



NORTH SOUTH UNIVERSITY
DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
ER DIAGRAM , DATABASE SCHEMA & USE CASE DIAGRAM

”BUS MANAGEMENT SYSTEM”

DATABASE SYSTEM LAB
CSE311L
SECTION: 3
SEMESTER: FALL 2020

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Introduction

Bangladesh is a densely populated country. The main mean of transportation is bus because it is cheap and economic. In the market there are many tickets buying app available such as Shohoz, BDTICKETS, etc. However, none of those app provide information of driver or the condition of the bus. This web application will contain all that information and will also provide the customer a safe travel. On the other hand, it will also notify the owner of the bus about the expiration date of maintenance or fitness of car as well as expiration date of driver license.

Objective

- To easily access the ticket from home.
- Get to know about driver and the condition of bus.
- Notification of bus arrival
- Bus owner will get notification about the expiration of necessary information such as driver license
- Owner will also get to know which bus route is used by many people.
- survey report about their bus service.

Target Customers

- Passenger – People who will use our service to buy ticket. They will also get to know all the information about bus and the driver.
- Bus Owner – Bus owners will be able to maintain all the bus's route traffic and information of their buses. They will also be able to calculate the payment of their driver and utilize cost.

Value Proposition

This website will reduce the bothering and time of going to a bus stop and constantly ask them for booking a seat in bus. It will also reduce the cost of keeping a manager to keep track of the information. Bus owner will be notified for updating the papers which will reduce the chance of being late and hence, saving the penalty money.

Web Application Feature and description

The web page will open with the customer view at first. It will be general view and anyone accessing the domain will be able to view it. This view will show all the routes and buses available. Passenger has to create an account first to buy the tickets. Once a passenger has created an account, he/she can:

- Buy or book ticket .
- Suggestion for alternative.
- Rate or give suggestions.
- Access history of their past travels.
- information related to the buses they will or have already traveled.
- Notification for boarding bus.

On top right there will be log in or sign up for bus owners. They will be able to add their company to the database and see their progress. Once a bus Owner has created a profile, he/she can:

- See the information of their bus, driver and maintenance.
- weekly and monthly ranking of the bus.
- Feedback of their service.
- The current status of their bus.

Tools and Resources

HTML
Javascript
MySQL
PHP
Web server
API for sms

Challenge

One of the biggest challenge is cost. As there will be a huge data like image, tracking bus and SMS for alert, there may be a chance of high cost maintenance. Second challenge will be the verification of data. We will need to check if the data entered are reliable or not. Although Bangladesh has started digital NID cards but to access the database will not be easy, many processing need to be done. UI also need to be simple and easy so that normal people can also use it. Lastly, connection or providing security for online payment will be difficult.