

Relational Schema Mapping of Railway Reservation System

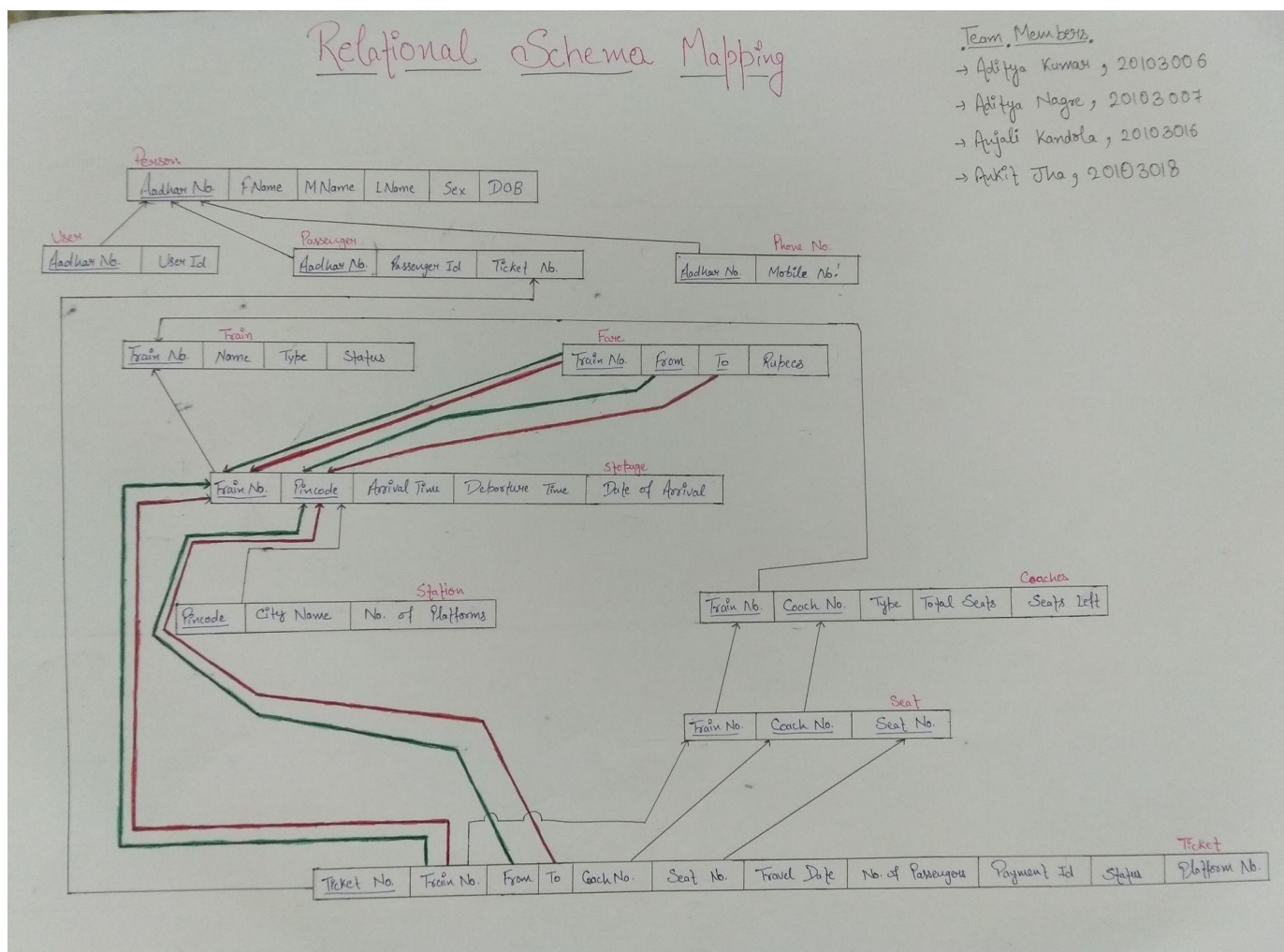
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Explanation of Entity Relationship Model

Person

This entity stores the aadhar number ,name(first + middle + last),gender and date of birth of a person.

Aadhar No: It act as primary key in this entity because every person has an aadhar number (not null) and is unique for each person

Fname: Stores first name of the person

Mname: Stores middle name of the person

Lname: Stores last name of the person

Sex: Stores gender of each person

Dob: Stores date of birth

Passenger

This entity stores the details of person who has booked the ticket with us and will be traveling at a scheduled date and time

Aadhar No.: It takes reference from a person entity and also acts as the primary key. This entity only stores the information of those who will be traveling.

Passenger Id: A uniquely generated id based on passenger aadhar number and train details

TicketNo. : Stores the ticket number corresponding to each customer

Person_MoblieNo ,

This maps aadhar number with mobile number of each person registered in our data base

Aadhar No.: It act as primary key in this entity and is taking reference from aadhar number in person

MobileNo. : Stores the mobile number corresponding to each mobile number

User

This entity store the aadhar number and user id which is assigned to each person when one get registered on our website

Aadhar no:It act as primary key in this entity and is taking reference from aadhar number in person

User Id: It is uniquely generated id corresponding to each aadhar_no

Train

This entity stores the details of trains which include name of train mapped with train number

Train_No. : It is a unique number given to operating trains hence act as primary key here. It help to get train info by this attribute

Name: It stores the name of each train

Type: Gives what class does a particular train have (i.e sleeper,chair,2nd a.c ,3rd a.c etc)

Status: Signifies what is running status of train whether it is late ,on time etc

Station

This entity stores the details of each station where it is located and number of platform on that particular station

Pincode: It holds the 6 digit pincode which signifies in which city,state the station is located

City-name: With corresponding to each pincode city is stored

No. of Platform: It give information about number of platform on a platform

Stoppage

This entity stores the details of the stations at which the train stops with its date of arrival, arrival time, departure time, train number, platform number

Pincode: It is taking reference from fare table. It holds the 6 digit pincode which signifies in which city,state the station is located

Train no: Train no. and pincode is a composite key here and both of which determining the other attributes of the table. Taking reference from train no. in train.

Arrival time: It stores the arrival time of the train on station

Department time: It stores the time at which the train leaves that station

Hault: It stores the time for which the train stops at that station

Platform no.: It is the platform number of the platform at which the train will stop

Date of arrival: Stores the date at which the train arrives

Fare

This entity stores the train number, the starting point and destination along with the amount of fare needed for the journey

Train no.: Stores the train number. It is taking reference from stoppage table.

From: It is as well taking reference from pincode in stopage. Stores the arrival station of the passenger.

To:It is taking reference from pincode in stopage. Stores the destination of the passenger. Train no., from , to acts as a composite key here and togetherly determining other attributes.

Rupees: Its the total amount a passenger needs to pay for the journey

Coaches

This entity stores the details of the coaches in a train with its type, seats available and total seats in that coach

Train no.: Here it is taking reference from train no. in train table.

Coach no.: Coach no. and train no. acts as a composite key here. It stores the coach no. of the coach.

Type: Represents the type of coach i.e. sleeper, 2AC, 3AC, etc

Total seat: Stores the total number of seats in the coach

Seats left: Stores the number of seats left to be filled or the available seats

Seat

This entity stores the train number, coach number and the seat number of passenger

Train no.: Here this attribute is taking reference from train number in coaches and is acting as a foreign key for ticket table as well.

Coach no.: Coach no. is also taking reference from coach no. in coaches and again acting as a foreign key for ticket table.

Seat no.: Seat no. is as well a part of the composite key (train no., coach no. seat no.) and a foreign key for ticket table.

Ticket

This entity stores ticket number, train number and the details about the passengers journey along with the date, payment id, etc

Ticket No.: It is the ticket number which is unique for each passenger and hence acts as a primary key here. This attribute gives almost every information

about the journey of the passenger. It is taking reference from ticket number in passenger table

Train No.: It is referenced from train number in seat. Stores the train no. in which the passenger is traveling.

From: Acts as a foreign key in seat referenced from pincode in stopage. Stores the starting station from which the passenger enters the train.

To: It stores the destination. It is taking reference from pincode in stopage.

Seat No.: It is taking reference from seat number in seat.

Coach No.: This attribute is taking reference from coach number in seat.

Travel date: It stores the travel date of the passenger

No. of passenger: Stores the number of passengers traveling on this ticket

Payment id: Stores the Id generated after the payment of fare

Status: Stores the status of the ticket whether the fare is paid