1 C). Requirement Analysis And SRS for online Railway ticket Reservation System.

OBJECTIVE

To develop software for railway reservation system with various functional and non- Functional part of design namely,

1. PROBLEM ANALYSIS AND REQUIREMENT ANALYSIS.
2. TRAIN ENQUIRY
3. TICKET GENERATION
4. TICKET CANCELLATION

The ultimate goal of this project is to develop a database that integrates the process of the Reservation of railway

INTRODUCTION

The purpose of this source is to describe the railway reservation system which provides the train timing details, reservation, billing and cancellation on various types of reservation namely,

1. Confirm Reservation for confirm Seat.
2. Reservation against Cancellation.
3. Waiting list Reservation.
4. Online Reservation.
5. PNR Generation

TECHNOLOGY USED

1. USER INTERFACE:

- Keyboard and Mouse

2. HARDWARE REQUIREMENT:

- Printer
- Normal PC
- CPU – Intel Core 2 Duo E7300
- RAM – 512MB (MIN)
- Hard Disk – 80GB

3. SOFTWARE REQUIREMENT:

- Turbo C++, C

4. OPERATING ENVIRONMENT:

The OS used are

- Windows 97
- Windows XP

INTENDED AUDIENCE:

The different types of readers are

1. Developers
2. Customers
3. Management people specifically,
4. Passengers
5. Clerk

DEFINITIONS, ACRONYMS AND ABBREVIATIONS

1. NTES – National Train Enquiry System
2. IVRS – Interactive Voice Response system
3. PRS – passenger reservation system

   It consists of

   - Train details
   - Reservation form
   - Billing
   - Cancellation.

GENERAL DESCRIPTION It enables us to maintain the railway train details like their timings, number of seat available and reservation billing and cancelling the tickets.

COMMUNICATION INTERFACES

- Indian Railway's web-site, www.indianrail.gov.in offers PRS enquiries on the internet Berth/Seat availability, Passenger Status, Fare, Train Schedule etc,.
- National Train Enquiry System (NTES) website, www.trainenquiry.comgives dynamic information about the running status of any train and its expected arrival/departure at any given station.
- Mobile telephone based SMS enquiry service. A new mobile phone based facility for rail users' which is. Country wide extension of Universal Rail Enquiry number "139"through setting up of Interactive Voice Response System (IVRS).

OPERATIONS

1. Any Reservation counter from 8 am to 8 pm.
2. Prior to 90 days of Journey.
3. One form for 6 persons only.
4. To save time & queues Agent is others guides.

PRODUCT FUNCTION

- It tells the short note about the product.

TRAIN DETAILS

- Customers may view the train timing at a date their name and number of tickets.
- Passengers operated Enquiry Terminals.

PERFORMANCE REQUIREMENTS

- It is available during all 24 hours.
- Offered through Mail express, super-fast, Rajdhani & Shatabdi Trains.
- About 1520 Trains runs daily.

Variety of compartments based on comfort:

4. AC first class.
5. AC sleeper.
6. First class.
7. AC three tier.
8. AC chair car.
9. Sleeper class
10. Ordinary chair car.

Types of concerns & complexities:

11. 44 types of quotas.
12. 8 types of trains.
13. 9 types of classes.
14. 162 types of concessions.
15. 127 types of bogies

SOFTWARE SYSTEM ATTRIBUTES:

16. Reliable
17. Available
18. Secure

DOCUMENT APPROVAL

The bill passed on any proposals related to railway management needs approval of Ministry of railway department.

Conclusion: The Requirement Analysis and SRS was made successfully by following the steps described above.

Draw E-R Diagram for OnlineTicket Reservation system.

This ER (Entity Relationship) Diagram represents the model of Ticket Reservation System Entity. The entity-rela tionship diagram of Ticket Reservation System shows all the visual instrument of database tables and the relations between Seats Availability, Stations, Trains, Passengers etc. It used structure data and to define the relationships between structured data groups of Ticket Reservation System functionalities. The main entities of the Ticket Re servation System are Trains, Seats Availability, Fare, Stations, Booking and Passengers.

Ticket Reservation System entities and their attributes:

• Trains Entity: Attributes of Trains are train_id, train_name, train_number, train_seat_number, train ticket, train_type, train_description

• Seats Availability Entity: Attributes of Seats Availability are seat_id, seat_train_id, seat customer_id, seat_number, seat_type, seat_description

• Fare Entity : Attributes of Fare are fare_id, fare_ticket_id, fare_title, fare_type, fare_description • Stations Entity: Attributes of Stations are station_id, station_name, station_type, station_description

• Booking Entity: Attributes of Booking are booking_id, booking_ticket_id, booking_title, booking_type, booking_date, booking_description

• Passengers Entity: Attributes of Passengers are passenger_id, passenger_name, passenger_mobile, passenger_email, passenger_username, passenger_password, passenger_address

Description of Ticket Reservation System Database: • The details of Trains is store into the Trains tables

respective with all tables

• Each entity (Passengers, Fare, Booking, Seats

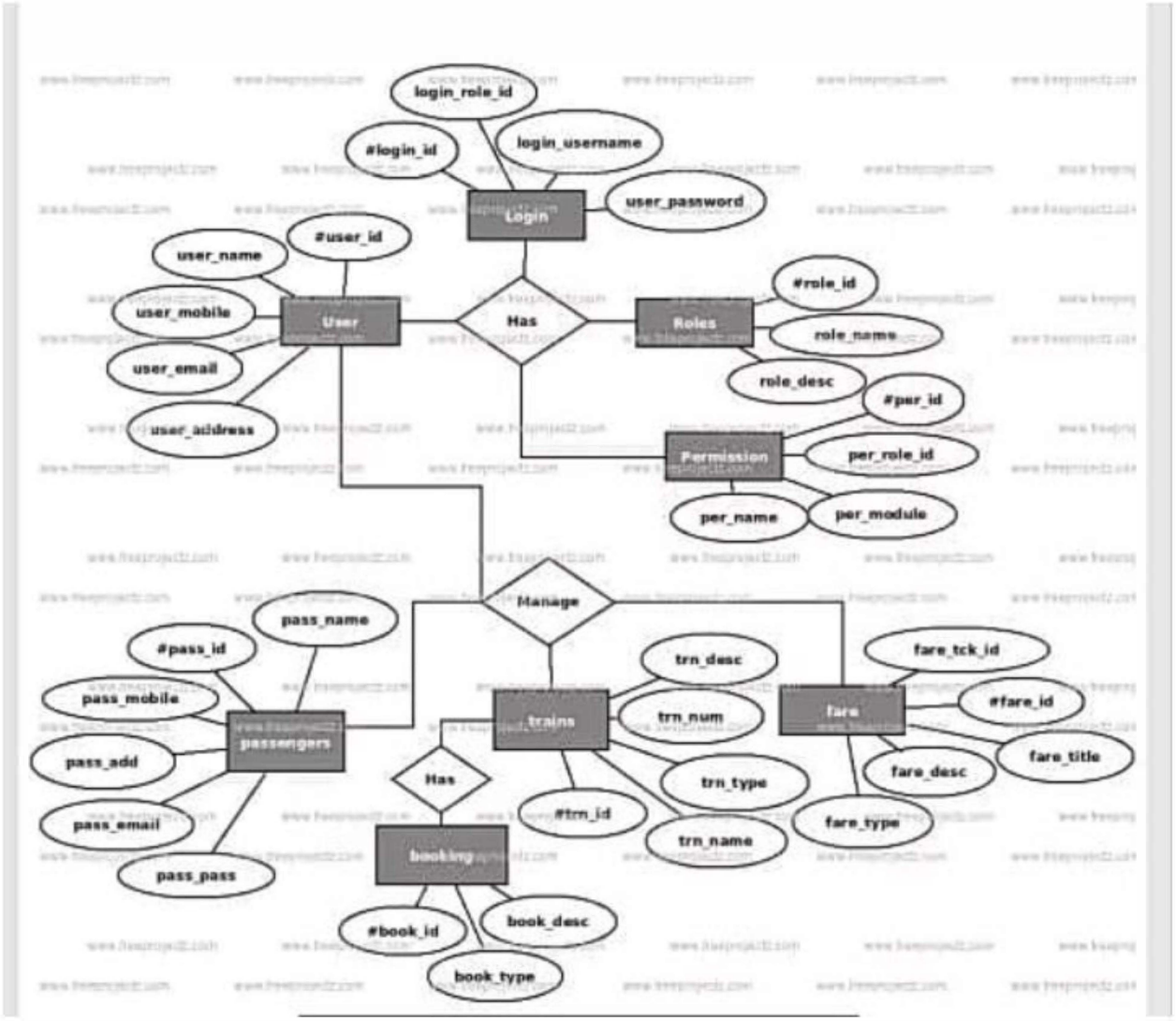
Availability, Trains) contains primary key and unique keys.

• The entity Fare, Booking has binded with Trains, Seats Availability entities with foreign key

• There is one-to-one and one-to-many relationships available between Booking, Stations, Passengers, Trains

. All the entities Trains, Booking, Fare, Passengers are normalized and reduce duplicacy of records

• We have implemented indexing on each tables of Ticket Reservation System tables for fast query execution.



Draw DFD for OnlineTicket Reservation system.

Ticket Reservation System Data flow diagram is often used as a preliminary step to create an overview of the Ticket without going into great detail, which can later be elaborated.it normally consists of overall application data flow and processes of the Ticket process. It contains all of the userflow and their entities such all the flow of Trains, Seats, Fare, Stations, Booking, Passengers, Ticket. All of the below diagrams has been used for the visualiza tion of data processing and structured design of the Ticket process and working flow.

Zero Level Data Flow Diagram (0 Level DFD) Of Ticket Reservation System :

This is the Zero Level DFD of Ticket Reservation System, where we have eloborated the high level process of Ticket. It's a basic overview of the whole Ticket Reservation System or process being analyzed or modeled. It's designed to be an at-a-glance view of Booking,Passengers and Ticket showing the system as a single high-level process, with its relationship to external entities of Trains,Seats and Fare. It should be easily understood by a wide audience, including Trains,Fare and Booking In zero leve DFD of Ticket Reservation System, we have described the high level flow of the Ticket system.

High Level Entities and proccess flow of Ticket Reservation System:

• Managing all the Trains • Managing all the Seats

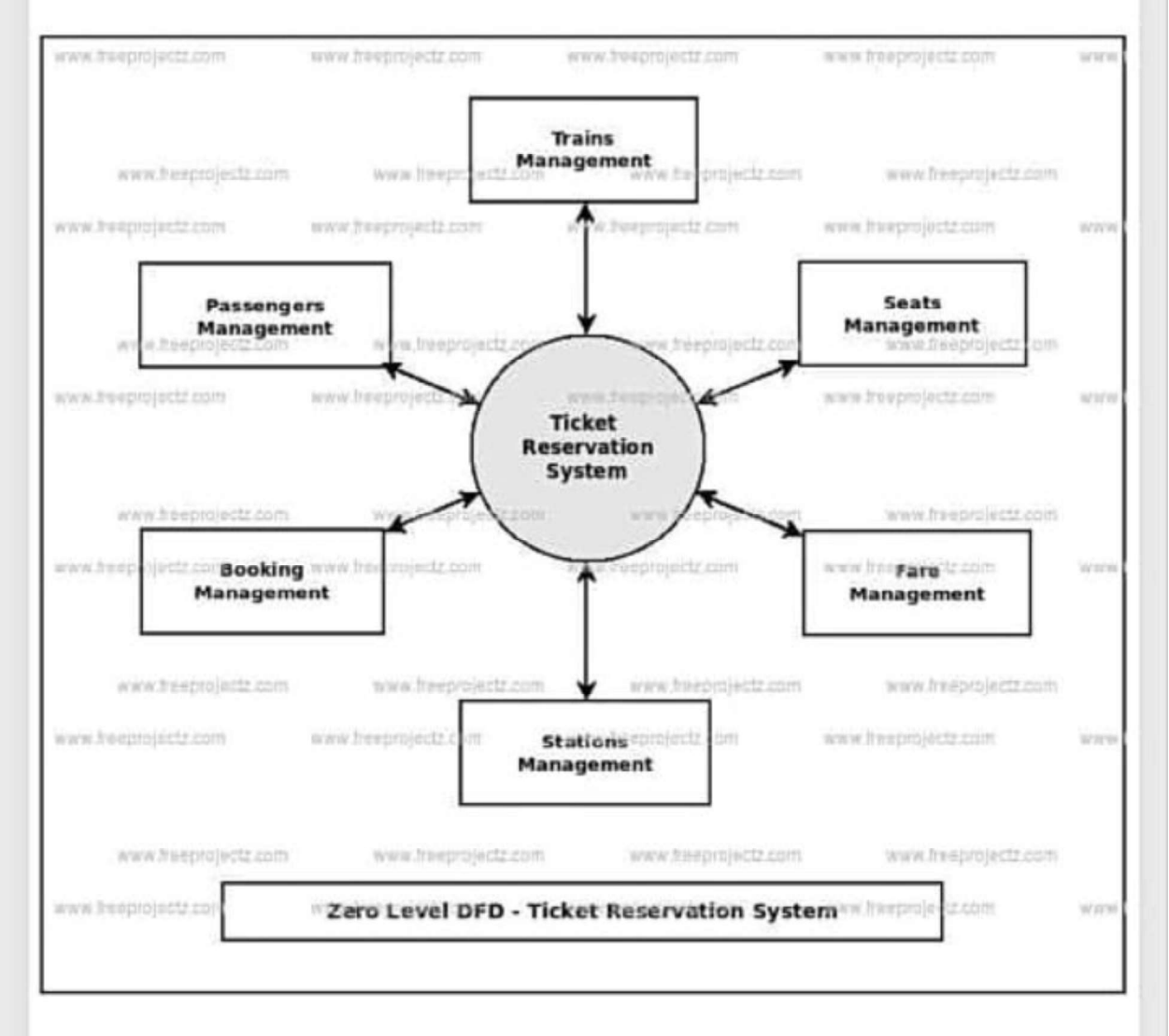
• Managing all the Fare

Managing all the Stations

• Managing all the Booking

Managing all the Passengers

Managing all the Ticket



First Level Data Flow Diagram(1st Level DFD) Of Ticket Reservation System :

First Level DFD (1st Level) of Ticket Reservation System shows how the system is divided into sub-systems (processes), each of which deals with one or more of the data flows to or from an external agent, and which together provide all of the functionality of the Ticket Reservation System system as a whole. It also identifies internal data stores of Ticket, Passengers, Booking, Stations, Fare that must be present in order for the Ticket system to do its job, and shows the flow of data between the various parts of Trains, Fare, Passengers, Ticket, Booking of the system, DFD Level 1 provides a more detailed breakout of pieces of the 1st level DFD. You will highlight the main functionalities of Ticket.

Main entities and output of First Level DFD (1st Level DFD):

• Processing Trains records and generate report of all Trains

• Processing Seats records and generate report of all

Seats

• Processing Fare records and generate report of all

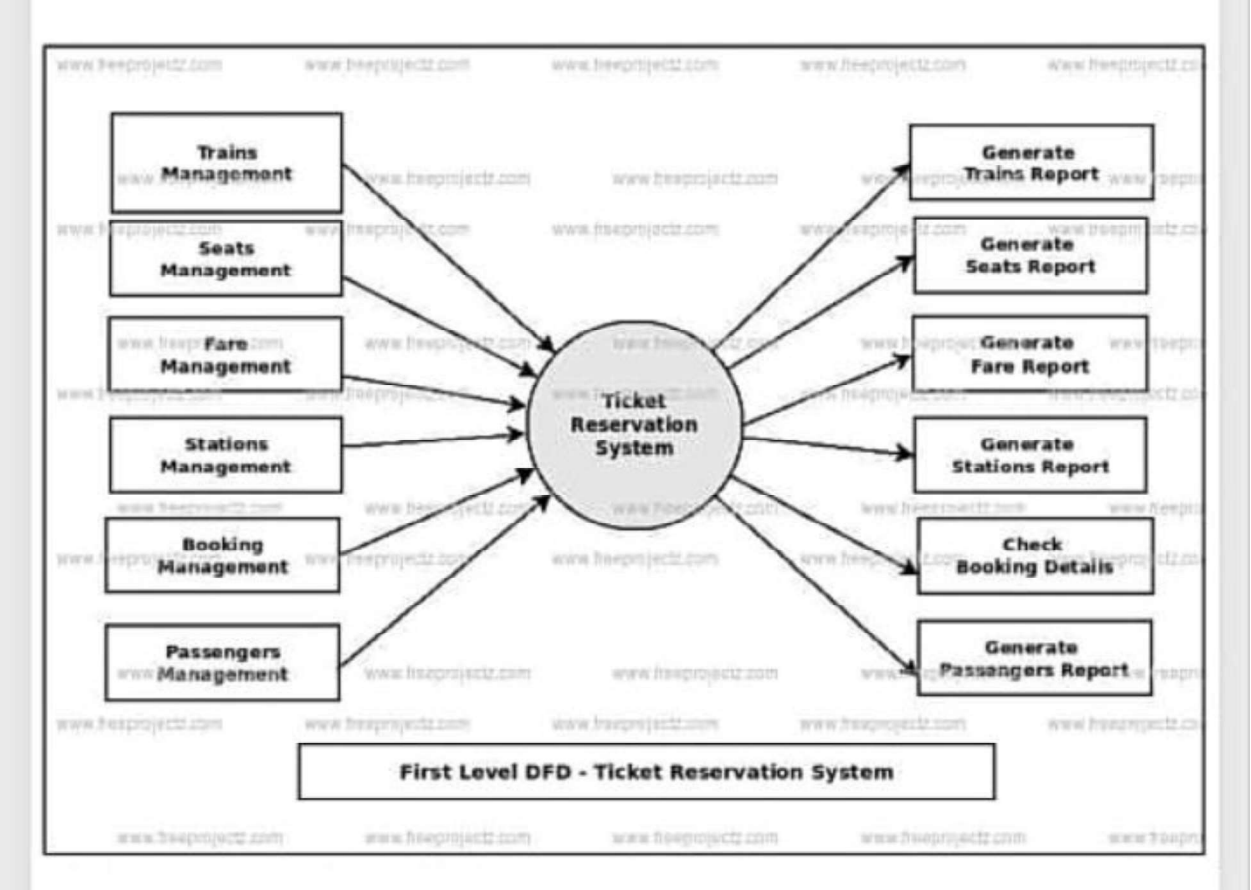
Fare

• Processing Stations records and generate report of all Stations • Processing Booking records and generate report of all

Booking

• Processing Passengers records and generate report of all Passengers

• Processing Ticket records and generate report of allTicket



Second Level Data Flow Diagram (2nd Level DFD) Of Ticket ReservationSystem:

DFD Level 2 then goes one step deeper into parts of Level 1 of Ticket. It may require more functionalities of Ticket to reach the necessary level of detail about the Ticket functioning. First Level DFD (1st Level) of Ticket Reservation System shows how the system is divided into sub-systems (processes). The 2nd Level DFD contains more details of Ticket, Passengers, Booking, Stations, Fare, Seats, Trains.

Low level functionalities of Ticket Reservation System

• Admin logins to the system and manage all the

functionalities of Ticket Reservation System

• Admin can add, edit, delete and view the records of Trains, Fare, Booking, Ticket

• Admin can manage all the details of Seats, Stations,

Passengers • Admin can also generate reports of Trains, Seats, Fare,

Stations, Booking, Passengers

• Admin can search the details of Seats, Booking, Passengers

• Admin can apply different level of filters on report of

Trains, Stations, Booking • Admin can tracks the detailed information of Seats,

Fare, Stations,, Booking