EMPLOYEE BUS ROUTE MANAGEMENT SYSTEM

High Level Design & Low Level Design

Document Control :

EMPLOYEE BUS ROUTE MANAGEMENT SYSTEM				
Guided by-**Rahul Tarkunde**				
Date	**Version**	**Author**	**Brief Description of Changes**	**Approver Signature**
October 20,2022	1.0			

Introduction

An EBMS / Employee Bus management system maintains the Bus facility provided by an organisation to its employees. It will generate reports employee based for salary deduction, route bus loading, high demand/requests.

1.1Intended Audience:

This document is intended to be read by Client.

1.2Acronyms/Abbreviations:

CLIENT	USER
	TO ESTABLISH CONNECTION BETWEEN CLIENTS

1.3Project Purpose:

- The purpose of this project is to manage the seats availability on various bus routes.
- Admin can add/modify/delete User from the database accordingly.
- The user can request to avail the transport facility or can opt out from it.

1.4Key Project Objectives:

1. Admin needs to login via password to enable data security.
2. Allows Admin to add, modify or delete the details of user from the File.
3. Allows Admin to view the bus routes and the seats availability.
4. Allows Admin to allocate seat according to their availability on particular bus route.
5. Allows User registration for the bus route if he is a new user.
6. Allows User to opt out from a certain bus route.

1.5 Project Scope and Limitation:

This project aims to create and develop the Employee Bus Route Management System contains an admin and a user. We make the file which contains user's Id, name and the bus route .It allows the admin to add, modify or delete the details of the users and provide seats according to the availability. All the information about a particular user is stored in a retrievable manner.

1.6 Functional Overview :

3.1.1. **EBMS_01:**add_user: It will add the user to our data base

3.1.2. **EBMS_02:**del_user: It will delete the user from the data base who is no longer interested in taking the bus service.

3.1.3. **EBMS_03 :** mod_user: It will modify the user details which are present in the user data base.

3.1.4. **EBMS_04:**add_req: The user will request the admin for the seat allotment in a particular bus route.

3.1.5. **EBMS_05:**opt_out_req: The user no longer wants to avail the facility he sends the opt out request.

3.1.6. **EBMS_06 :**see_user: It will list all the details of the user which are present in the user data base.

3.1.7. **EBMS_07 :**see_bus: It will display all the details of the bus routes .

3.1.8. **EBMS_08:**see_queue: The users can add to the queue if there no availability of seats in the bus.

2. Design Overview:

Instant Chatters comprises of the following modules:

Name of the Module	void add_user()
Handled by	Gullapudi Kusuma Navya Suseela
Description	This feature allows the admin to add the user.

Name of the Module	void del_user()
Handled by	Bhavani Mahadevi Vegiraju
Description	This feature allows the admin to delete the user from the database who is no longer interested to take the bus service.

Name of the Module	void mod_user()
Handled by	Lalit Vats
Description	This feature will modify the user details which are present in the user database

Name of the Module	void see_bus()
Handled by	Bhavani Mahadevi Vegiraju
Description	It will display all the details of the bus routes.

Name of the Module	void see_user()
Handled by	Rishik Purakayastha
Description	It will list all the details of the user which are present in the user database.

Name of the Module	void see_queue()
Handled by	Gayani Seelamneni
Description	The users can add to the queue if there is no availability of seats in the bus.

Name of the Module	void add_req()
Handled by	Lalit Vats
Description	The user will request the admin for the seat allotment in a particular bus route.

Name of the Module	void opt_req()
Handled by	Gayani Seelamneni
Description	The user no longer wants to avail the facility he/she sends the opt out request.

2.1 Design Objectives:

This project aims to create and develop the Employee Bus Route Management System contains an admin and a user. We make the file which contains user's Id, name and the bus route. It allows the admin to add, modify or delete the details of the users and provide seats according to the availability. All the information about a particular user is stored in a retrievable manner.

2.2 Performance:

The system will work on the admin terminal. The performance depends on the hardware component of the admin's system.

2.3 Maintenance:

Very little maintenance should be required for this setup. An initial configuration will be the only system required interaction after system is put together. The only other user maintenance would be any changes to settings after setup, and any specified special cases where user settings or history need to be changed. Physical maintenance on the system's parts may be required, and would result in temporary loss of data or Internet. Upgrades of hardware and software should have little effect on this project but may result in downtime.

3. Environment Description:

3.1 Time Zone Support: IST- Kolkata

3.2 Language Support: English

3.3 User Desktop Requirements:

a. 64-bit processor, 1 GHz or faster

b. At least 2 GB free hard drive space

c. At least 1 GB RAM

3.4 Server-Side Requirements:

a. 64-bit processor, 1 GHz or faster

b. At least 1 GB free hard drive space

c. At least 1GB RAM

3.4.1 Deployment Considerations:

a. Easy setup: no session storage daemon, use tmpfs and memory caching to enhance performance.

b. Local storage is used.

c. No network latency to consider.

d. To scale buys a bigger CPU, more memory, larger hard drive, or additional hardware.

3.4.2 Application Server Disk Space:

No such disk space is required as the program is fully functional on onlineIDE(s) as well. The Local Operating System is required and one text file to store the records of processes.

3.4.3 Database Server Disk Space:

No such disk space is required as the program is fully functional on online IDE(s) as well. The Local Operating System is required and one text file to store the records of processes.

3.4.4 Integration Requirements:

1. Language: C

2. Tools: Splint ,Valgrind, Makefile

3. Complier: gcc

4. Linux Environment

3.4.5 Jobs:

We can establish connections between clients who are connected to the server. And we can search the chat history of the clients.

3.4.6 Network: End to End

3.5 Configuration:

3.5.1: Operating System: Linux environment