerous similar platforms require continuous innovation to maintain market share.
- Potential for Overbooking/Merging:
  - Sometimes buses are merged due to low bookings, causing inconvenience and schedule changes for passengers.