1. Introduction

1.1 Purpose of Document

This is a Requirements Specification document for Railway Reservation System, a Mini project in Database Management System. This Project contains Introduction to Railways Reservation System. It is the computerized system of reserving seats of the train in advance. It is mainly used for long routes. This document describes the scope, objectives and goal of the new system. In addition to describing non-functional requirements, this document models the functional requirements with use cases, interaction diagrams, and class diagram. This document is intended to direct the design and implementation of the system in an object oriented language.

1.2 Project Summary

Project Name: Railway Reservation System

Project Creators: Kashish Khandelwal, Naina Nautiyal, Misba Parveen

Project Users: Passengers

1.3 Background of Project

The Railway Reservation system facilitates the passengers to enquire about trains available on the basis of source and destination, booking and cancellation of tickets, status of booked tickets etc. Passengers can book their tickets without much hassle.

1.4 Project Scope

The scope of this project is creating a system is to reduce manual error in booking and cancellation of tickets and make it convenient for customers and providers to maintain data about their customers and also about seats available to them. Due to automation many loopholes present in the system can be get rid off. The speed of obtaining and processing data will be fast. For future expansion the proposed system will be web enabled so that clients can make various enquiries about trains between stations. We design database which includes customer details, availability of trains, no. of trains and their details. It may help collecting perfect management in details.

1.5 System Purpose

1.5.1 Users

Those who will primarily benefit from the new system and those who will be affected by the new system include

Passengers:

Upon implementation of the new system, passengers will find site navigation, bookings and cancelation and enquiry easier. Passengers will be able to navigate through it easily and will be easy to see the updation and status of their tickets.

Admin:

The new system will provide admins with more detailed, accurate and up-to-date product information. They will be informed of potential customers more quickly and they can easily see the availability of seats and if there is increase of trains on a particular route.

1.5.2 Location

The system will be available to any passenger using the Internet in near future.

1.5.3 Responsibilities

The primary responsibilities of the new system:

- provide customers direct access to up-to-date, accurate information on the trains as well as seat availability status
- allow passengers to enquire about the status of their tickets
- allow passengers to enquire about their reservation
- allow customers to request the assistance of a sales agent
- Various classes are allowed through which gives multiple options to customers.

Software Requirement Specifications

The software requirement specification is produced at the culmination of analysis task. The function and performance allocated to software as part of system engineering are refined by establishing a complete information description, a detailed functional and behavourial description , an indication of performance requirements and design constraints, appropriate validation criteria and other data pertinent to requirements

The proposed system has following requirements-

- System needs to store information about new entry of Train.
- System needs to help internal staff to keep information of ticket and find them as per various queries
- System needs to maintain quality record
- System needs to keep the record of booking
- System needs to update and delete the record

2. Functional Requirements

1.User Satisfaction- The system should stand upto the user expectations and should have a user friendly interface.

2. Response Time- The response of all operation should be good which can be made possible by careful programming.

3. Error Handling- Response to user errors and undesired situations should be taken care of to ensure that system operates without halting.

4. Portable- The System should not be archietectural specific . It should be easily transferrable to other platforms if needed.

5. User Friendliness- The system is easy to learn and understand. A native user can also use the system effectively, without any difficulties.

3. Non-Functional Requirements

1. Reliability

- The system shall be completely operational for at least 90% of time
- The backup of the system should be continuously maintained and updated to reflect most changes.
- The overall project depends on the reliability of separate components.
- The overall stability of project depends on overall stability oof container and its underlying operating system

2. Availability

- The passenger should be able to access the status of his ticket and the final data of his travelling.
- The System should be available at all times , meaning the user can access it easily. The access should be restricted by the down time of server on which the system runs.
- In case of hardware failure the backup of database should be retrieved to maintain proper functioning of system.

3. Performance

- The system should be able to support simultaneous passengers.
- The system should be able to update information in database in real time

4. Security

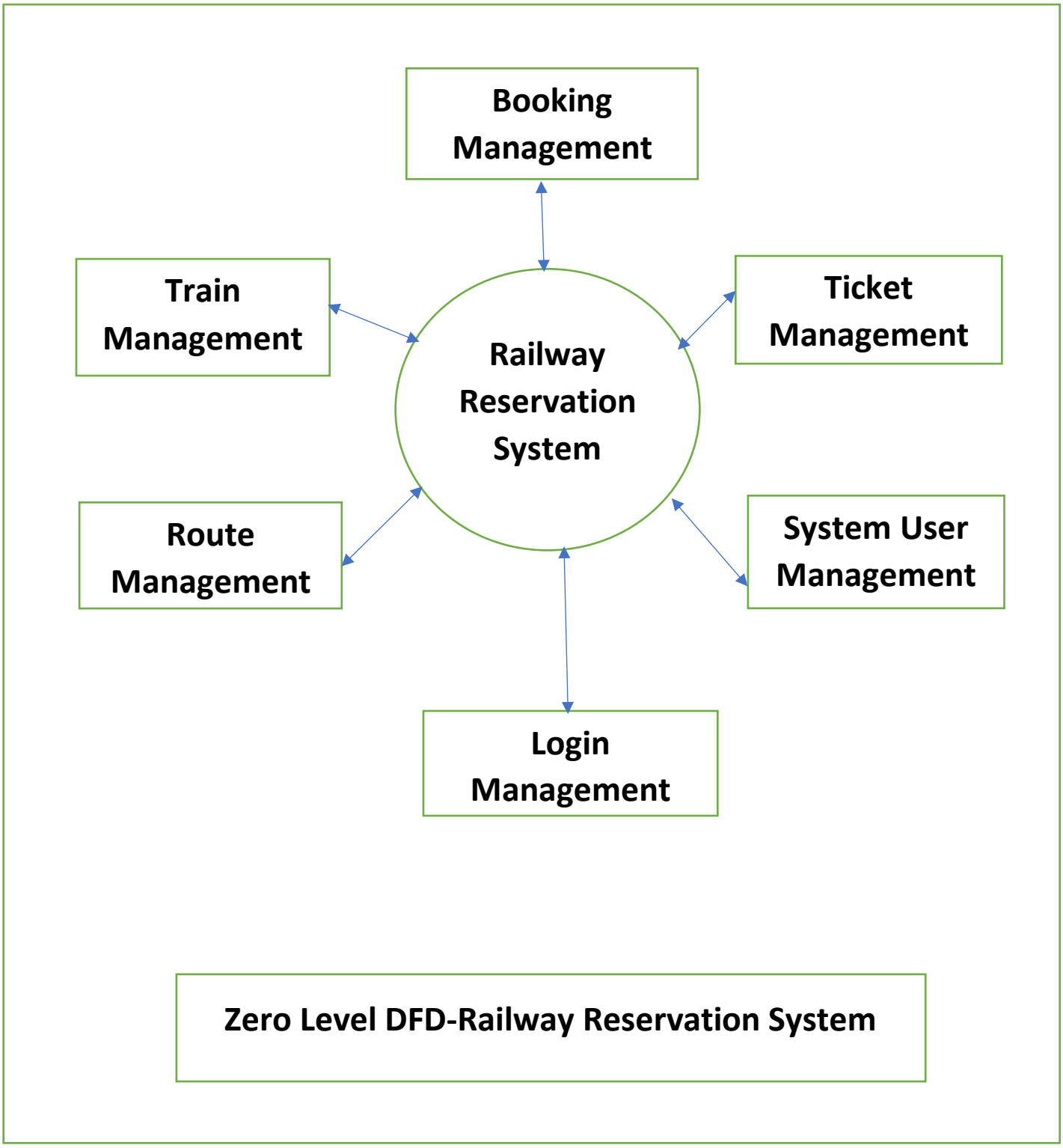
- The system shall provide protection to Passenger details and monetary information.
- Transaction data must be transmitted in encrypted form.
- The system must automatically log out all customers after period of inactivity.
- The system back end server should only be accessible to authenticated management.

5.Supportability

- The code and supporting modules of the system should be well documented.
- Easy to understand

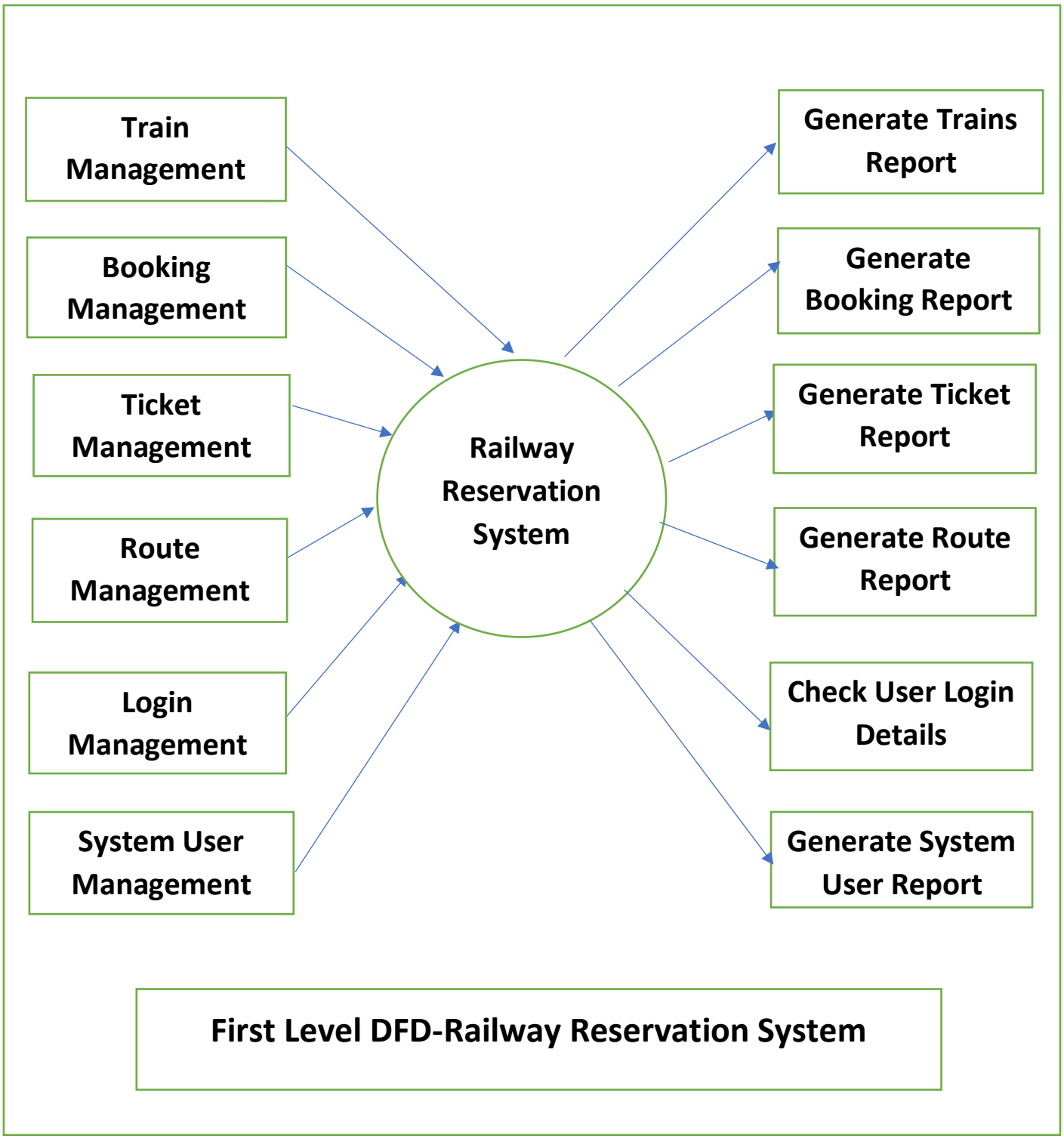
4. Data Flow Diagram

O Level DFD –

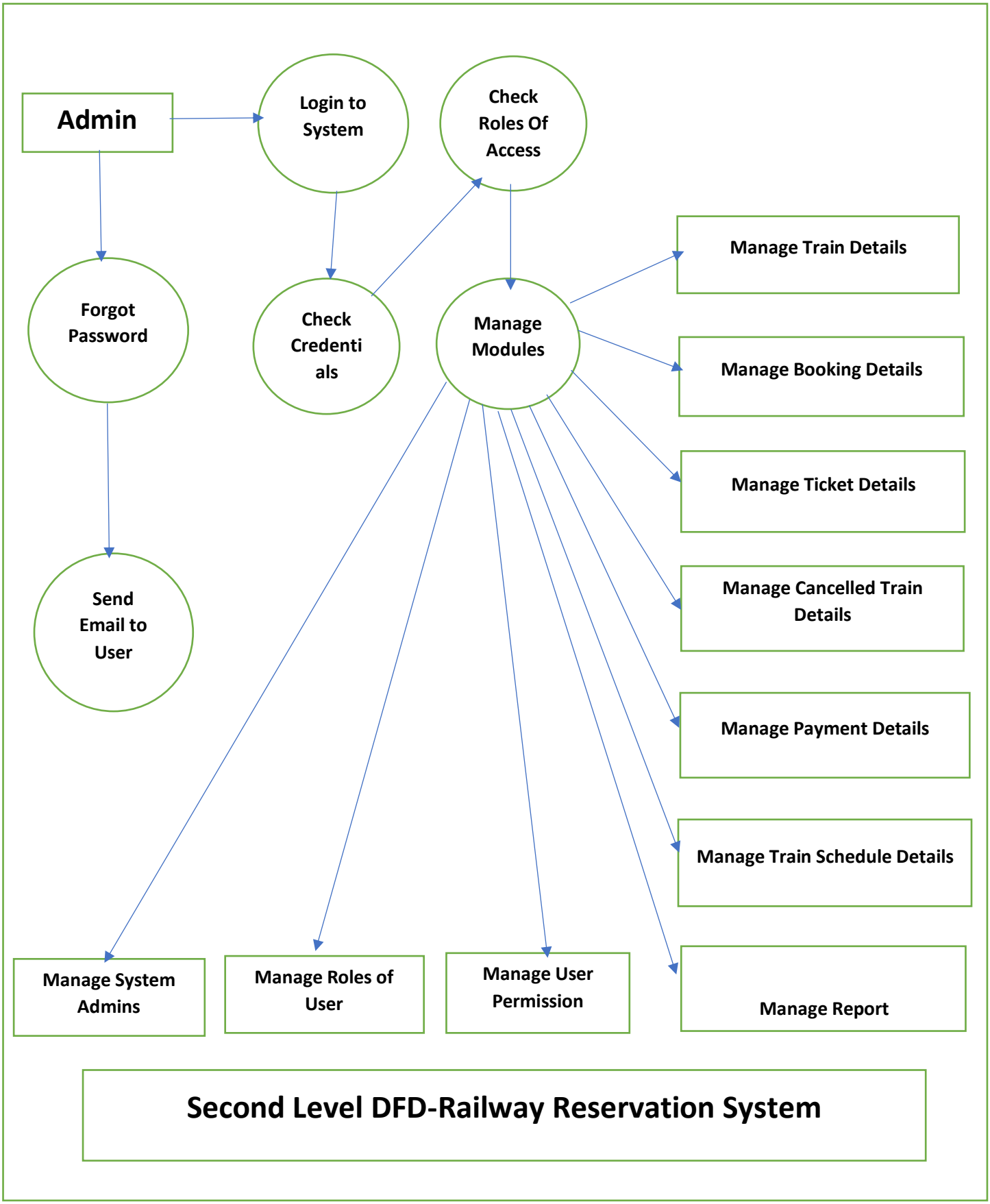


Zero Level DFD-Railway Reservation System

1 Level DFD-



2 Level DFD-



Second Level DFD-Railway Reservation System

ER Diagram

E-R diagram for Railway Reservation System