Problem Statement

Online railway reservation is an efficient way to reserve tickets not by standing in the railway station queue. Now all railways has their own website for online reservation provide better customer service. The manual filling of reservation form cannot be changed once the details had been entered. The goal of online railway reservation is easing the tedious task of railway activity. Initially the customer has to create an ID in the appropriate website, so that the user can log into the system for doing further activities. An online manager will maintain a database. To do login process the customer has to fill a registration form that contains the username. password, first name and last name etc. After submitting the form to the server a customer ID is created with username and password thereby the customer with only the appropriate ID can reserve the tickets

Software Requirement Specification(SRS)

1 Introduction:

1.1 **Purpose of this Document:** The purpose of Railway Reservation system is to automate the existing manual system by the help of computerized equipments and full fledged computer software, fulfilling their requirement, so that their valuable or information can be stored for a longer period with easy accessing and manipulating of the same . The required software and hardware are easily available and easy to work with.

1.2 **Scope of this document** – The Railway Reservation System is designed to serve the needs of railway department employees, from viewing available seats to booking seats. The system will be web-based and accessible through desktop and mobile devices.

1.3 **Overview** – Railway Reservation System is a system that provides us with reserving seats, checking whether the seats are vacant or not etc by using online browsing. This system is very useful to all, especially for business people.

2 General description:

Railway Reservation System is a railway seat reservation site script where site users will be able to search seats availability with an online booking reservations system. Site users can also browse available trains for a particular destination, view seats inventory, check availability, and book reservations in real-time. Site users enter departure date, then search for availability and rates. After choosing the right seat in the wanted train– all booking and reservation process is done on the site and an SMS is sent to confirm the booking.

3 Functional Requirements:

Performance requirements:

- User Satisfaction: - The system is such that it stands up to the user expectations.
- Response Time: -The response of all the operation is good. This has been made possible by careful programming.
- Error Handling: - Response to user errors and undesired situations has been taken care of to ensure that the system operates without halting.

- Safety and Robustness: - The system is able to avoid or tackle disastrous action. In other words, it should be foul proof. The system safeguards against undesired events, without human intervention.
- Portable: - The software should not be architecture specific. It should be easily transferable to other platforms if needed.
- User friendliness: - The system is easy to learn and understand. A native user can also use the system effectively, without any difficulties.

4 Interface Requirements:

User Interface : User Interface must be compatible for all type web browsers such as Google chrome , Safari Browser , Internet Explorer etc.

Software Interfaces :

Web server - Apache
Database server - MongoDB
Development end -Java , HTML , JavaScript,.CSS.

5 Performance Requirements:

The collection of internal electronic circuits and external physical devices used in building a computer is called the Hardware. The minimum hardware requirement specifications for developing this project are as follows:
Processor :

Standard processor with a speed of 1.6 GHz

RAM : 256 MB RAM or more

Hard Disk : 20 GB or more

Monitor : Standard color monitor.

6 Design Constraints:

The following are the constraints of the Railway Reservation System:

The system must comply with local laws and regulations regarding data privacy and security.

The system must integrate with the railway's existing hardware and software systems, such as the scheduling management system and accounting software.

7 Non-Functional Attributes:

- Security: The system will use secure encryption and data protection methods to ensure guest and hotel data is kept confidential and safe.
- Scalability: The system will be able to handle high traffic and scale up or down depending on demand.
- Usability: The system will be user-friendly and intuitive, with clear instructions and minimal training required for hotel staff and guests.
- Performance: The system will be fast and responsive, with minimal downtime or lag time.
- Compatibility: The system will be compatible with major web browsers and mobile devices.

Preliminary Schedule and Budget:

Preliminary Schedule:

Requirements gathering and analysis: 1-2 weeks

System design and architecture: 2-4 weeks

Development and testing: 10-16 weeks

Integration and deployment: 2-4 weeks

Training and user acceptance testing: 2-4 weeks

Total: 17-30 weeks (approximately 4-7 months)

Preliminary Budget:

Requirements gathering and analysis: $5,000 - $10,000

System design and architecture: $10,000 - $20,000

Development and testing: $50,000 - $100,000

Integration and deployment: $10,000 - $20,000

Training and user acceptance testing: $5,000 - $10,000

Total: $80,000 - $160,000 (approximately)