



NORTH SOUTH UNIVERSITY

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

PROJECT REPORT

BUS MANAGEMENT SYSTEM

DATABASE SYSTEM LAB

CSE311L

SECTION: 5

SUMMER 2021

GROUP: 9

STUDENT

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Introduction

Buses are one of the most popular public transits. We can hardly find a region where there is no bus service available. Keeping such a huge demand in mind, we have come forward with a bus management system which makes booking a bus service easier than ever before. It has been developed to override the problems prevailing in the conventional system. Using our management system our important users like you can book bus tickets and keep track of their schedule. We put our users at the center of the system. They make the decision of choosing their destination, and we connect them to the right services. Bus Transport Management System makes transport maintenance easy and requires less man power and less time as well as cost for maintaining it.

Purpose and Benefits of Bus Management System project:

- To make the environment user-friendly, so that anybody can access the service.
- Travellers will remain up-to-date about the timetable changes if certain event occurs, such as government shutdowns, lock downs etc.
- Travellers can access the info about the bus in detail, such as info about the driver, the condition of the vehicle, what are the stops, etc.
- Travellers can leave a review and a rating on their experience with certain vehicle.
- Travellers can report certain event that they didn't like to the authority

Bus Management System Features:

Our model will provide four basic types of functionality which are Create, Read, Update and Delete resources(CRUD). To make the bus management system usable, we make sure there were clear mechanisms for completing the CRUD operations. The create operation is performed when booking seats, read operation when booking history is checked, update and delete in edit and cancel booking. Other features of our project is described as below:

- **Book Tickets:** Users will be able to book tickets directly from the website.
- **Update:** The user can update/ change the ticket booking until 6 hours prior to departure. All the information gets automatically updated whenever any changes are made.
- **Cancel & Refund:** Users can cancel their bookings until 12 hours prior to departure. The amount paid for the booking will be refunded as well.
- **Tourism Packages:** There will be a number of tourism packages especially designed for tourists. We will provide several round trips with fixed prices and hotel bookings.
- **Notification:** Once a customer requests a service, he/ she will be constantly updated via text messages/ email notifications
- **Safety:** The safety of our customers is most important to us. Our system will always keep track of red zones, lockdowns and shutdowns especially during the ongoing pandemic. We are prepared to change our routes if necessary. For any delay or change of our services, our customers will be notified right away.
- **Live Maps:** Users can check our routes while booking a service.

Limitations of the Bus Management System:

One of the substantial challenges would be the cost maintenance of our system, since we will be working with big data. Also the privacy and security of the user provided data will be our central concern. In addition to that keeping track of roadblocks, lockdown, shutdowns etc. requires us to work with other service providers which can be challenging at times.

Solution description:

Front-end plan:

There are some templates in plan

1. Main page
2. Login-signup page
3. Search bus page
4. Book seats page
5. Payment page
6. Travel packages page
7. Booking history page
8. Edit-cancel-booking page

Back end development:

1. Account creation:
 - a. Sign up form, verification by email or mobile
 - b. Login
2. Searching facility
 - a. Search bus
3. Booking facility
 - a. Book seats
 - b. Book packages
3. Payment facility
 - a. Paying through card or bkaash
4. Editing facility
 - a. Edit and cancel booking

Tools and Technologies:

- SQL
- HTML
- CSS
- Django
- Python
- Figma

Project Schedule

		Week					
SL		1	2	3	4	5	
1	Proposal						1
2	Designing(Schema, ER, case)						1
3	Front-end development						2
4	Database Interaction						2
5	Project Presentation+ Report submission						3
	Total Duration						9

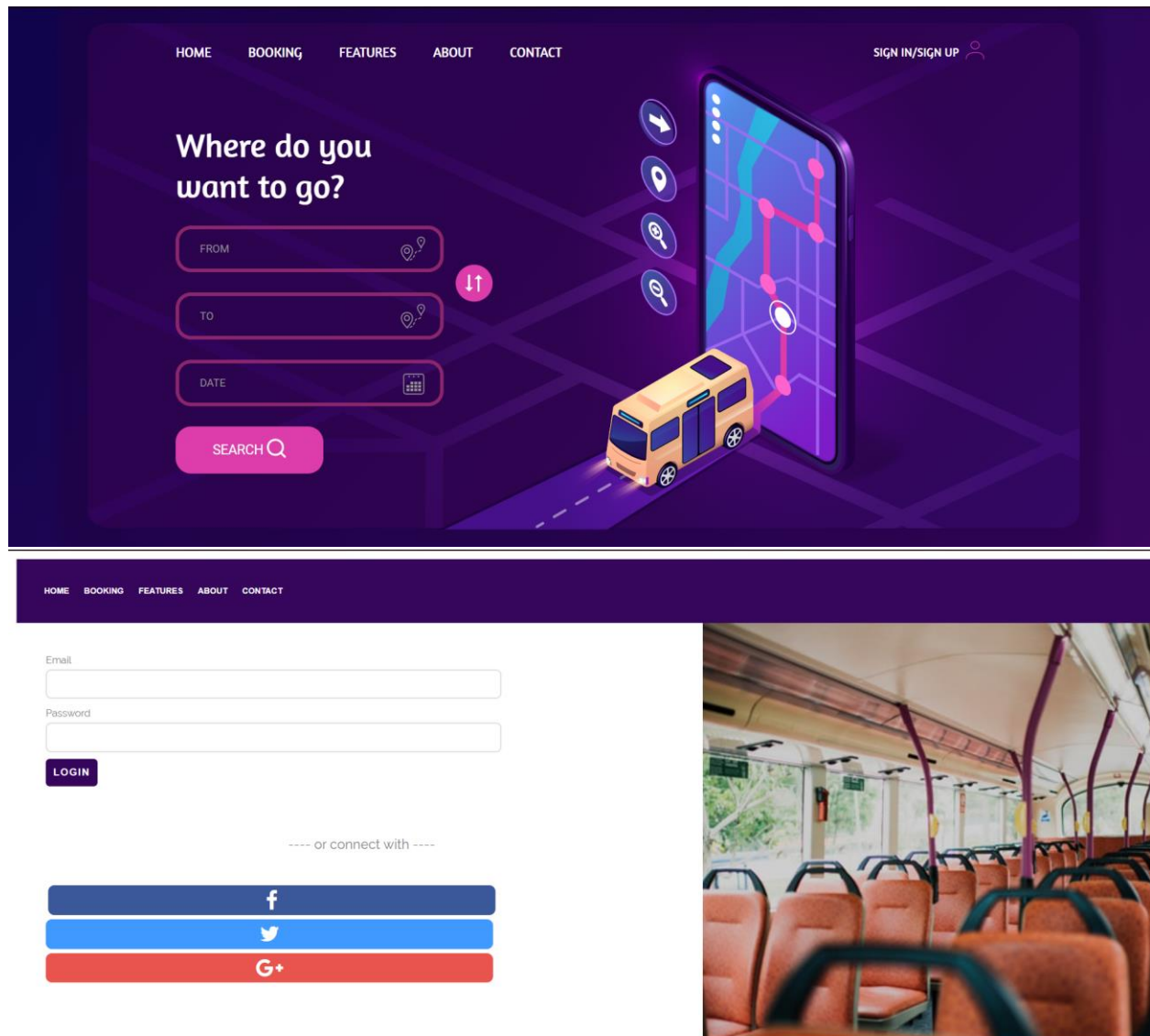
Budgetary Price

The following table shows bus management system expenses.

SL		Expense	Comment
1	UI design	xxxxxxx	
2	Front end development(HTML)	xxxxxxx	
3	Back end development	xxxxxxx	
4	Database design(Interaction)	xxxxxxx	
5	UI integration	xxxxxxx	
	Total	xxxxxxx	

Note: Price is excluding of any Tax, VAT and other levies.

Some screenshot of projects:



[HOME](#)[BOOKING](#)[FEATURES](#)[ABOUT](#)[CONTACT](#)[SIGN IN/SIGN UP](#)

Search Bus

Starting Location : Dhaka

Destination Location : Rajshahi

Sort By ▾

DHAKA
25 AUGUST, 2021

RAJSHAHI
25 AUGUST, 2021

3:30 PM

BOOK TICKETS

Price : 1000 TK

DHAKA
25 AUGUST, 2021

RAJSHAHI
25 AUGUST, 2021

3:30 PM

BOOK TICKETS

Price : 1000 TK

DHAKA
25 AUGUST, 2021

RAJSHAHI
25 AUGUST, 2021

3:30 PM

BOOK TICKETS

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Price : 1000 TK

DHAKA
25 AUGUST, 2021

RAJSHAHI
25 AUGUST, 2021

3:30 PM

BOOK TICKETS

Price : 1000 TK

EXPLORE MORE

Requirements to board

BOOK SEATS

Starting Location : **Sylhet**

Destination Location : **Dhaka**

1A	1B	1C	X
2A	2B	2C	2D
3A	3B	3C	3D
X	4B	4C	4D
5A	5B	5C	5D
6A	6B	X	X

1A	1B	1C	X
2A	2B	2C	2D
3A	3B	3C	3D
X	4B	4C	4D
5A	5B	5C	5D
6A	6B	X	X
7A	X	7C	7D
8A	X	8C	8D
X	9B	9C	9D
10A	10B	10C	10D

BOOK NOW

PAYMENT

BOOKING DETAILS

- TICKET:
- TOTAL:
- PICKUP LOCATION:
- DESTINATION:
- DATE:

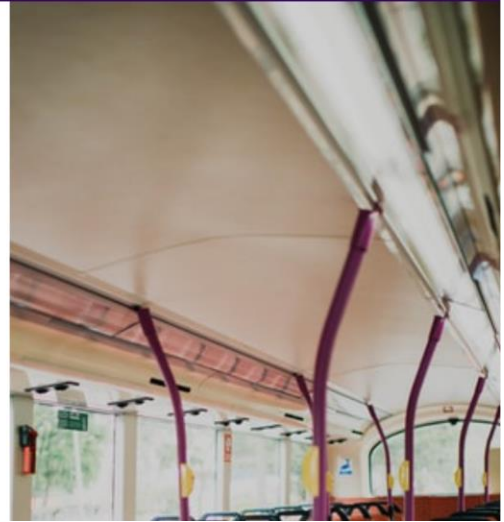
PLEASE PAY:

Email

Name

Card Number

PAY



Upcoming Booking Details

Reservation ID :	4
Bus :	Meghna-132
Booked Seats :	3
Starting Location :	Dhaka
Destination Location :	Chittagong
Departure Time :	23 August, 2021

Edit Booking Details

Starting Location :

Destination Location :

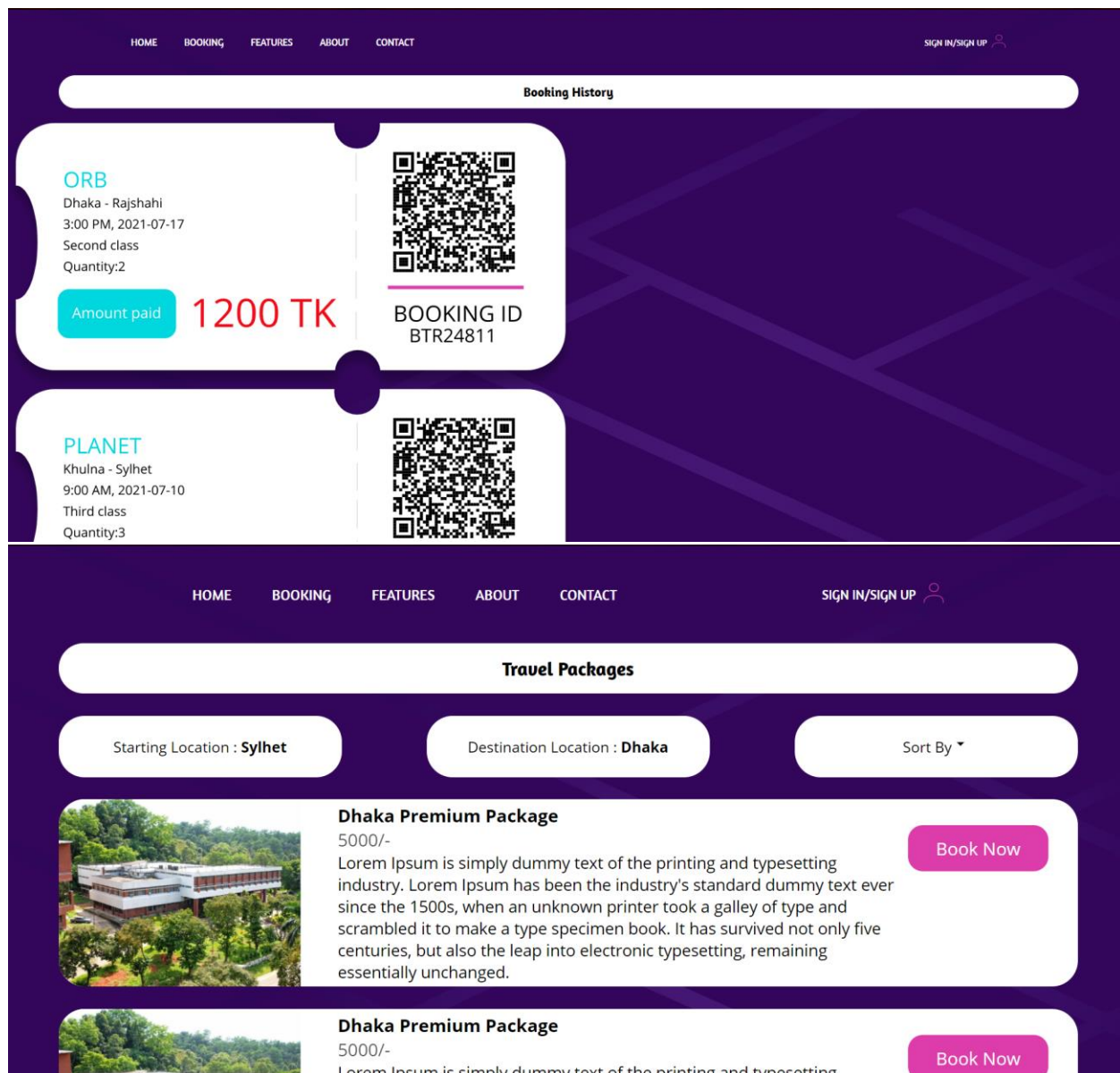
Departure Time :

Update Changes

Cancel Booking

Are you sure on cancelling the upcoming booking of yours? You can't undo after cancellation.

Cancel Booking



Conclusion:

Bus management system is to ease the process of ticket booking and keeping record of bus and drivers. Our aim to demonstrate the use of create, read, update and delete operations through this project. An idea for creating a better project was carried.

Appendix

Contact information

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