North South University

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING

PROJECT PROPOSAL

BUS MANAGEMENT SYSTEM

DATABASE SYSTEM LAB
CSE311L
SECTION: 5
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GROUP: 9

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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. 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 centre of the system. They make the decision of choosing their destination, and we connect them to the right services.

Objective

- 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.

Target customers

- Tourists

- Passengers

- Citizens

Value Proposition

For anyone who wants to travel, our bus service is the fastest and safest one to get them to their desired destination. We are just one tap away from making your beautiful trip possible.

Web Application Features and Description

- **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.

Tools and Resources Used

- SQL

- HTML

- CSS

- JavaScript

- Django

- jQuery

- Python

- Figma

Challenges

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.