Local Train Pass Project

A Software Requirements Specification (SRS) is a document that describes the nature of a project, software or application. In simple words, SRS document is a manual of a project provided it is prepared before you kick-start a project/application. This document is also known by the names SRS report, software document. A software document is primarily prepared for a project, software or any kind of application.

There are a set of guidelines to be followed while preparing the software requirement specification document. This includes the purpose, scope, functional and nonfunctional requirements, software and hardware requirements of the project. In addition to this, it also contains the information about environmental conditions required, safety and security requirements, software quality attributes of the project etc.

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1.Intoduction:

A software project that allows user to register and open an account in the railway system. The system allocates a pass and along with account balance and other details. The system consists of following features: User may register for new account with a unique id User may then login using his id and password The user starts with a minimum balance.

2. Overall Description:

A distributed Local Train pass System stores the following information.

2.1 Travelling Details:

It includes the originating travelling terminal and destination terminal, along with the stops in between, the number of seats booked/available seats between two destinations etc.

2.2 Customer Description:

It includes customer code, name, address and phone number. This information may be used for keeping the records of the customer for any emergency or for any other kind of information.

2.3 Reservation Description:

It includes customer details, code number, train number, date of booking, date of travel.

2.4 User class and Characteristic:

Users of the system should be able to retrieve train information between two given cities with the given date/time of travel from the database. A route from city A to city B is a sequence of connecting flights from A to B such that: a) there are at most two connecting stops, excluding the starting city and destination city of the trip, b) the connecting time is between one to two hours. The system will support two types of user privileges, Customer, and Employee. Customers will have access to customer functions, and the employees will have access to both customer and flight management functions. The customer should be able to do the following functions:

2.4.1 CustomerFuntion:

1.get all information related to pass

2.get all customer who have seat reserved

3.get all train from a given station

4.view train schedule

5.get all train whose arrive and departure

6.calculate total sale foe a given travel

2.4.2 Administrative:

1.Add /Delete a train

2.Add a new train

3.Update fare for train

4. update departure and arrival time for train

2.5 Operating Envirnment:

Operating environment for the Local Train Pass management system is as listed below.  

1.distributed database

2.client/server system

3.Operating system: Windows.

4.database: sql+ database

5.platform: vb.net/Java/PHP

* 1. Design and Implementation:

1.The global schema, fragmentation schema, and allocation schema.

2. SQL commands for above queries/applications

3. How the response for application 1 and 2 will be generated. Assuming these are global queries. Explain how various fragments will be combined to do so.

4. . Implement the database at least using a centralized database management system.

3.System Features:

3.1 Description and priority:

The Local train pass system maintains information on trains, classes of seats, personal preferences, prices, and bookings. Of course, this project has a high priority because it is very difficult to travel across countries without prior reservations.

3.2 Client /Server System:

The term client/server refers primarily to an architecture or logical division of responsibilities, the client is the application (also known as the front-end), and the server is the DBMS (also known as the back-end).

A client/server system is a distributed system in which,

* Some sites are client sites and others are server sites.
* All the data resides at the server sites.
* All applications execute at the client sites.

4. External Interface Requirement:

4.1.user Interface:

* 1. Front-end software: Vb.net version

2. Back-end software: SQL+

4.2 Hardware Interface:

1.Windows.

2..A browser which supports CGI, HTML & Javascript.

4.3 Software Interface:

Following are the software used for the local train pass management online application.

|  |  |
| --- | --- |
| **Software used** | **Description** |
| Operating system | We have chosen Windows operating system for its best support and user-friendliness. |
| Database | To save the flight records, passengers records we have chosen SQL+ database. |
| VB.Net | To implement the project we have chosen Vb.Net language for its more interactive support. |

4.4 Communication Interface:

his project supports all types of web browsers. We are using simple electronic forms for the reservation forms, ticket booking etc.

5.NonFuntional Requirement:

5.1 Performance Requirement:

The steps involved to perform the implementation of airline database are as listed below.

1. **E-R DIAGRAM:**

* The E-R Diagram constitutes a technique for representing the logical structure of a database in a pictorial manner. This analysis is then used to organize data as a relation, normalizing relation and finally obtaining a relation database.

**1. ENTITIES:**

Which specify distinct real-world items in an application.

**2. PROPERTIES/ATTRIBUTES:**

Which specify properties of an entity and relationships.

**3.RELATIONSHIPS:**

Which connect entities and represent meaningful dependencies between them.

**5.2 Safety Requirement:**

If there is extensive damage to a wide portion of the database due to catastrophic failure, such as a disk crash, the recovery method restores a past copy of the database that was backed up to archival storage (typically tape) and reconstructs a more current state by reapplying or redoing the operations of committed transactions from the backed up log, up to the time of failure.

5.3 Security Requirement:

security systems need database storage just like many other applications. However, the special requirements of the security market mean that vendors must choose their database partner carefully.

5.4 Software Quality Attributes:

**1.AVAILABILITY:**

The train should be available on the specified date and specified time as many customers are doing advance reservations.

**2.CORRECTNESS:**

The flight should reach start from correct start terminal and should reach the crrect destination.

**3.MAINTAINABILITY:**

 The administrators and flight in chargers should maintain correct schedules of flights.

**4.USABILITY:**

The flight schedules should satisfy a maximum number of customers needs.