Requirement Analysis

Railway Reservation System

Introduction

The Project deals with the automation of the reservation and enquiry of the railway reservation system. The main objective of the project is to manage the details of train, ticket booking, view the details of the passengers, available seats for the passengers, available trains for the particular route. It will track all the details about the booking, passengers and the train schedules.

It maintains all information starting from reservation to cancellation of tickets. It also acts as an enquiry system about the different trains available. This project aimed at the job simplification and reducing the manual work and hereby saving the time of physical visiting the railway stations.

Purpose

The System deals with booking and the cancellation of railway tickets to the users.

System Analysis (Research):

This system is basically concerned with the reservation and cancellation of the railway tickets to the passengers. The need of the system arise because as is the known fact that the India has the largest railway network in the whole of the world and to handle it manually is quite tough job. By computerizing it we will be able to overcome many of its limitations and will be able to handle it more efficiently. The handling of such records and data for such system is a very complex task if it is done manually but it can be made much easier if the system is computerized.

System Features:

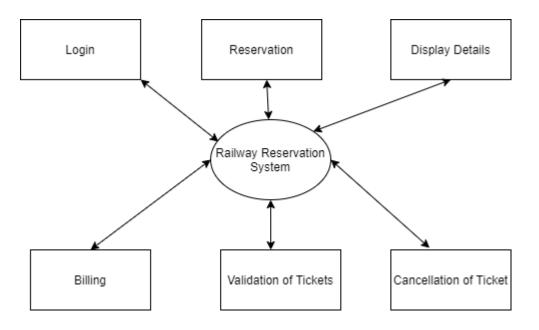
- System will allow the user to login in their respective account.
- Admin can edit the details of the trains.
- User will be able to book the tickets according to their needs.
- Tracks the information about train, bookings, passengers.

- Display the details of the booking.
- Print the booked tickets.
- User can cancel the booking.

Defining the system

- System Modules Along with the Functions:
 - o Login Module:
 - Registered users will logged in into the system with the valid credentials.
 - Reservation Module:
 - After checking the available seats the Users can reserve the seats.
 - o Train Details:
 - The details of specific train will be displayed.
 - o Billing Module:
 - Charge automatically w.r.t number of seats and train.
 - Cancellation Module:
 - If the User wants to cancel the ticket they can easily do it.

• Block Diagram:



Scope

The system provides basic functionality of railway system to the users like booking railway tickets, searching for a specific train, and cancellation of booked tickets. Railway system makes ticket reservation more convenient for the passengers as the passenger have to just specify a number of seats and on that list of trains will be available and they can book accordingly unlike traditional railway system where the passenger has to wait in a queue and have to fill form.

5 W's:

• Why:

As the aim is to reduce the physical work, and to save the time and efforts of users to personally visit the stations for booking there is need of such systems.

• Who:

Medium sized organizations can use it for their profit.

• What:

Convenient to use the system for the users to do all the activities related to online train ticket booking system such as reservation, cancellation and all other functions.

• When:

As the India has the largest railway network in the whole of the world and to handle it manually is quite tough job thus it is required now to design such systems which will help to do this job efficiently.

• Where:

This problem is expected all over the India.

Detail Requirements:

o Low level Requirements

ID	Description	Status
LL01	The user will be able to login successfully with the valid	Done
	credential.	
LL02	If user entered the incorrect login credentials then 'SORRY !!!!	Done
	LOGIN IS FAILED' message should be displayed.	
LL03	If the wrong choice number is entered then message of 'Invalid	Done
	Choice' should be displayed.	

LL04	After providing the required details for the booking the ticket and	Done
	yes is provided for confirming the booking, the booking should be	
	successful.	
LL05	If all the required details for the booking the ticket are not provided	Done
	then reservation should be unsuccessful.	
LL06	If the proper ticket holder name is provided then the ticket should	Done
	be cancelled successfully.	
LL07	If the proper ticket holder name is not provided then the message	Done
	'RECORD NOT FOUND' should be displayed.	
LL08	For validating the tickets if the proper ticket holder name is	Done
	provided then the message 'Ticket holder Exist Validate your	
	Tickets' should be displayed.	
LL09	For validating the tickets if the incorrect ticket holder name is	Done
	provided then the message 'RECORD NOT FOUND' should be	
	displayed.	

O High level requirements:

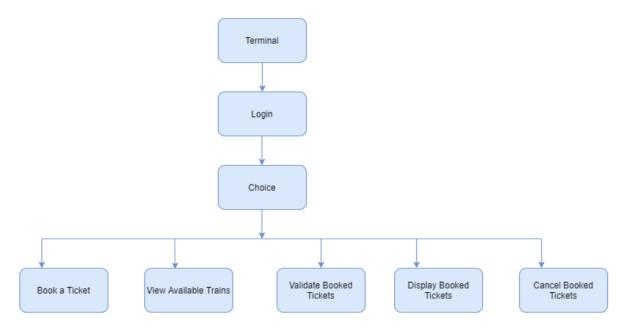
ID	Description	Status
HL01	User be able to login the system.	Done
HL02	User be able to book the ticket.	Done
HL03	User be able to view the available trains.	Done
HL04	User be able to cancel the ticket.	Done
HL05	Data should be saved in case of failure.	Future
HL06	Proper GUI can be implemented for further.	Future

UML Diagrams

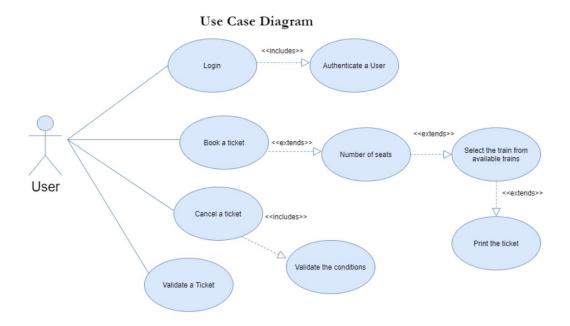
HLD

o Architectural Design:

Architectural Design



Use case diagram



O Collaboration Diagram

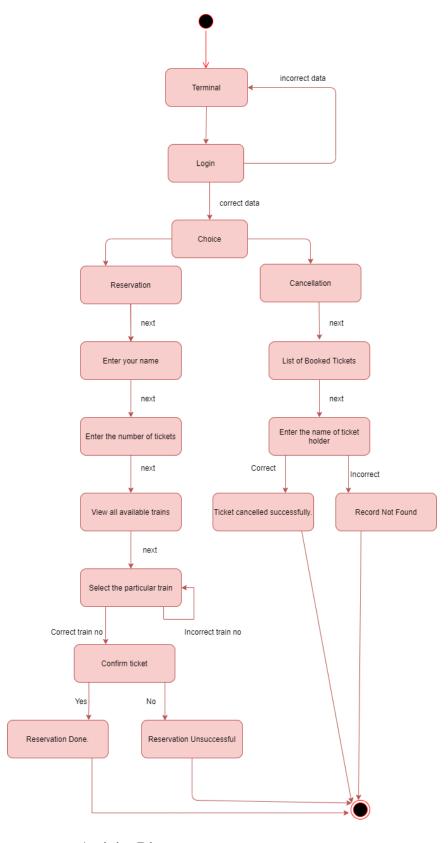
Collaboration Diagram 1.login() 4. request for book a ticket 2.authenticate() 5. submit required details 12. ticket cancel(). request to cancel the ticket submit the name of ticket holder Reservation User System 3.return successful login 8. return the booked ticket details 10. ask for the name of ticket holder 13. Ticket cancelled sucessfully. 7. booking details 6. ticket booked

Ticket is booked

LLD

o Statechart diagram:

State Chart Diagram



o Activity Diagram: