MINI PROJECT

ON

RAILWAY RESERVATION SYSTEM

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CHAPTER-1

1.1 Project Title

Railway Reservation System

1.2 STATEMENT: To design and develop a c project which facilitates the users to check availability of trains, book the tickets; view/print the reserved ticket details.

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2.1 Project Description

Railway Reservation involves booking of train tickets according to the requirement of the user. This system helps users in choosing between reserving a ticket,viewing all the available trains.

2.2 Introduction

This system is basically concerned with the reservation of railway tickets to the passengers. The need of this system arose because as is the known fact that India has the largest railway network in the whole of the world and to handle it manually is quite a tough job. The long distance road network is very poorly developed in most parts of India. Bulk of long distance traffic is carried by the Indian Railway as a result Indian railways. Therefore forms a backbone of public transport in India. The efficiency of the railway will increase as a result of computerization due to dramatic reduction in communication time among geographically dispersed offices. For the reservation of the ticket a person goes to the ticket counter of the railway reservation office and spends its valuable time standing in a queue. Now to save that time we have a facility of Online Reservation now we can book cancel or search other train information just by click on computer.

2.3 Need of proposed system

- To reduce complexity of existing systems.
- Effective management of time.
- To make work easy, simple and error free.
- Effective utilization of available resources.
- To enhance the efficiency and diversification of services activities.
- User friendly.

CHAPTER-3

3.1 Requirements

3.1.1 Functional Requirements

- **Login:** Users must login to the system by providing valid details like name and password.
- **Check Availability:** Users can check the availability of trains where the details of trains like train number, destination, fare charges etc are specified.
- **Reservation:** Passengers can go for registration of tickets by providing specific train details like train number, number of seats etc.
- **View or Print ticket:** Once the ticket reservation is done, the user can view or print the ticket.

3.1.2 Non-Functional Requirements

- **Usability:** The system shall respond to the users in a quick and responsive manner.
- **Reliability:** It provides the user with updated information on train availability, fare charges etc.
- **Efficiency:** The system is efficient and takes very less time for response.

3.2 Software Requirements

- Programming Language: C Programming
- Operating System: Windows xp onwards
- Compiler: Code blocks

3.3 Hardware Requirements

- RAM : 4 GB
- Processor : Pentium and more
- Speed : 2.5 GHz
- Hard Disk Drive : 500 GB

CHAPTER-4

4.1 Research:

Widespread use of Internet has led to the emergence of a variety of electronic services, e-services (e.g. e-ticket, e-payment, e-commerce, e-learning etc.)Electronic ticket, or e-ticket, is an example of such a class of e-services. E-tickets give evidence to their holders to have permission to enter a place of entertainment, use a means of transportation, or have access to some Internet services. Users can get the e-tickets by purchasing them from a web server, or simply receiving from a vendor, or from another user who previously acquired them. E-tickets can be stored in desktop computers, smart phones or personal digital assistants for future use. For some cases, E-tickets are non transferable example airline e-ticket, it has to be validated to prevent duplication, and ensure authenticity and integrity. A user first has to relay it to the server for validation before using an e-ticket.

The Online reservations system was one of the earliest changes to improve efficiency in the transport industry. The Transport Reservation System eventually evolved into the computer reservations system (CRS). Train Reservation System (TRS) is a computerized system used to store and retrieve information and conduct transactions related to Rail travel. The system was originally designed and operated by airlines, but was later extended for the use of other transportation means.

Major online reservation system operations that book and sell tickets for multiple transport industries are known as Global Distribution Systems (GDS). Transportation industry has divested most of their direct holdings to dedicated GDS companies, who make their systems accessible to consumers through Internet gateways. Modern Global Distribution Systems typically allow users to book hotel rooms and rental cars as well as airline tickets.

Modern Global Distribution Systems typically allow users to book hotel rooms, rental cars, airline tickets as well as train tickets. Global Distribution Systems (GDS) is a worldwide computerized reservation network used as a single point of access for reserving train tickets,

airline seats, hotel rooms, rental cars, and other travel related items by travel agents, online reservation sites, and large corporations. The premier global distribution systems are Amadeus, Galileo, Sabre, and World span. They are owned and operated as joint ventures by major rail companies, airlines, car rental companies, and hotel groups.

Types of Reservations In Reservation System

a. Guaranteed Reservation: This ensures that the company will hold an item for the customer until a specific time following the customer's scheduled date. In return, the customer shall guarantee his/her reservation of an item unless reservation is properly cancelled. In order to guarantee a reservation, customers might opt for one of the following methods.

- Prepayment guaranteed reservation
- Credit card guaranteed reservation.
- Advance deposit or partial payment
- Travel agent guaranteed reservation

b. Non Guaranteed Reservation: Insures that the company agrees to hold an item for the customer until a stated reservation cancellation hour on that day. A reservation agent always makes sure to encourage their customers to guarantee their reservations especially in the high season.

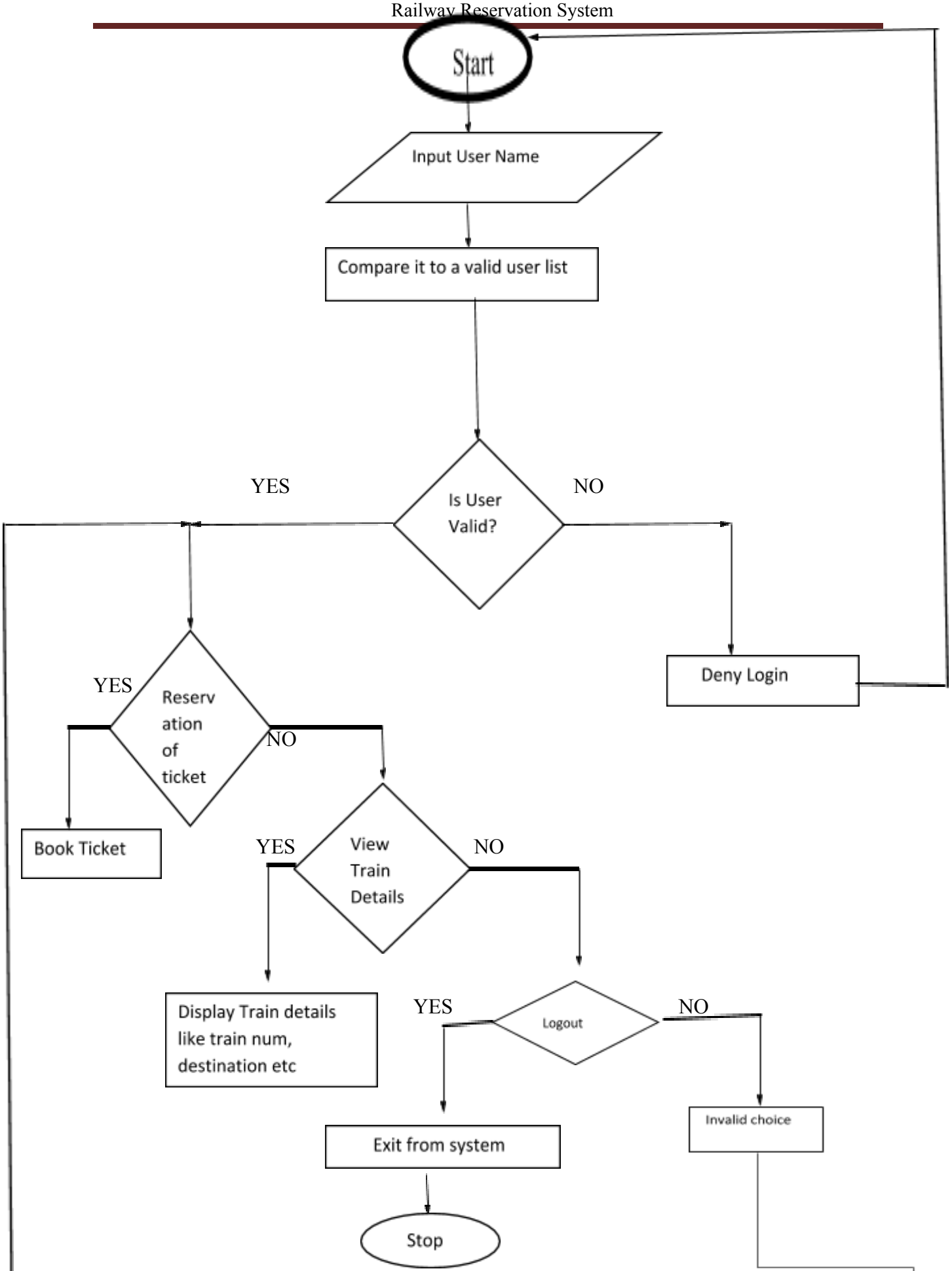
However, the intended system will use the guaranteed Reservation, Where reservations are guaranteed only when a customer makes payment on the site or at the train station.

CHAPTER-5

5.1 Design & Flow Chart

Here are few steps which can give us the overview of the following flow chart:

1. System starts by taking input of the user i.e., username.
2. If the entered username is valid then the user is redirected to the homepage where there are few options which he/she can choose.
3. If the entered username is invalid then they will be redirected to the login page again.
4. The options are to make reservations, view details of trains or logout of the system.
5. If a user chooses an invalid option then he/she is again redirected to homepage to choose a valid option.
6. Once the user chooses the reservation option, required details of the train will be given and asked to book a ticket.
7. If a user chooses to view details of trains then all the train details like name, train number, destination,time etc will be displayed.
8. In the same way if a user chooses to logout, the system stops its function.


Start
Input User Name
Compare it to a valid user list
Is User Valid?
YES
NO
Deny Login
Reserv ation of ticket
YES
NO
Book Ticket
View Train Details
YES
NO
Display Train details like train num, destination etc
Logout
YES
NO
Exit from system
Invalid choice
Stop

CHAPTER-6

6.1 Test Cases:

Test-01: This test case would check for a valid Username and password in the Login function. If any of the username or password is invalid then the "**LOGIN UNSUCCESSFUL**" message will be displayed.

Test-02: This test case would check availability of Trains. The passenger can search for their Train and via online catalogue, whether Train is available or not available

The reservation system menu will be displayed. The details about the Trains will be displayed.

The System displays the list of available Trains. Then Passenger selects one Train from list

Test-03: This test case would ask for valid information of the train for confirmation of ticket. The reservation system menu will be displayed. The details about the trains will be displayed. Passenger asks to view the menu for details of a Train. The system displays the menu of available trains. Then the reservation process completes.

Test-04: The passenger can book Train Tickets using an online catalogue. The passenger can confirm train tickets. The System displays available Train name, source and destination details, and date. When the passenger wants to view the menu for a specified date. System displays available Train name, source and destination details, date.

CHAPTER-7

7.1 Expected Output

- It is easy to access and time saving.
- Users can book and view the reserved ticket at fingertips.
- Rather than designing manually we have made use of a computer which performs accurate function.
- There is no chance of fault or miscalculation if the data is fed correctly.

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CHAPTER-8

8.1 References

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