CU-438-2018
BSSE (A)

SRS Document:
Railway Reservation System

INTRODUCTION:

In SRS document of railway reservation system we will describe the overall behavior of the system such as software system, functional, non-functional requirement of the software system.

Existing & Proposed system:

The existing old offline system is time taking and outdated and also have some potential problems such as we can't trace the location of train we also couldn't buy tickets at home and can't check other schedule's. But don't need to worry because we proposed a system in which the passenger can check schedule such as arrival time view price of seats category check etc which is time saving and easier of passengers.

Purpose:

- The basic purpose of this system is reservation of railway tickets to the passenger.
- To reduce the load on employees of railway by computerizing the record.
- The database should in computer or electronic device rather than in register or in manual form.
- Quick feedback.

Category:

It is a kind of web application any kind of desktop android or IOS device can access this application.

Scope:

This online reservation system helps us to perform specific function such as:

Arrival and departure time.

View price of seats.

Seat availability.

Check category.

Route check.

Feed back.

OVERALL DESCRIPTION:

Product perspective:

Before using the system which we have proposed the old manual system had a lot of potential problems such as;

- The existing system was driven manually and a lot of paper work was involved therefore the probability of error was high.
- The data was stored in paper only so it was not much secure such as it may loss or stolen or destroyed due to any natural disaster.
- Existing system is very time taking and slow.
- One of the drawbacks of manual system is, it is difficult to add, delete and edit the data.
- More load on the employees of the railway's .

Benefits:

- Computerized system will reduce a lot of paper work and also reduce load on the employees of railway.
- Computer will do all calculation's which will reduce chance of error.
- This system will keep the data secure only the authorized user will access.

Product Function:

Search:

The search function allows user to search for the train and check it's departure and arrival time.

Selection:

This function allows the user to select the specified train with departure and arrival city, fare per head, train duration and selection of class such as economy class, business class etc.

Passenger Information:

The system will ask about the information of the passenger before reservation of seat and also to avoid fraud cases.

Payment:

It requires the details of the credit card/ debit card of the person to make payment and reserve seat the details will be such as;

- Card Number.
- Card type.
- Expiry date.
- Owner of card.

Cancellation:

This system also allows the cancellation of the reserve tickets and also refunding of money.

REQUIREMENT SPECIFICATION:

External Interface Requirements:

User Interface:

The user which is accessing this website at least have internet explorer 7 installed in his operating system (O.S) to login.

Hardware Interface:

In SRS we show characteristics of each interface between software product and hardware components. It specifies the hardware requirements like memory restrictions, cache size , processor, RAM size etc .

Minimum Hardware requirements :

Processor Dual core.

Hard disk 120GB.

RAM 2GB.

Cache 1024kb.

Preferred Hardware requirements :

Processor Core i 3.

Hard disk 210GB.

RAM 3GB.

Cache 2048kb.

Software Interface:

Any kind of windows operating system with DOS support and visual studio for development . Windows 7 with working LAN connection.

Functional Requirements:

Feature1: Description of train:

Customer can view the timing of the train and number of seats available.

Feature2: Can Reserve Ticket:

Customer can reserve tickets if the seats are available.

Feature3: Payment:

After reserving tickets the person must have to pay through proper channel.

Feature4: Cancelation:

If in case customer wants to cancel ticket then 80% of the payment will be refunded.

Feature5:(Performance requirement)

Satisfy user:

The system must be as such that it meets users expectation and must satisfy them.

Response of Operation:

The response of all the operation must be fine and good. This has been made possible by careful and precise programming.

Portable:

The system should not be platform dependent .It should not be architecture specific mean that it can be transformed to other platforms if needed.

User friendly:

The system should be user friendly and it must be easier for the user to interact with the system.

(Environmental constrains)

There are some factors in the client's environment that restrict the development company such as:

Hardware Limitations:

The software have to operate on some existing hardware , therefore some constrains are imposed on the design. Hardware limitations can be:

Type of machines which is used.

Operating system available to the system.

Limits on primary and secondary storage.

Non-Functional Requirements:

Security:

The system must automatically log out off all customers after a period of inactivity. They should not leave any cookie on the customers containing the user password. The system's back end servers shall only be accessible to the authenticated management.

Reliability:

By the word reliable we mean that the system should not crash early with more number of user such as in Google and face book in which there are millions of user's but it doesn't crash it means that the system is reliable, so we have to make our system reliable that if there are a lot of person who wants' to buy tickets so it should not crash. The main support of reliability is the backup of database which is continuously updated and maintained to support the most recent change.

Availability:

By the term availability we mean that the system should be available to the user whenever he/she wants can access through the web browser. A customer friendly system which should work 24 hours, in case of hardware failure or database corruption the system should show a replacement document also in case of database corruption a backup of database should start working and service should be restarted.

Maintainability:

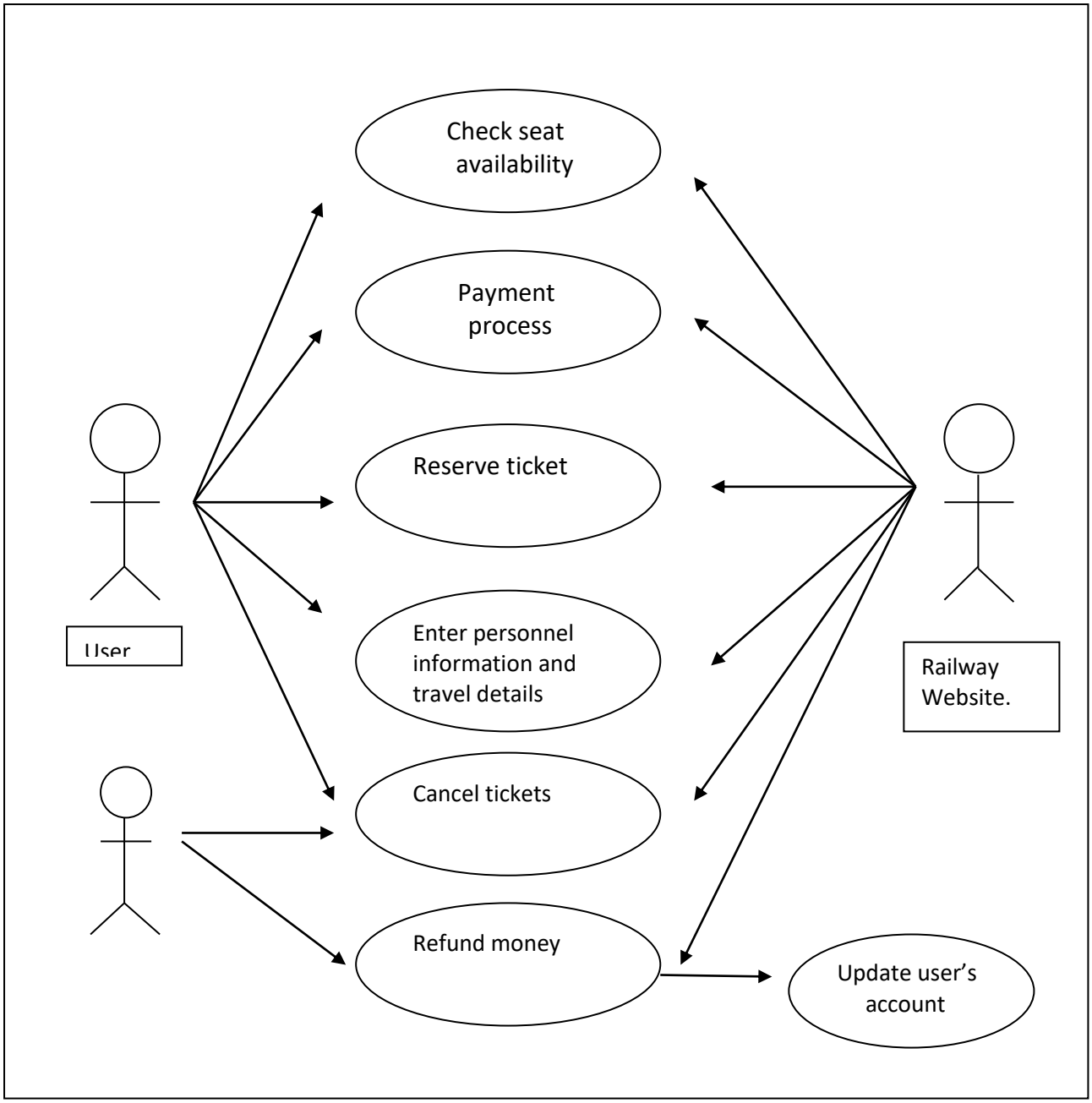
By maintainability we mean that the system should be maintainable means that in case of error it should be maintainable and also to add a new functionality to the system. A commercial database should be used for maintaining the database ,in case of failure a re-initialization of the project should be done .

USE CASE DIAGRAM:

A use case diagram is UML (unified modelling language) it is kind of behavioural diagram which is defined and created by use case analyst. It is a kind of graphical representation in which functionalities are represented in form of diagram.

The purpose of use case diagram is to show what function system is going to provide to which user.

An actor is the person or an organization in which starts interaction with the system.


Check seat availability
Payment process
Reserve ticket
Enter personnel information and travel details
Cancel tickets
Refund money
Update user's account
User
Railway Website.