Software Requirements Specification

for

Railway Reservation System[RRS]

Version 1.0 approved

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Revision History

Name	Date	Reason For Changes	Version

1. Introduction

1.1 Purpose

1.1.1 The purpose of the SRS is to describe the requirements invloved in developing a Railway Reservation system(RRS).
1.1.2 The intended audience is any person who wants to reserve or cancel tickets to check the availability of Railway tickets.

1.2 Scope

1.2.1 The product is titled Railway Reservation system (RRS).
1.2.2 The product will perform the following tasks
1.2.2.1 The software that is being developed can be used to check the availability of the railway tickets for the specified train,destination and date of journey.
1.2.2.2 If the tickets are available to the users needs and specification,then the software provide a facility to book the tickets.
1.2.2.3 If the passengers wants to cancel the tickets, he can use the cancellation module of the Airline Reservation System.

1.3 Definitions

1.3.1 Train Details
1.3.1.1 Customer may view the train timings at a date, their name and number of tickets.
1.3.2 Reservation
1.3.2.1 After checking the number of seats available the customers reserve the tickets.
1.3.3 Billing
1.3.3.1 After reserving the required amount of tickets ,the customer paid the amount.
1.3.4 Cancellation
1.3.4.1 If the customer wants to cancel the ticket , then half of the amount paid by the customer will be refunded to him

1.4 Overview

1.4.1 The SRS contains an analysis of the requirements necessary help easy design
1.4.2 The overall description provides interface requirements for the Railway Reservation system, product perspective, hardware interfaces software interfaces, communication interface, memory constraints, product functions, user characteristics and other constraints.
1.4.3 Succeeding pages illustrate the characteristics of typical naive users accessing the system along with legal and functional constraints enforced that affect Railway Reservation system in any fashion.

2. General Description

2.1 Product Perspective

2.1.1 Hardware Interface
- 2.1.1.1 Hard disk: The database connectivity requires a hardware configuration with a fast database system running on high rpm hard-disk permitting complete data redundancy and back-up systems to support the primary goal of reliability.
- 2.1.1.2 The system must interface with the standard output device, keyboard and mouse to interact with this software.

2.1.2 Software Interface
- 2.1.2.1 Name Of the languages used : C++
- 2.1.2.2 Database System : MySQL

2.1.3 Communication Interface
- 2.1.3.1 Internet is used for client server communication
- 2.1.3.2 The Indian Railway website offers enquiries on the Berth/Seat availability ,Passenger status , fare , train schedule, etc.
- 2.1.3.3 Mobile telephone based SMS enquiry service .

2.2 Product Functions

2.2.1 Viewing Train details
- 2.2.1.1 The user must have up to date information about train including
  - 2.2.1.1.1 Train Number
  - 2.2.1.1.2 Train Name
  - 2.2.1.1.3 Train Route (Start and Destination Route)

2.2.1.1.4 Train Timings
2.2.1.1.5 Seat Availability
2.2.2 Reserving Tickets
2.2.2.1 The user must be able to reserve tickets after selecting train name or train route and date of travel.
2.2.2.2 The Product is absolutely user friendly, so the intended users can be travel.
2.2.3 Cancelling Tickets
2.2.3.1 The user must be able to cancel tickets that he has reserved earlier by quoting the ticket number,credit card number and bank name.

2.3 User Characterstics

2.3.1 The intended users of this software need not have specific knowledge as to what is the internal operation of the system. Thus the end user is at a high level of abstraction that allows easier, faster operation and reduces the knowledge requirement of end user.
2.3.2 The Product is absolutely user friendly, so the intended users can be the naive users.
2.3.3 The product does not expect the user to possess any technicalbackground. Any person who knows to use the mouse and the keyboard can successfully use this product.

2.4 Operating Environment

The OS types are

- Windows
- Linux
- Mac OS

2.5 Design and Implementation Constraints

TBD

3. External Interface Requirements

3.1 User Interfaces

The interface requirements of the railway reservation system include

3.1.1 Easy to Navigate.
3.1.2 Less Graphics .
3.1.3 Providing high security such that not to be modified by irrelevant users.
3.1.4 Proper error message is displayed if exceptions occurs.

3.2 Hardware Interfaces

3.2.1 Software takes input from keyboard of user.
3.2.2 Software allows user to print reservation through printers.

3.3 User Requirements

3.3.1 After a brief study of requirements of clients , the requirements of this system is given as follows :

3.3.1.1 Login Information

3.3.1.2 Reservation details

3.3.1.3 Train details availability of the railway tickets for the specified train, destination and date of journey.

4. System Features

4.1 Functional Requirements

4.1.1 Provide details of trains on selected date and allow user to choose source, destination and make reservation.

Input: Firstly,user needs to login with password.User must enter destinations with date and give personal details for reservations and payment.
Processing: Check availability and recognize correct details.
Output: Show proper message about successful or error and allow user to print bookings.

4.1.2 Allow user to modify or cancel reservation.

Input: User must enter details of reservation which he/she wants to modify or cancel, and enter password again.
Processing: Check if reservation was valid and modification is allowed.
Output: Show proper message.If cancelled successfully,refund should be made.

5. Other Nonfunctional Requirements

5.1 Reliability

5.1.1 User input should be valid and login of user should be secured to ensure reliability.

5.2 Security

5.2.1 Reservation and modification should be allowed after proper login.

5.2.2 Network security is ensured by firewall.

5.3 Maintainability

5.3.1 If there are bugs or crashes administrator should fix it immediately by contacting developers.

Appendix A : Glossary

Word	Meaning
SRS	System Requirement Specifications
RRS	Railway Reservation System
SMS	Short Message Service
TBD	To Be Decided