Database Systems
Project Report
Project Title: Bus e-ticketing System

ID	**Name**	**Contribution**
	Anindya Majumder	Frontend, Backend

Table of Contents

Introduction

In the fast-paced world of today, efficiency and convenience in transportation are paramount. The Bus E-Ticketing System is a database management system designed to streamline the process of booking bus tickets. This innovative project offers a user-friendly platform that allows passengers to secure their seats with just a few clicks, eliminating the need for standing in long queues or dealing with the hassle of physical ticket purchases.

For users, the system provides a seamless experience where they can browse schedules, select the number of passengers, and make payments all from the comfort of their homes or on the go. The intuitive interface ensures that booking tickets is effortless, time-saving, and accessible to everyone, regardless of their tech savvy.

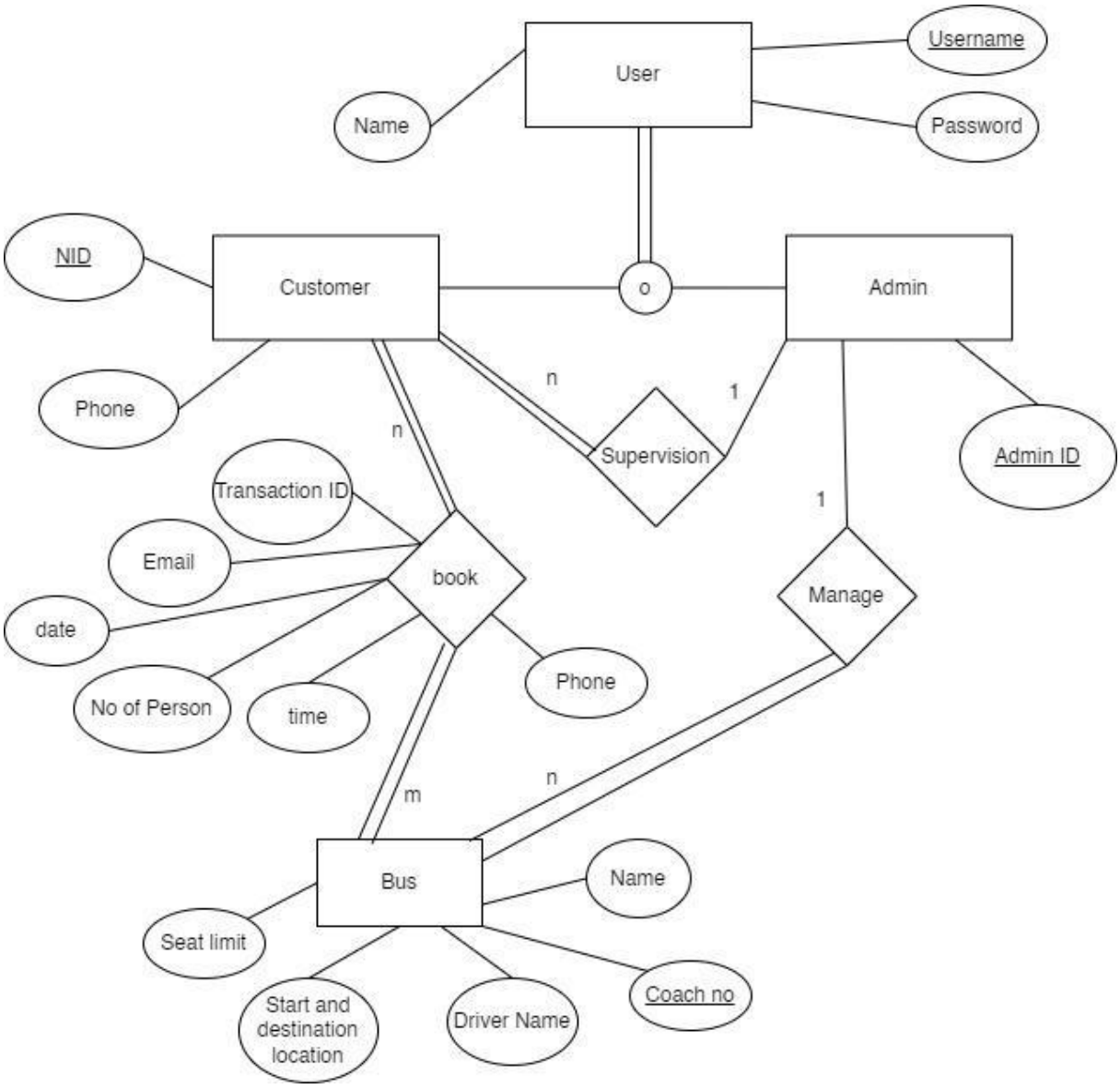
Administrators of the bus e-ticketing system are empowered with the ability to manage bus fleets efficiently. They can add new buses, modify schedules, and update seat availability. This flexibility ensures that bus operators can respond quickly to changes in demand and maintain a high level of service for their passengers.

Overall, the Bus E-Ticketing System is more than just a database management project; it's a step towards modernising the public transportation infrastructure, making it more reliable, efficient, and customer-oriented.

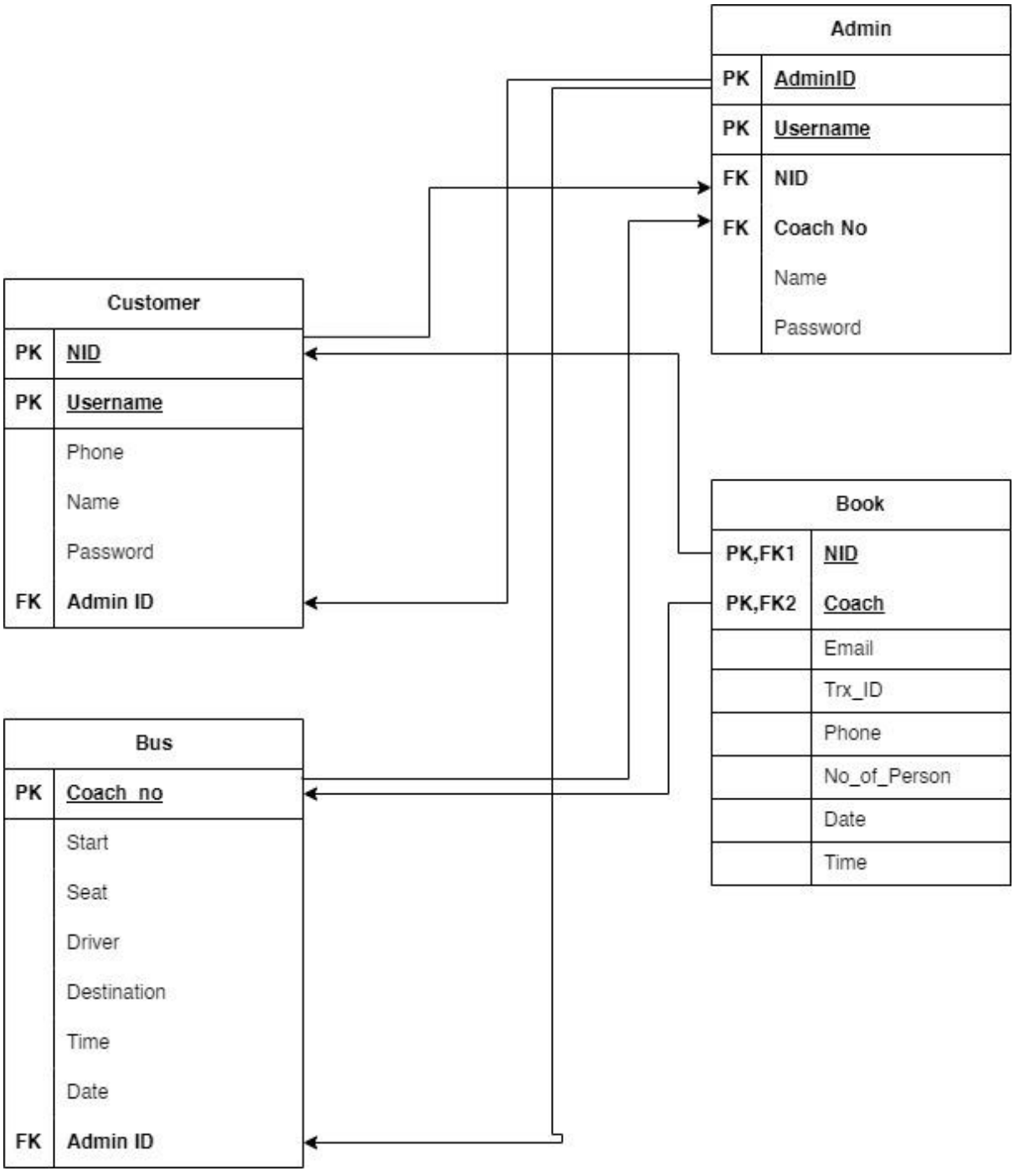
Project Features

- Sign Up and Login Pages, for users to enter the main portal.
- The landing page consists of all the information about the bus and users can book tickets from the landing page.
- Users can easily delete or sign out from the webpage.
- To book a ticket User can choose his desired time, destination and number of seats.
- After filling up all the information and being done with the payment, a php script will generate the bus ticketing, consisting necessary information.

ER/EER Diagram



Schema Diagram



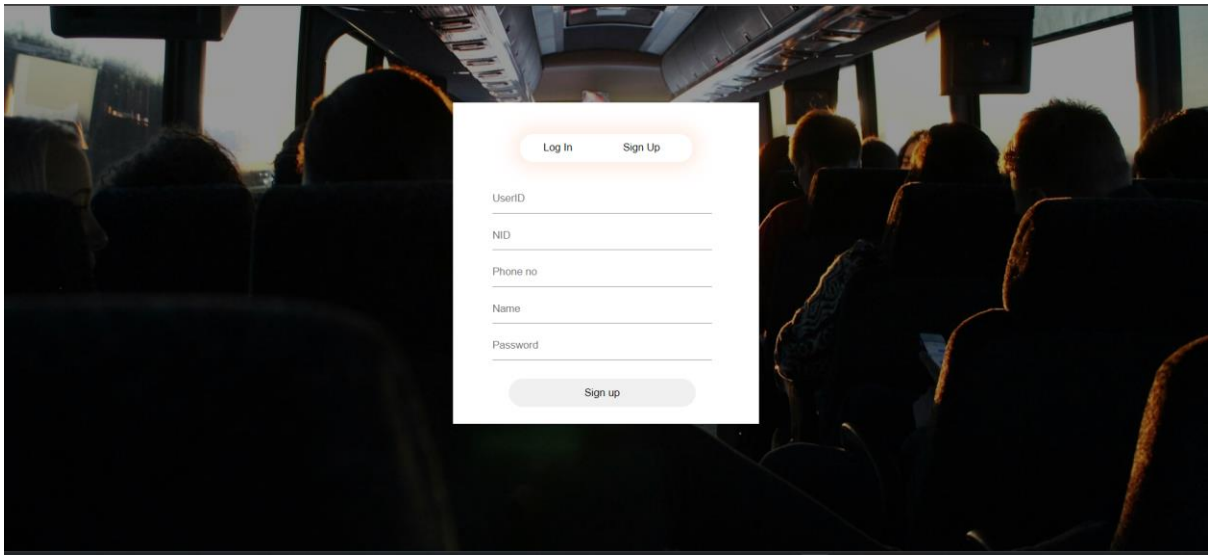
Frontend Development

Briefly discuss about Frontend Development and add Screenshots by mentioning Individual Contributions

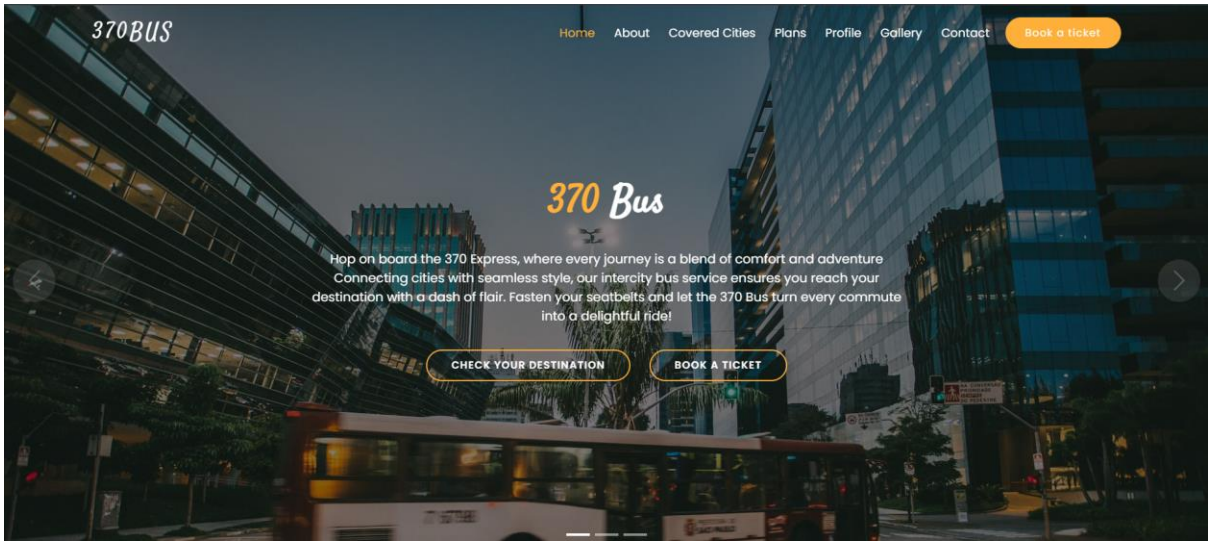
Contribution of ID : 23241062, Name : Anindya Majumder

The front end of the project consists of basically four web pages, one for the login and signup, another one for the landing page as well as the ticket booking page and lastly the payment page. After done with the payment, a ticket will be generated and built by HTML, CSS and PHP.

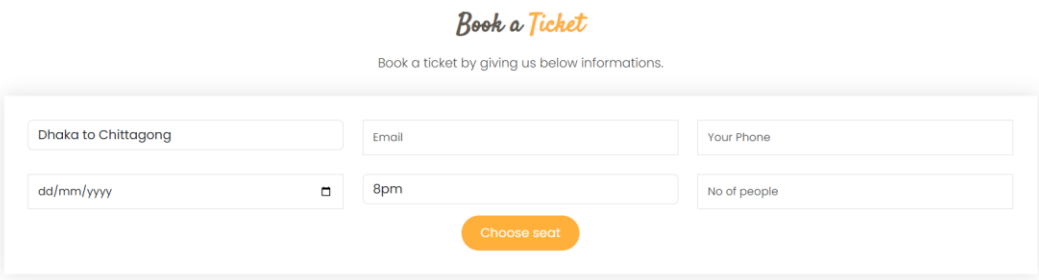
Here is the very first page of the portal, the sign-up, and login page:



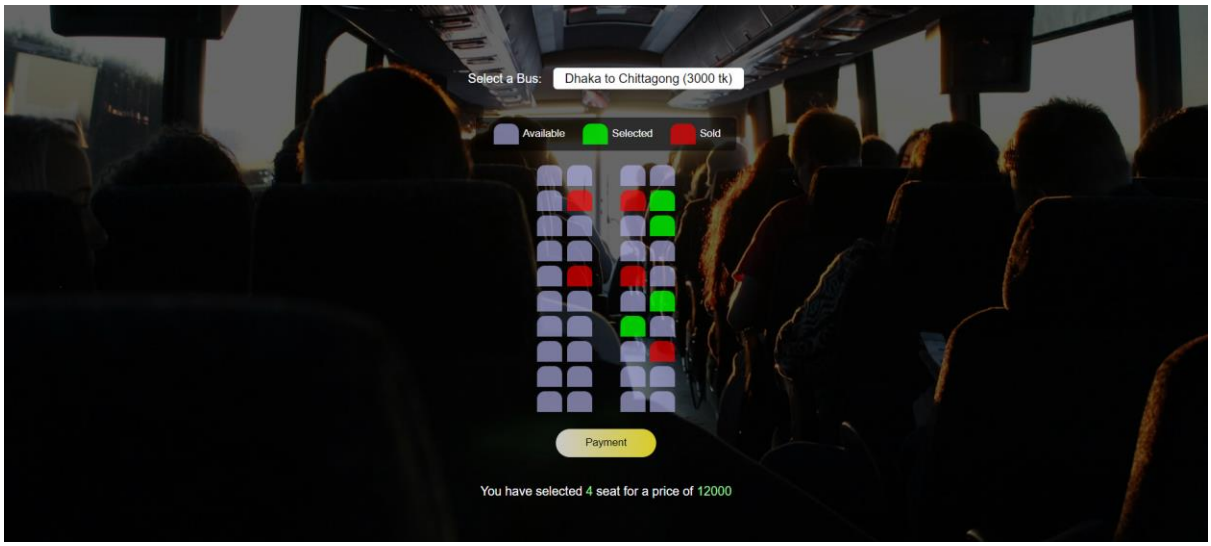
Successful login permits to enter the landing page. Very first view is attached here:



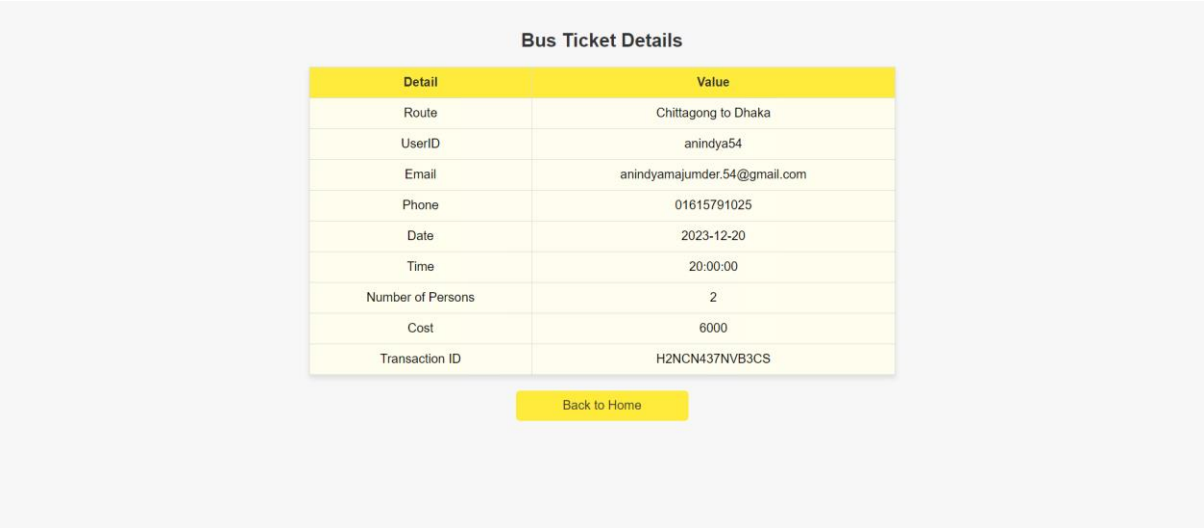
Here is the ticket booking section:



A page for the payment and final confirmation of ticket booking:



Here is the ticket page:



This indicates to the user that, he/she is done with the ticket booking.

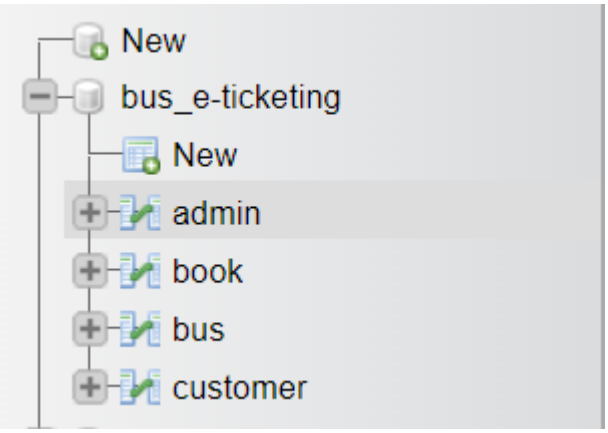
Backend Development

Briefly discuss about Backend Development and add Screenshots by mentioning Individual Contributions

Contribution of ID : , Name : Anindya Majumder

The backend development is based on the MySQL database system. I developed all the necessary tables according to the normalised schema diagram. Moreover, to connect the front end with the backend, created several PHP scripts, that can Select, Update, Populate, Remove and Read from the database according to the requirements.

These four tables are the backbone of the whole project.



Bus table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	**Coach_No**	int(199)			No	*None*		
2	**Start**	varchar(100)	utf8mb4_general_ci		No	*None*		
3	**Destination**	varchar(100)	utf8mb4_general_ci		No	*None*		
4	**Driver**	varchar(100)	utf8mb4_general_ci		No	*None*		
5	**Seat**	int(100)			No	*None*		
6	**Time**	time(6)			No	*None*		
7	**Admin_ID**	varchar(100)	utf8mb4_general_ci		No	*None*		
8	**Date**	date			No	*None*		

Customer Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	**NID**	int(20)			No	*None*		
2	**Phone**	int(11)			No	*None*		
3	**Username**	varchar(50)	utf8mb4_general_ci		No	*None*		
4	**Name**	varchar(100)	utf8mb4_general_ci		No	*None*		
5	**Password**	varchar(50)	utf8mb4_general_ci		No	*None*		
6	**AdminID**	varchar(5)	utf8mb4_general_ci		No	*None*		

Admin Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	**AdminID**	varchar(100)	utf8mb4_general_ci		No	1		
2	**Username**	varchar(100)	utf8mb4_general_ci		No	admin		
3	**NID**	int(100)			No	*None*		
4	**Coach_No**	int(199)			No	*None*		
5	**Name**	varchar(100)	utf8mb4_general_ci		No	Admin		
6	**Password**	varchar(100)	utf8mb4_general_ci		No	adminadmin		

Book Table:

#	Name	Type	Collation	Attributes	Null	Default	Comments	Extra
1	**NID**	int(20)			No	*None*		
2	**Coach_No**	varchar(100)	utf8mb4_general_ci		No	*None*		
3	**Email**	varchar(100)	utf8mb4_general_ci		No	*None*		
4	**Trx_ID**	varchar(15)	utf8mb4_general_ci		No	*None*		
5	**Phone**	int(20)			No	*None*		
6	**No_of_Person**	int(20)			No	*None*		
7	**Date**	date			No	*None*		
8	**Time**	time			No	*None*		

Source Code Repository

Upload source code to GitHub or Google Drive and share a publicly accessible link in this section of the report.

Bus-e-ticketing-System

Conclusion

In summary, the Bus E-Ticketing Database Management System revolutionizes bus travel. Simplifying ticket booking for users and enabling administrators to effortlessly manage buses, enhances overall efficiency. As we witness a paradigm shift towards digital solutions, the Bus E-Ticketing project stands as a testament to the transformative power of database management systems in enhancing user experiences and operational efficiency. With this system in place, the journey towards a more connected and technologically-driven transportation ecosystem becomes not just a possibility, but a tangible reality.

References

- https://www.youtube.com/watch?v=2l3A9WZSqXc&list=WL&index=48&t=310s
- https://www.youtube.com/watch?v=L5WWrGMsnpw&list=WL&index=47
- https://getbootstrap.com/docs/5.3/forms/form-control/
- https://www.w3schools.com/
- https://bootstrapmade.com/
- https://www.geeksforgeeks.org/
- https://www.youtube.com/watch?v=MJOnckN_0D0&t=9s