



International Islamic University Chittagong(IIUC)

Computer and Communication Engineering(CCE)

LAB REPORT -01

Problem definition, information gathering, and requirement specifications of Bus Transportation System

Course Code: CCE-3508

Course Title: System Analysis, Design and Development Sessional

Submitted To

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Report-1: Problem Analysis and Requirement Specifications

Introduction:

Buses are the most common and widely used transportation for going from short-distance trips to very long trips. We've to create a project that will manage all database administration and other operations such as E-ticket buying, fair checking, estimating travel time, and selecting the best routes, and others. Bus Transportation System is a web-based management system. This system will ensure that the E-Ticket buying process is smoothly done. This system will also help in decreasing errors mostly caused by human mistakes.

Problem Definition:

The bus transportation system that is utilized at the counter is an internal system that is used to sell bus tickets manually. The issues facing the company are that customers have to go to the counter to buy bus tickets or ask for bus schedules. Customers will also have to wait for a long time in order to get a bus ticket and will also need to pay cash when they buy the bus ticket.

The primary goal of this company is to automate the manual processes of booking a bus ticket for each trip taken with the Transportation Company. This method is supposed to be automated, and customers may choose their own seats. The following will be the project's specific goals:

- i) Providing a web-based bus ticket transportation system where customers may purchase bus tickets without having to wait in line at a counter.
- ii) Allowing customers to check online for bus availability and types.
- iii) Making it easier to pay for bus tickets by acquiring a pin after making payments to the many approved Banks or mobile banking systems.
- iv) Customers ability to cancel their reservations.
- v) Update and cancel payment, route, and vehicle records as an admin user

This will be a profitable organization. Most of our company's profit will come from online advertisements and will take a certain percentage of profit from tickets sold.

As far as the growth of the company is concerned, we will use online advertisements and we will update the content regularly to keep everything fresh. In addition, we will try our level best to meet the customers' expectations in every way possible.

To select the best employee for every position we will conduct many stages of interview and we will see their experience.

Information Gathering

This is a technique for acquiring information that involves paying attention to and observing people, events, and objects. The analyst comes to the company to examine how the existing system works and to learn about the system's requirements.

We gathered information by interviewing, online surveys, questionnaires, visiting the existing system.

Online surveys

Most of the information we have gathered are from the internet. We have checked various online websites like GitHub, GitLab. They have the most accurate information and they provide other companies in the same business.

Questionnaires

We used this method to gather information about various issues of the system from a large number of end users of the system. In this case, we have used closed-ended questionnaires to effectively list all possible responses, which are mutually exclusive.

Interview

As for the direct interview, we went to an existing company to know how they maintain their company and customers. It really helped us and we got a fine grasp of the full scenario. This method is frequently the best source of gathering qualitative information. It bridges the gaps in the areas of misunderstandings and minimizes future problems

Requirements Specifications

Hardware Minimum Requirements:

PC with Pentium IV processor.

4 GB RAM or above.

40 GB Hard Disk space

Software Minimum Requirements:

Operating system: Windows 7 (or latest).

Front end: Suitable Programming Language (HTML)

Integrated development environment (IDE): VS Code or Adobe Dreamweaver

Back end: PHP

System Features**1. Details for Passengers**

E-Ticket

Distance

Fair

Time

Route

2. Details for Company (Admin)

Daily sales Ticket

Profit/Loss

Updating Fairs

Updating Routes

Whether to Issue more busses

Introducing New Route

Staff Payment

Policies of Company