**NATIONAL RAILWAY RESERVATION**

**DATABASE SYSTEM**

*BY:*

*BASANT KUMAR MEENA(14CS01007)*

*SHAILESH KUMAR (14CS01038)*

**INTRODUCTION**

This system is basically concerned with the reservation and cancellation of railway tickets to the passenger. The need of this system arouses because as it is the known fact that the India has the largest railway network in the whole world and it is not possible to handle such a large system manually. By computerizing it, it became possible to overcome the limitations and make the system operations more efficient. The complexity in handling and records of such a vast system got reduced and became easier by computerizing the system.

Being more specific, this online railway reservation system can perform the basic functions like reservation and cancellation. The users are required to register on the server for getting access to the database and query result retrieval.

**Software Needed**

* MYSQL DATABASE
* HTML
* PHP
* CSS
* JAVASCRIPT
* HOSTING SERVER(Apache)
* Notepad++
* Sublime Text

**RELATIONAL DIAGRAM**

|  |  |
| --- | --- |
| **Attributes** | **Data Type** |
| ***User\_name*** | Varchar (30) |
| Password | Varchar (30) |
| First\_name | Varchar (30) |
| Last\_name | Varchar (30) |
| Gender | Varchar (10) |
| Email | Varchar (30) |
| Mobile | Number (20) |
| DOB | Date |

**User\_Profile Tickets**

|  |  |
| --- | --- |
| **Attributes** | **Data Type** |
| ***PNR\_no*** | Number (10) |
| ***User\_name*** | Varchar (30) |
| T\_From | Varchar (30) |
| T\_To | Varchar (30) |
| ***Train\_no*** | Number (10) |
| DOJ | Date |
| T\_Class | Varchar (10) |
| Total\_fair | Number (10) |

**Trains Stations**

|  |  |
| --- | --- |
| **Attributes** | **Data Type** |
| ***Train\_no*** | Number (10) |
| Train\_type | Varchar (30) |
| Train\_Name | Varchar (30) |

|  |  |
| --- | --- |
| **Attributes** | **Data Type** |
| ***STN\_code*** | Varchar (10) |
| STN\_Name | Varchar (30) |

|  |  |
| --- | --- |
| **Attributes** | **Data Type** |
| ***PNR\_no*** | Number (10) |
| Name | Varchar (30) |
| Age | Number (10) |
| Gender | Varchar (10) |
| **Seat\_no** | Number (10) |
| Coach | Varchar (10) |
| T\_Status | Varchar (10) |
| Train\_no | Number (10) |
| S\_date | Date |

**Schedule Passenger**

|  |  |
| --- | --- |
| **Attributes** | **Data Type** |
| ***Train\_no*** | Number (10) |
| ***STN\_code*** | Varchar (10) |
| Arrival\_time | Time |
| Departure\_time | Time |
| Distance\_travel\_so\_far | Number (30) |
| Fair | Number (10) |
| Current\_day | Number (10) |

**Status**

|  |  |
| --- | --- |
| ***Train\_no*** | Number (10) |
| Available\_day | Number (10) |

**Trains\_availability**

|  |  |
| --- | --- |
| **Attributes** | **Data Type** |
| ***Train\_no*** | Number (10) |
| **starting\_date** | date |
| Total\_seats\_ac1 | Number (10) |
| Booked\_seats\_ac1 | Number (10) |
| Total\_seats\_ac2 | Number (10) |
| Booked\_seats\_ac2 | Number (10) |
| Total\_seats\_ac3 | Number (10) |
| Books\_seats\_ac3 | Number (10) |
| Total\_seats\_sl | Number (10) |
| Booked\_seats\_sl | Number (10) |

**Cancel Tickets**

|  |  |
| --- | --- |
| **Arribute Name** | **Data Type** |
| *Train No* | Number (10) |
| Coach | Varchar (10) |
| Seat no | Number (10) |
| Doj | Date |

**APPLICATIONS**

* Reservation of Tickets (Up to max 6 persons)
* Cancellation of Tickets
* PNR Status
* Check trains between stations
* Create account to access database
* Check fair of trains and distance
* Check trains Schedule

**DATABASE DESCRIPTION**

* TRIGGERS

Auto Increment Booked Seats

When a person books a ticket, status of booked seats for that train gets incremented automatically.

Cancel Ticket

Whenever a person cancels his tickets, that seat gets transfer to person in waiting list.

* PROCEDURE

Search trains

It takes source, destination and date of journey and gives back all possible trains between them.

Status new entry

Its creates a new instance of trains in status table for a particular date.

Current status

Its gives current status (#available seats) of train from status table for a particular date.

**LIMITATIONS**

* There no Procedure for transaction like online payment has not been implemented, similarly after cancellation of ticket you are not going to get refund.
* Implementation of real time tracking of trains is not done. For example, if a train gets delayed we are not providing any details.
* This database system does not contain all data of trains and stations of our country.