

# **railway seat reservation system**

Presented by sameer shaikh

# Initialization Logic in-the System

- Sets up all seats in a clean default state when the program starts.
- Restores previous bookings from stored data so nothing is lost between runs.
- Ensures the system is ready for booking, cancellation, and display as soon as it opens.
- Provides users with an accurate seat view the moment they start the program.

# Validation Logic in the System

- Checks that seat numbers entered by the user are within the valid range.
- Stops double booking by detecting when a seat is already reserved.
- Prevents cancelling seats that are not booked, keeping data consistent.
- Gives clear error messages so users understand and correct mistakes easily.

# Validation Flow - Book Operation

User Input (Seat & Name)



Check Seat Range (1-50)?



Check Seat Available?



Booking Confirmed ✓

# Benefits of This Approach

- **Data Integrity:** Prevents invalid bookings and corrupted data
- **User Experience:** Clear error messages guide user actions
- **Persistence:** Previous bookings restored on program restart
- **Reliability:** System remains stable under all conditions

# Thank You!

Railway Seat Reservation System