VISVESVARAYA TECHNOLOGICAL UNIVERSITY

"Jnana Sangama", Belgaum-590018

18CSL58 - DBMS Mini Project Synopsis On

IRCTC RAILWAY RESERVATION

BACHELOR OF ENGINEERING

IN

COMPUTER SCIENCE AND ENGINEERING

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ABSTRACT

Indian Railway Catering and Tourism Corporation popularly known as IRCTC is an Indian public sector undertaking that provides ticketing, catering, and tourism services for the Indian Railways.
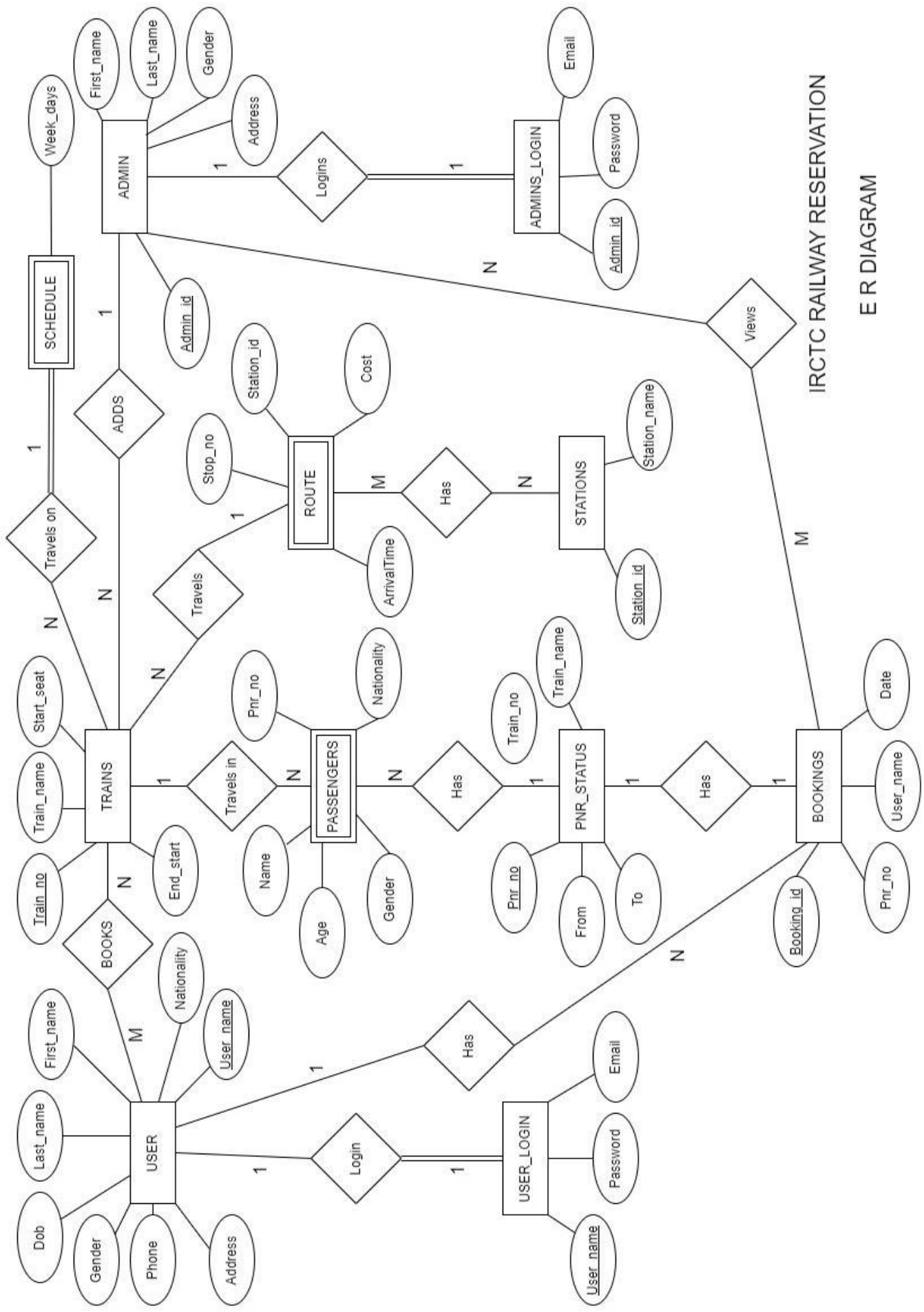
Our project **"IRCTC railway reservation"** is a desktop based stand alone application developed using java swings framework of java.This project is an attempt to demostrate the working of railway reservation process both from the admin and user view.

This project provides various functionalities to the user where he can create his own account or login through an existing account and search the desired trains according to plan of his/her travel.The user can also book the seats to confirm his travel in the indian railways. Other functionalities includes viewing his profile,view his previous bookings. passengers travelling in the train are assigned a pnr number which is unique and find all the details of their journey by using the search pnr function.The user also receives a confirmation mail to his registered mail id after booking.All the details are stored in the database which is accessed dynamically everytime to provide accurate information.

It also has admin where the admin is authenticated using both password and OTP sent to his registered mail providing two step verification.The admin can make major changes which includes adding a new train to the database.

Tools used:

1. JAVA language

2. JAVA SWINGS and AWT(Abstract Window Toolkit)

3. MySQL database (MySQL Workbench)

4. Visual Studio Code for development

5. Git and GitHub for version control management

6. Figma

IRCTC RAILWAY RESERVATION

E R DIAGRAM

ADMIN — Week_days, First_name, Last_name, Gender, Address, Admin_id

ADMINS_LOGIN — Email, Password, Admin id

Logins (1 — 1)

Views (N — M)

SCHEDULE

ADDS (1)

Travels on (1 — N)

ROUTE — Station_id, Cost, Stop_no, ArrivalTime

Has (M — N)

STATIONS — Station_name, Station id

Travels (N — 1)

TRAINS — Start_seat, Train_name, Train_no, End_start

Travels in (1 — N)

PASSENGERS — Pnr_no, Nationality, Name, Age, Gender

Has (N — 1)

PNR_STATUS — Train_name, Train_no, Pnr_no, From, To

Has (1 — 1)

BOOKINGS — Date, User_name, Pnr_no, Booking_id

Has (N — 1)

BOOKS (M — N)

USER — First_name, Last_name, Dob, Gender, Phone, Address, Nationality, User name

Login (1 — 1)

USER_LOGIN — Email, Password, User name

IRCTC RAILWAY RESERVATION

SCHEMA DIAGRAM

USER

User_name	First_name	Last_name	Dob	Gender	Nationality	Address	Phone

USER_LOGIN

User_name	Password	Email

ADMIN

Admin_id	First_name	Last_name	Gender	Address

ADMIN_LOGIN

Admin_id	Password	Email

TRAINS

Train_no	Train_name	Start_seat	End_seat	Admin_id

ROUTE

Train_no	Stop_no	Station_id	ArrivalTime	Cost

STATIONS

Station_id	Station_name

SCHEDULE

Train_no	Mon	Tue	Wed	Thur	Fri	Sat	Sun

BOOKINGS

Booking_id	Pnr_no	User_name	Date

PNR_STATUS

Pnr_no	Train_no	Train_name	From	To

PASSENGERS

Pnr_no	Name	Age	Gender	Seat_no