# Railway Reservation System

## Problem Statement:

The railway system is facing issues such as long queues, limited seat, availability and manual processes for cancellations and refunds. Thus
There is a need to develop an efficient online system that can handle large number of bookings

## Introduction:

Purpose: The purpose of this document is to provide a detailed description of Railway reservation system

Scope: The scope of a railway system consists of
- Online reservation and booking, payment, schedule and status updates.
- Seat allocation and management.

Overview: The railway reservation system focus handles the automation of all the important tasks required to manage a railway reservations

## General Description:

The system that is hereby mentioned in the document shall handle all the important tasks related to railway reservation system in an automated manner.

Functional requirements:

User registration and login
Train schedule availability search
Seat reservation and booking
Payment Processing

Non Functional requirements:

Security: (user authentication, data encryption and secure payment Processing)

~~Interface~~ Compatibility requirements: Operating systems, browsers and devices

Usability requirements: User friendly design, intuitive navigation

Performance Requirements:

Response time: should be less than 5s

~~Scalability~~ load limit: Should respond to a 20% increase in the maximum load threshold

~~load testing~~:
Scalability: The system should be easily scalable

~~Interface~~

Interface Requirements:

UI: UI: Easy navigation, layout forms and interaction are mandatory.

Accessibility and Language: Should be easily used by partially abled people and those speaking all the main languages.

Design Constraints:

The system shall be designed to run on standard hardware configurations that are commonly available in the market

Software constraints: The system shall be designed to operate within commonly available platforms

Preliminary Budget and schedule:

Planning Phase: 5 weeks: $70 000

Design Phase: 6 weeks: $100 000

Development Phase: 10 weeks: $150 000

Maintenance phase: $250 000/year.

Total: $570,000