

**Project Design Phase-II**  
**Data Flow Diagram & User Stories**

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<b>PROJECT NAME</b>	PROJECT – SMART SOLUTIONFOR RAILWAYS
<b>MAXIMUM MARKS</b>	2 MARKS

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<b>PROJECT NAME</b>	Project - Smart Solutions for Railways
<b>MAXIMUM MARKS</b>	4 Marks

## Data Flow Diagrams:

A Data Flow Diagram (DFD) is a traditional visual representation of the information flows within a system. A neat and clear DFD can depict the right amount of the system requirement graphically. It shows how data enters and leaves the system, what changes the information, and where data is stored.

### Example: [\(Simplified\)](#)

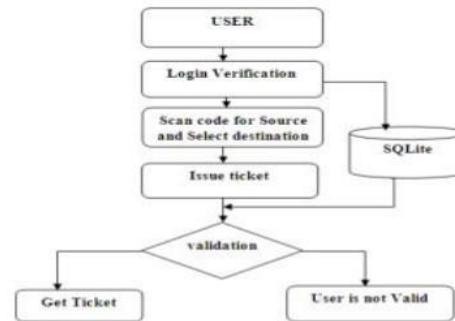
**Step 1:** The work here starts during the first time installation of our application where the user has to sign up. During sign up the basic customer information like first name, last name, date of birth, mobile no, city, state etc., will be gathered and it will be stored into MySQL database. So every time when the user buys the ticket this customer information is sent to the database for security purpose and also the ticket is generated accordingly. During sign up the username will be set as the user's mobile number or Email-id and the password will be as per the choice of the user. On the other hand if the user has an account then he can sign in directly. Thus the user can use different android phones and will not be restricted to only his phone. The above information will be sent to server with the help of internet.



**Fig 1. System Architecture**

**Step 2:** The user scan QR-code for source and select destination, number of tickets, single or return journey. Then the user is directed to the payment option. Payment can be done through prepaid services, i.e. the balance of the mobile no will be displayed along with the cost of the ticket and if the

user agrees to proceed then the equivalent 'amount' of the ticket will be deducted from the balance of the mobile no.



**Fig 2. Flow Process of Ticket Booking.**

**Step 3:** Once the customer click the buy button a code in the railway server validates the pin number and passwords, if it is successful it saves both the journey details and customer info in the server's MySQL database.

**Step 4:** The code on the server side generates the time of buy and the expiry timing of the ticket; the details are saved in the railway's MySQL database. Then Ticket no. is generated on server side, saved in the database and also sent back to the user mobile and saved in the application memory which serves as a ticket for the user.

**Step 5:** In this module the checker will enter the Ticket no. which will validate and verify the journey details from the railway database. especially the time and date of the ticket.

## Example: Data Flow Diagram for Reserving ticket

