Project

BUS TICKET BOOKING SYSTEM

By

Mir Anupam Hossain Akib

ID: 191-35-2640

Section: B

Department of Software Engineering,

Daffodil International University

A course project (SE 133: Software Development Capstone Project) submitted in fulfillment of the requirement for the degree of Bachelor of Science in Software Engineering

Fall – 2019

Github Link Of The Project:

https://github.com/AnupamAkib/My-Project/tree/master/Bus-Ticket-Booking-System

DECLARATION

It hereby declared that this course project title on “**BUS TICKET BOOKING SYSTEM**” under the supervision of **Dr. Md. Asraf Ali, Associate Professor, Department of Software Engineering**, **Daffodil International University**. It is also declared that neither this project nor any part of this has been submitted elsewhere for award or any degree.

Student:

Name: Mir Anupam Hossain Akib

ID: 191-35-2640

Batch: 28th

Department of Software Engineering

Faculty of Science & Information Technology

Daffodil International University

Certified by:

Dr. Md. Asraf Ali

Associate Professor

Department of Software Engineering

Faculty of Science & Information Technology

Daffodil International University

ACKNOWLEDGEMENT

First of all, I am grateful to The Almighty God for giving me the ability to complete this project. Today I am felling proud for myself. Because, to be a student of Daffodil International University. And I am thankful to Daffodil International University for giving me a chance to prove myself by showing this project. I thank to our Department Head **Dr. Touhid Bhuiyan**. And I want to thank to our respected class teacher **Dr. Md. Asraf Ali** for supporting and given your guideline and valuable advices.

Bus Ticket Booking System is not a new system. But this software will give you better experience. I hope every people who will use this system will be happy after completing their transaction.

To build this software I have collected many types of information from different Bus Counter and online sources. And also my friends help to build this software. At last I also thank my parents for their unceasing encouragement and support. On record, my sense of gratitude to one and all who, directly or indirectly, have lent their helping hand in this project.

Thank You,

MIR ANUPAM HOSSAIN AKIB

TABLE OF CONTENT

LIST OF FIGURE

BUS TICKET BOOKING SYSTEM

ABSTRACT

This is a project documentation on “Bus Ticket Booking System”. During the making of this project I explored new ideas and functionality. This report reflects my steps taken at various levels of programming skills.

This Project is a booking system for an existing bus counter. This is a C Project which helps to manage tickets of buses. The manager and user have to log in with username and password. Without log in manager or user can’t enter the system. Manager can manage the whole system. User can book tickets.

The main objectives of this project is to build a Software for booking bus tickets easily and within a short time. Manager can add bus and route or delete and also edit product information. User can book tickets by selecting their bus name, seat number and route.

We can use this software for making easy of all management system of a bus counter and there is no waste of time.

CHAPTER 1: INTRODUCTION

1.1 Background

In this 21th century, we are living in information era. Day by day information is increasing in all sectors, but ability to store them proper way and make proper use of that information does not growth. By definition, bus ticket booking system is a system where user can book their bus for their travel from their home within a short time. Manager can check user’s booking list and edit/add/delete buses and routes.

1.2 Motivation of the project

The motivation for doing this project is because I have seen many bus counter with no digitalization. This is almost 2020 and people still buying their ticket through maintaining a line in front of bus counter. It takes too much time. But as times are valuable, I made this project to optimize it.

1.3 Problem Statement

User can login. After a successful login people can book ticket. After login the system will ask user to select a route. After selecting user will see all available bus in the selected route. Then user needs to select the bus name which he wants to travel with. After selecting bus, user will see all available seat in a bus seat diagram. Then he needs to select seats as he wants to book. After booking system will save it and tell the user how costly it is going to be. Manager can see the information after login in the system.

CHAPTER 2: METHODOLOGY

At first one need to login the system to use it. User is manager and person. After successful login manager can see the menu and user also can able to see the menu. Manager menu and user menu are not same.

For User:

2.1 Login

User need to login first to be able to access the system.

2.2 Sign up

New user can signup to the system by providing there information.

2.3 Main Menu

After successfully entered username and password user can use all the option from main menu. Main menu has following options:

1. Available Route
2. Selecting bus
3. Booking information
4. Exit

2.3.1 Available Route

In this option user will be able to see which route is available. User needs to select one option from it.

2.3.2 Selecting bus

After selecting route, it will appear. Here user can select bus in which he wants to travel with.

2.3.3 Booking Information

After selecting bus, user will be able to see this function. Here he can see which seat is available and which seat is not. He need to select seats to confirm his booking.

2.3.4 Exit

User will exit from the system after pressing any key.

For Manager:

2.4 Manager Login

Manager also needs to login for security reason. After login, he will se main menu of manager. Username for manager is “**admin**” and password is “**0000**”

2.5 Open User Booking Records

Here manager can see who booked bus with their all information.

2.6 Add A Bus

Manager can add bus using this option if he wants.

2.7 Remove A Bus

Manager can delete any bus or route if he wants using this option.

2.8 Delete All Booked Seat Data

Using this option, manager can delete all data of booking seat. All booking seat will be turn into available seat if manager do it.

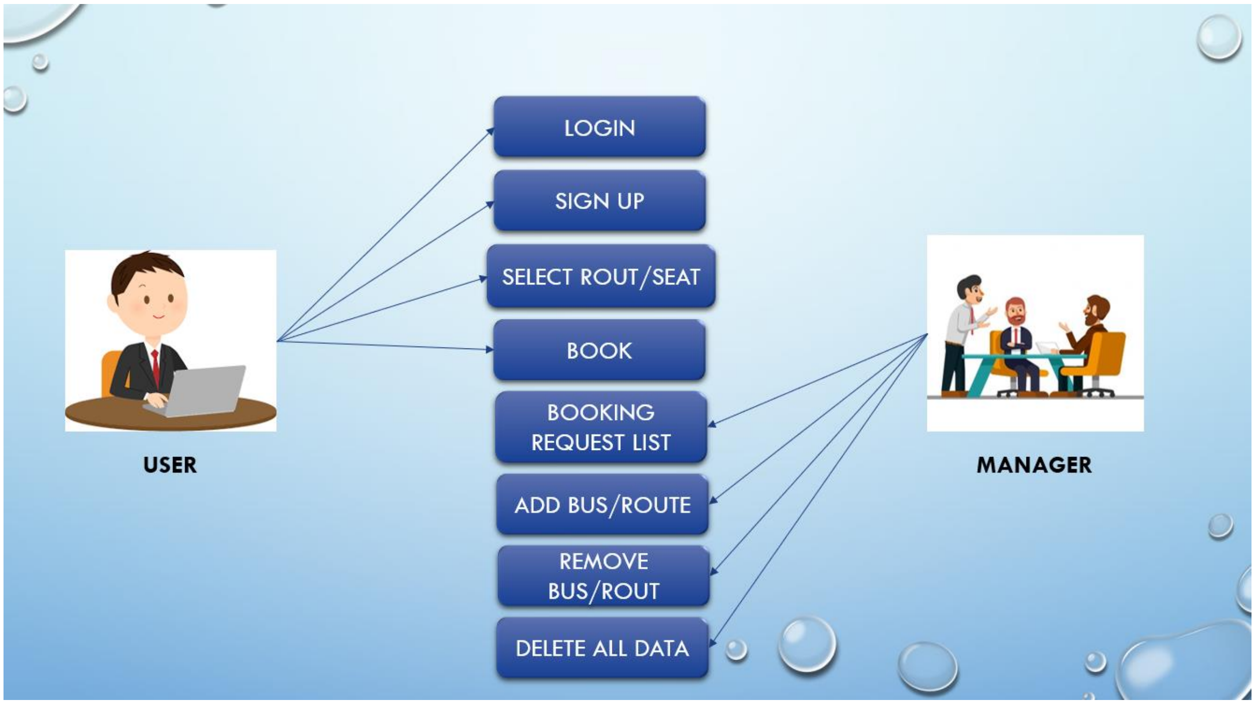
2.9 Delete All User Booking Data

All user data including booking history will be deleted if manager use this option.

2.10 Removing A User Booked History Individually

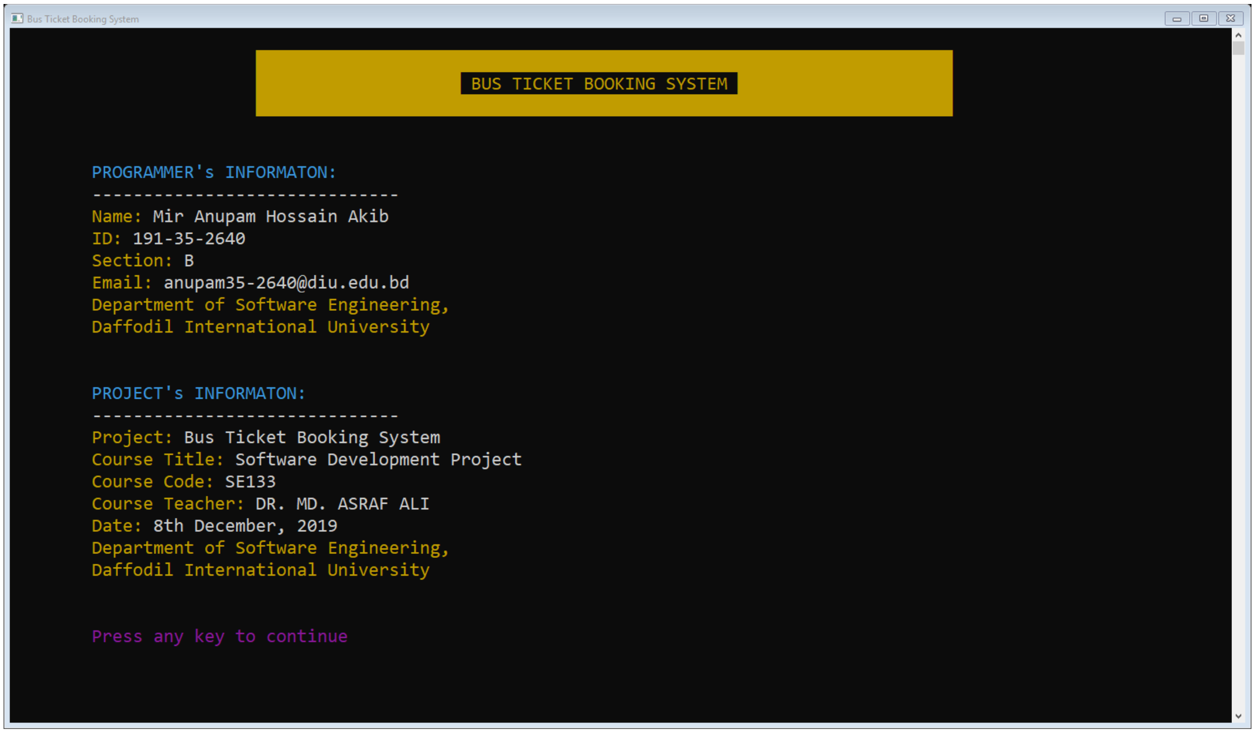
Manager can remove any users booked information individually as well

2.11 Use Case Diagram



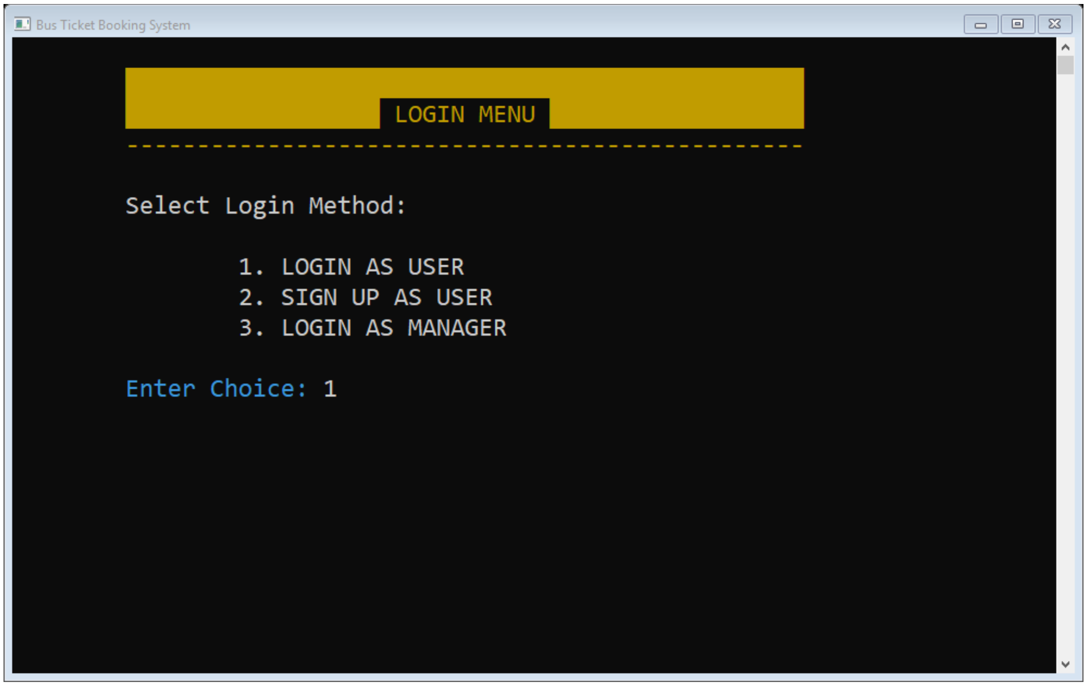
CHAPTER 3: RESULTS AND DISCUSSION

3.1 Information (Home) Page



```
                         BUS TICKET BOOKING SYSTEM

PROGRAMMER's INFORMATON:
------------------------------
Name: Mir Anupam Hossain Akib
ID: 191-35-2640
Section: B
Email: anupam35-2640@diu.edu.bd
Department of Software Engineering,
Daffodil International University


PROJECT's INFORMATON:
------------------------------
Project: Bus Ticket Booking System
Course Title: Software Development Project
Course Code: SE133
Course Teacher: DR. MD. ASRAF ALI
Date: 8th December, 2019
Department of Software Engineering,
Daffodil International University


Press any key to continue
```

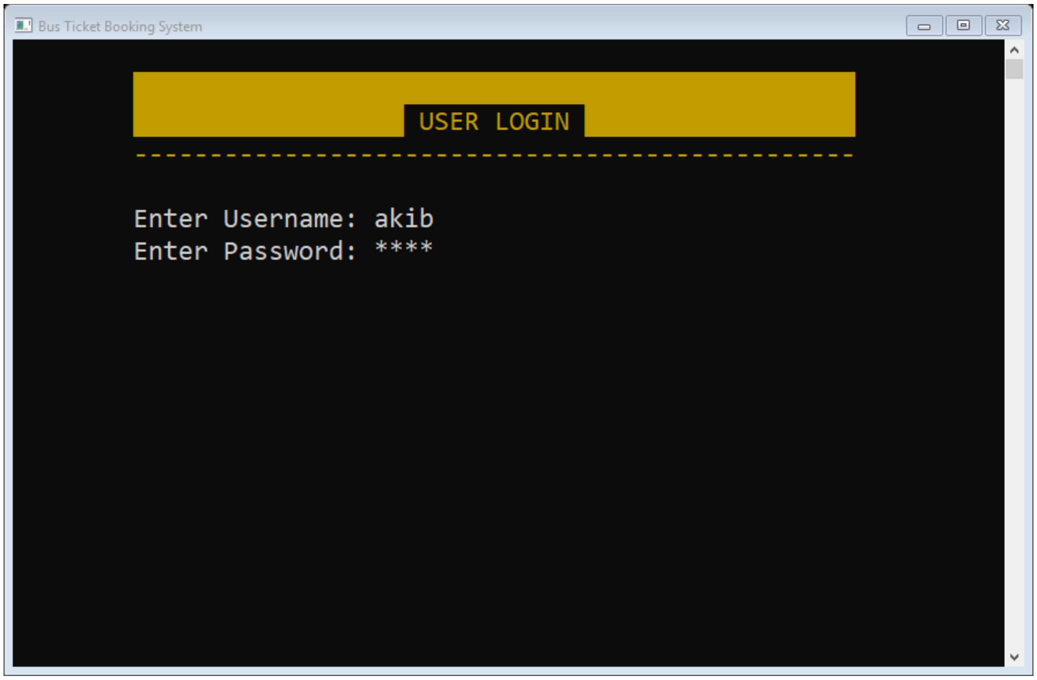
3.2 Login Menu



```
                  LOGIN MENU
----------------------------------------------

Select Login Method:

          1. LOGIN AS USER
          2. SIGN UP AS USER
          3. LOGIN AS MANAGER

Enter Choice: 1
```

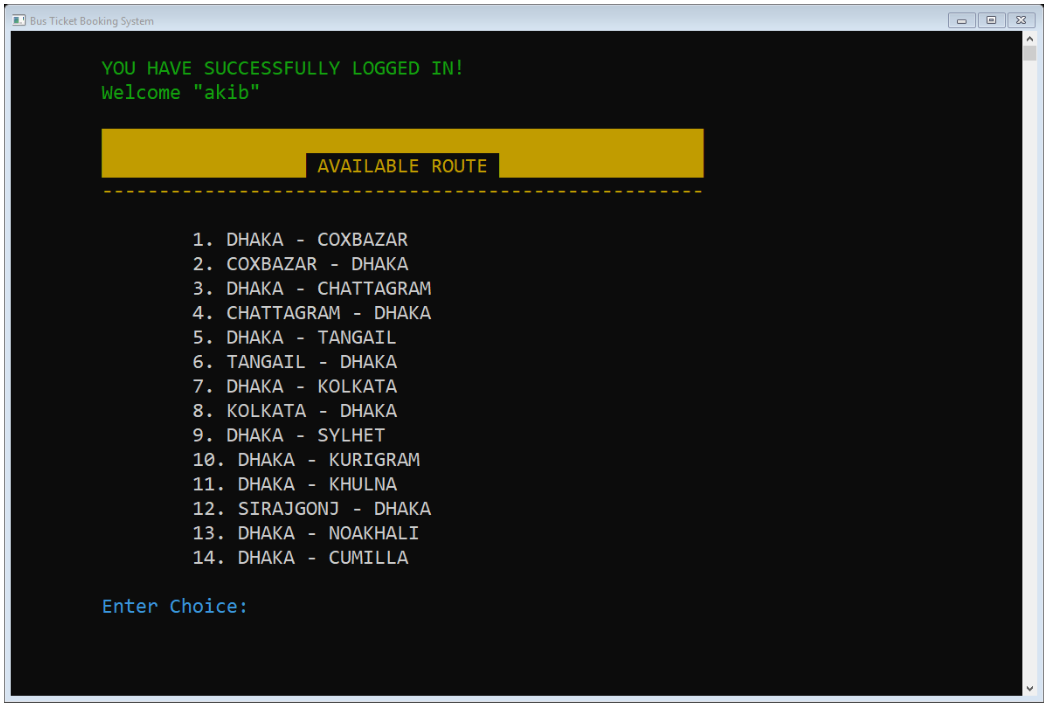
Here we selected 1. So, we are going to login as user.

3.3 User Login



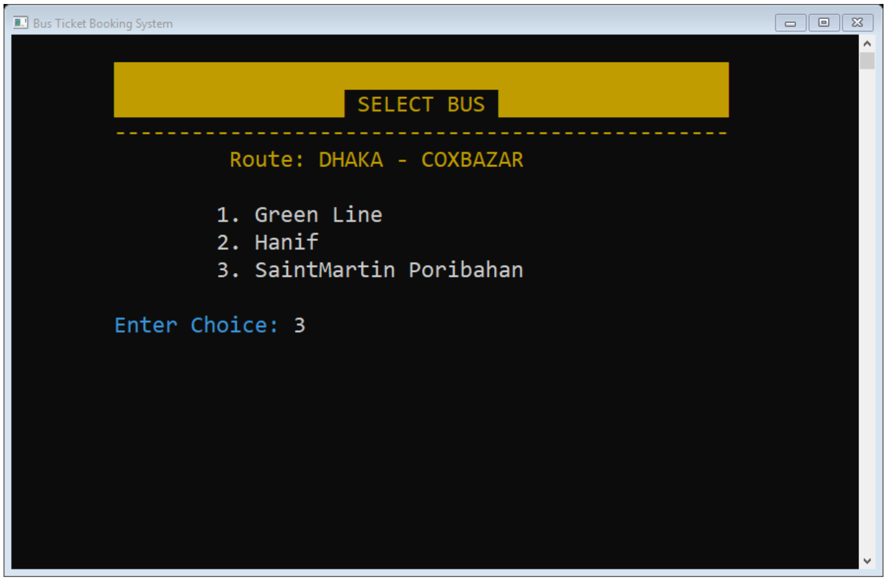
```
USER LOGIN
-----------------------------------------------

Enter Username: akib
Enter Password: ****
```

3.4 Available Route



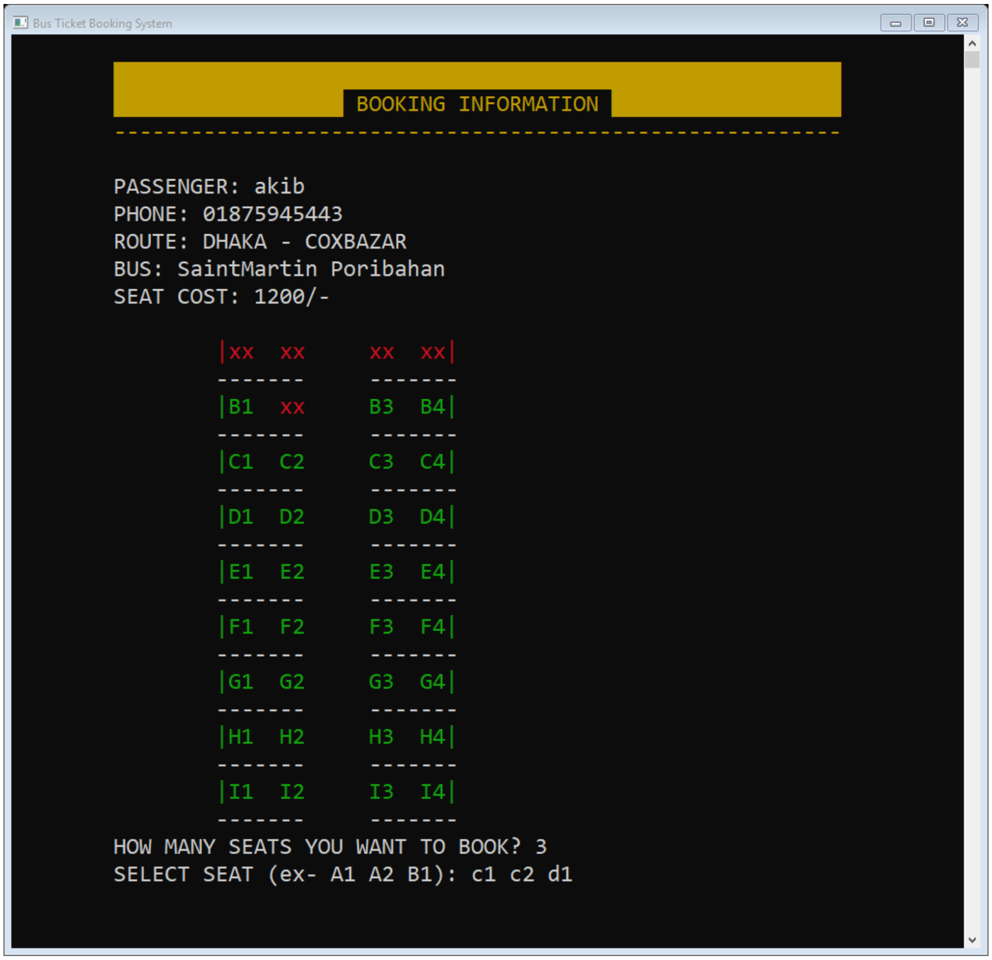
```
YOU HAVE SUCCESSFULLY LOGGED IN!
Welcome "akib"

            AVAILABLE ROUTE
-----------------------------------------------------

        1. DHAKA - COXBAZAR
        2. COXBAZAR - DHAKA
        3. DHAKA - CHATTAGRAM
        4. CHATTAGRAM - DHAKA
        5. DHAKA - TANGAIL
        6. TANGAIL - DHAKA
        7. DHAKA - KOLKATA
        8. KOLKATA - DHAKA
        9. DHAKA - SYLHET
        10. DHAKA - KURIGRAM
        11. DHAKA - KHULNA
        12. SIRAJGONJ - DHAKA
        13. DHAKA - NOAKHALI
        14. DHAKA - CUMILLA

Enter Choice:
```

3.5 Selecting Bus



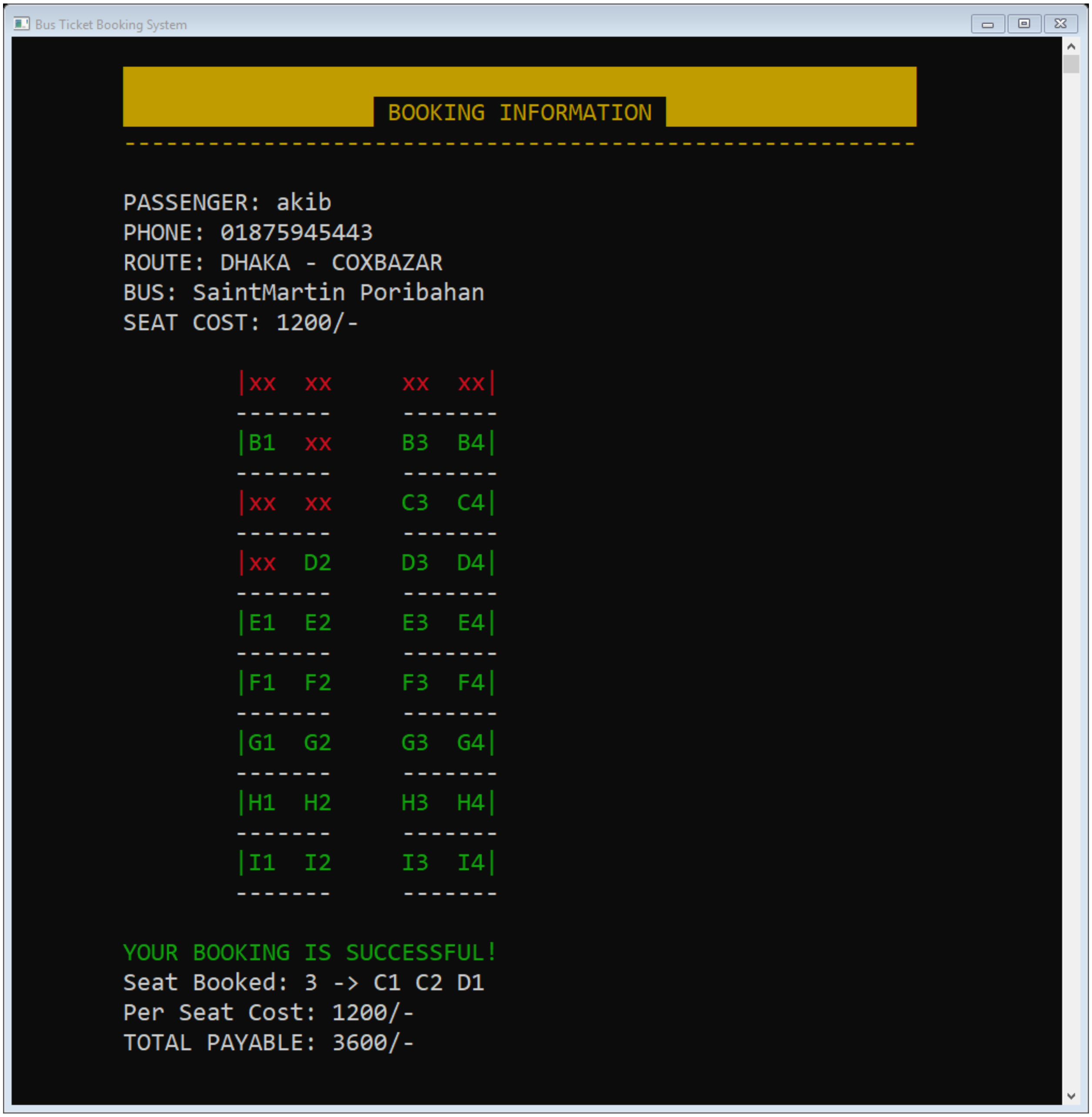
```
                    SELECT BUS
------------------------------------------------
         Route: DHAKA - COXBAZAR

        1. Green Line
        2. Hanif
        3. SaintMartin Poribahan

Enter Choice: 3
```

3.6 Booking Information



```
                  BOOKING INFORMATION
---------------------------------------------------------

PASSENGER: akib
PHONE: 01875945443
ROUTE: DHAKA - COXBAZAR
BUS: SaintMartin Poribahan
SEAT COST: 1200/-

        |xx  xx     xx  xx|
        -------     -------
        |B1  xx     B3  B4|
        -------     -------
        |C1  C2     C3  C4|
        -------     -------
        |D1  D2     D3  D4|
        -------     -------
        |E1  E2     E3  E4|
        -------     -------
        |F1  F2     F3  F4|
        -------     -------
        |G1  G2     G3  G4|
        -------     -------
        |H1  H2     H3  H4|
        -------     -------
        |I1  I2     I3  I4|
        -------     -------
HOW MANY SEATS YOU WANT TO BOOK? 3
SELECT SEAT (ex- A1 A2 B1): c1 c2 d1
```

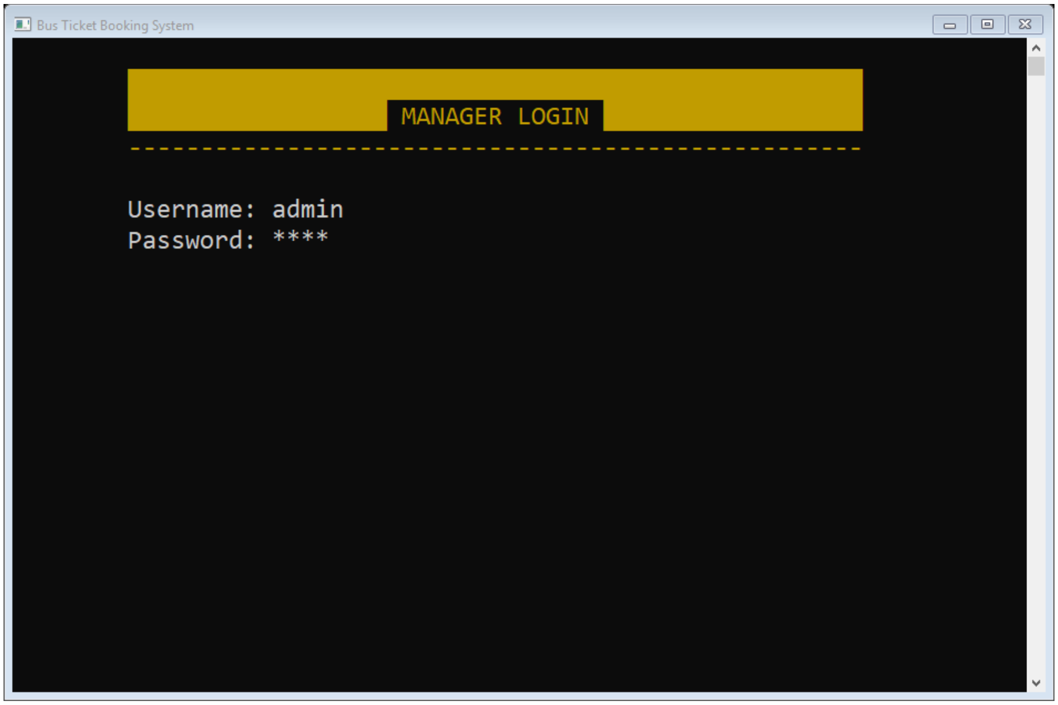
3.7 Confirmation Of Booking



```
                   BOOKING INFORMATION
---------------------------------------------------------

PASSENGER: akib
PHONE: 01875945443
ROUTE: DHAKA - COXBAZAR
BUS: SaintMartin Poribahan
SEAT COST: 1200/-

        |xx  xx     xx  xx|
        -------     -------
        |B1  xx     B3  B4|
        -------     -------
        |xx  xx     C3  C4|
        -------     -------
        |xx  D2     D3  D4|
        -------     -------
        |E1  E2     E3  E4|
        -------     -------
        |F1  F2     F3  F4|
        -------     -------
        |G1  G2     G3  G4|
        -------     -------
        |H1  H2     H3  H4|
        -------     -------
        |I1  I2     I3  I4|
        -------     -------

YOUR BOOKING IS SUCCESSFUL!
Seat Booked: 3 -> C1 C2 D1
Per Seat Cost: 1200/-
TOTAL PAYABLE: 3600/-
```

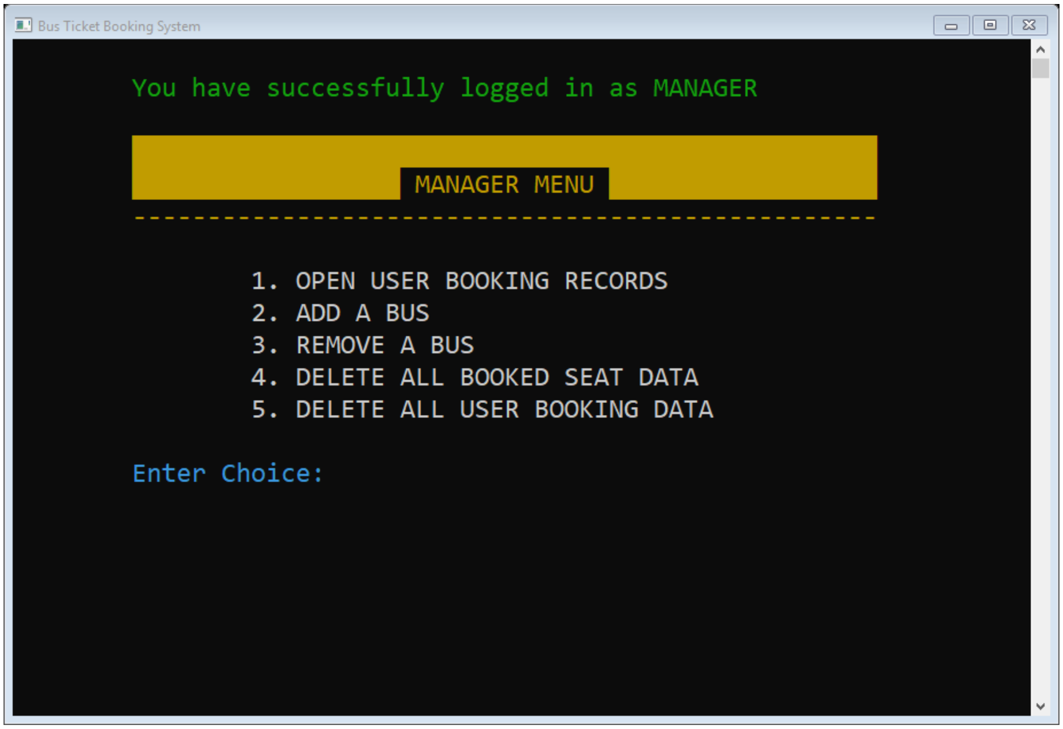
Now, we are going to login as manager

3.8 Manager Login



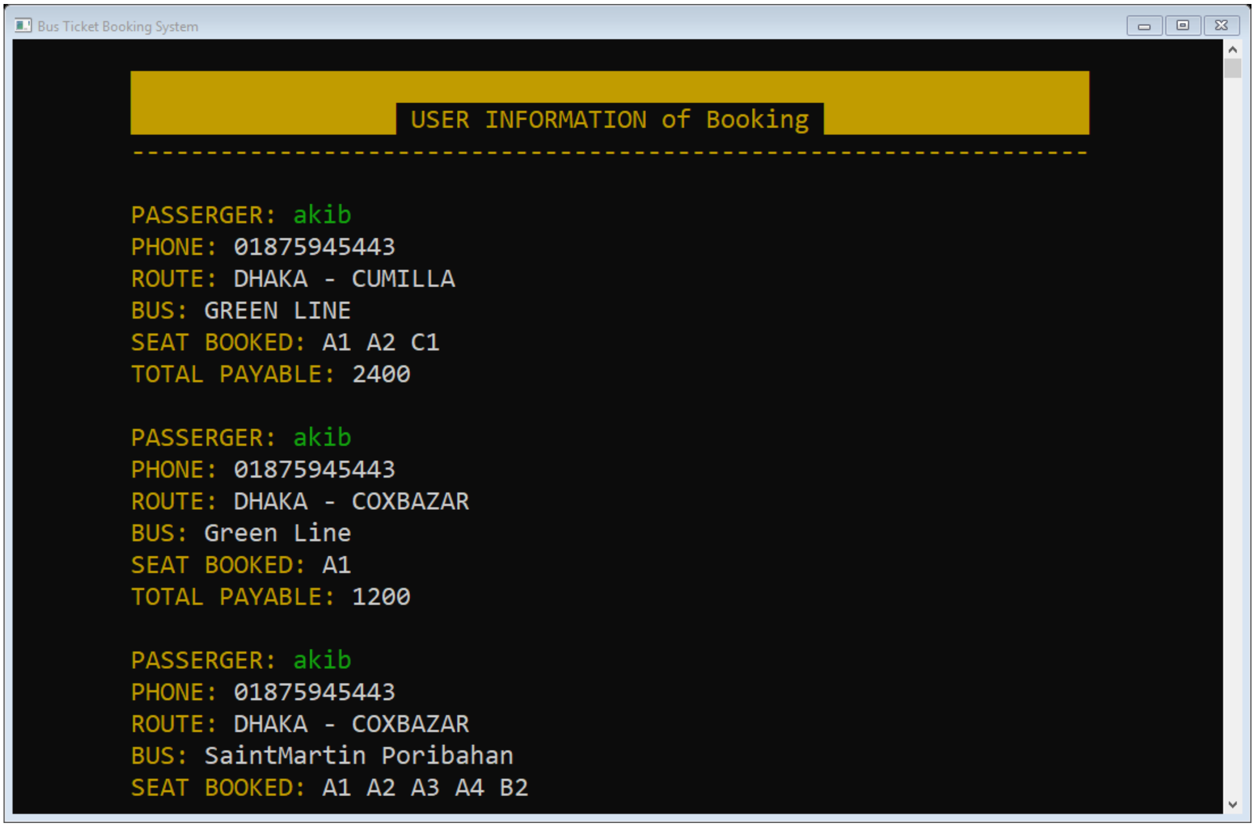
```
                    MANAGER LOGIN
 ------------------------------------------------------

 Username: admin
 Password: ****
```

3.9 Manager Menu



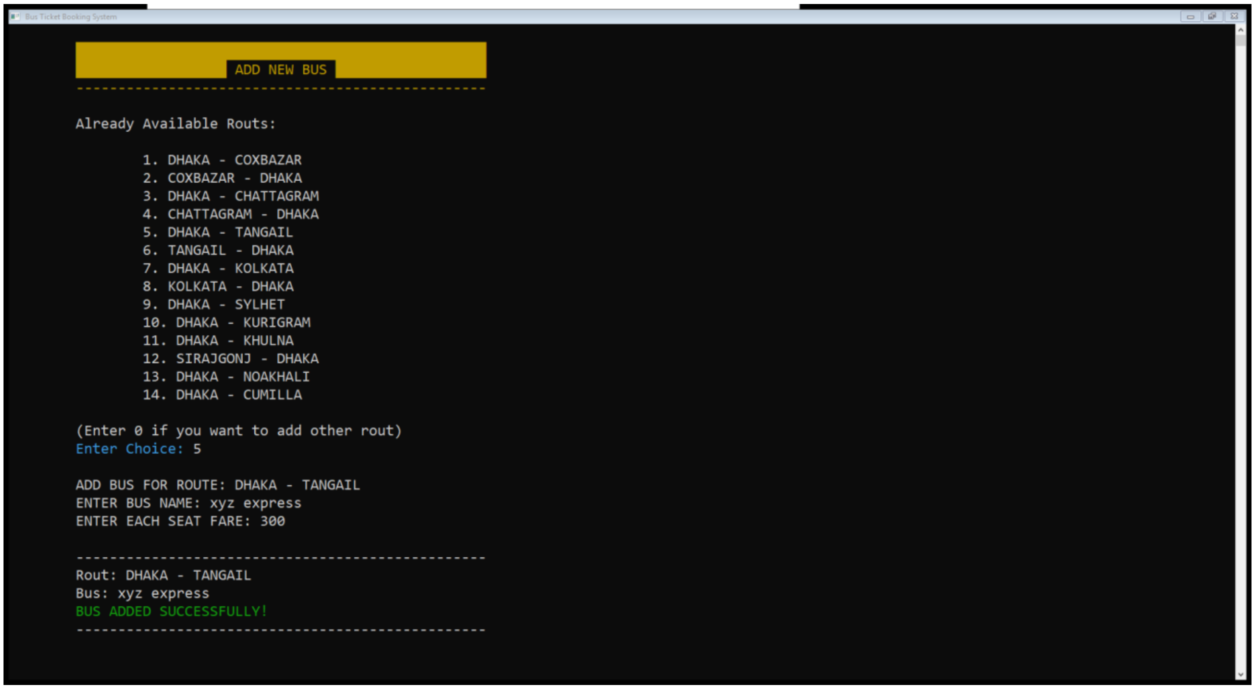
```
 You have successfully logged in as MANAGER

                    MANAGER MENU
 ------------------------------------------------------

         1. OPEN USER BOOKING RECORDS
         2. ADD A BUS
         3. REMOVE A BUS
         4. DELETE ALL BOOKED SEAT DATA
         5. DELETE ALL USER BOOKING DATA

 Enter Choice:
```

3.9.1 Open User Booking Records



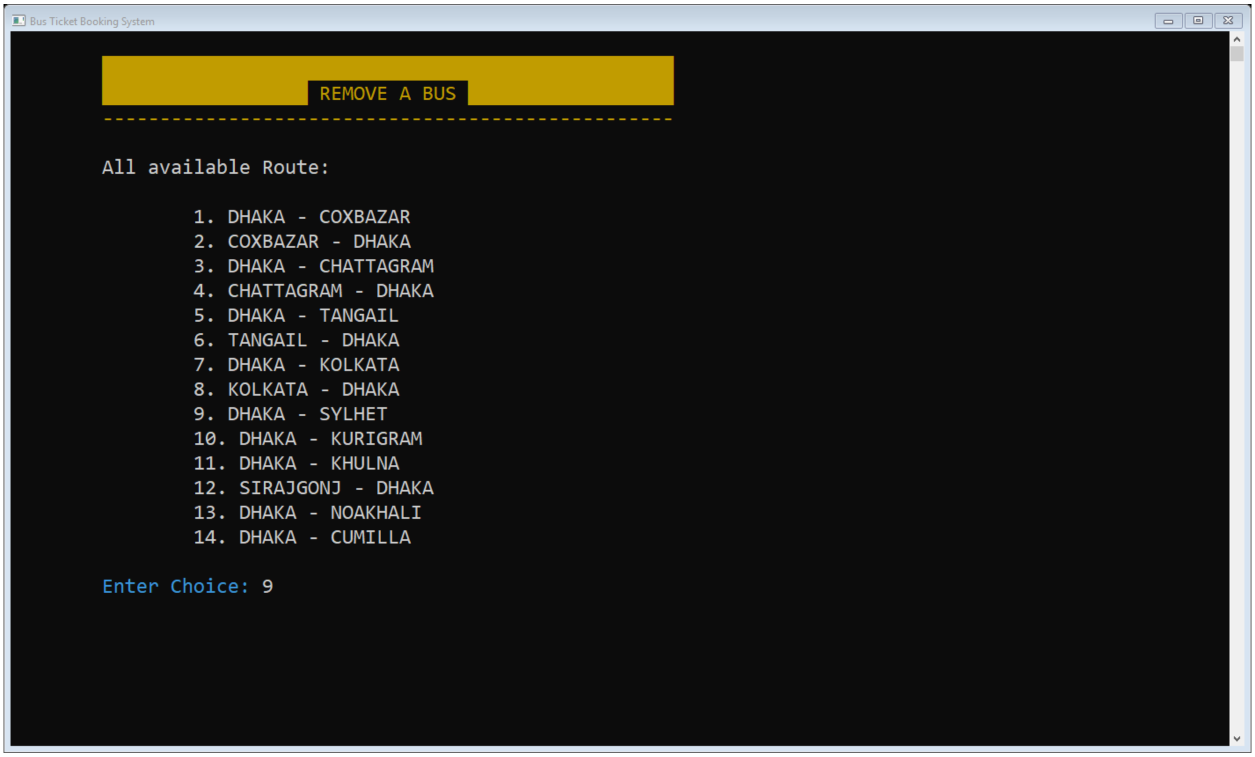
```
        USER INFORMATION of Booking
-----------------------------------------------------------------


PASSERGER: akib
PHONE: 01875945443
ROUTE: DHAKA - CUMILLA
BUS: GREEN LINE
SEAT BOOKED: A1 A2 C1
TOTAL PAYABLE: 2400

PASSERGER: akib
PHONE: 01875945443
ROUTE: DHAKA - COXBAZAR
BUS: Green Line
SEAT BOOKED: A1
TOTAL PAYABLE: 1200

PASSERGER: akib
PHONE: 01875945443
ROUTE: DHAKA - COXBAZAR
BUS: SaintMartin Poribahan
SEAT BOOKED: A1 A2 A3 A4 B2
```

3.9.2 Add A Bus

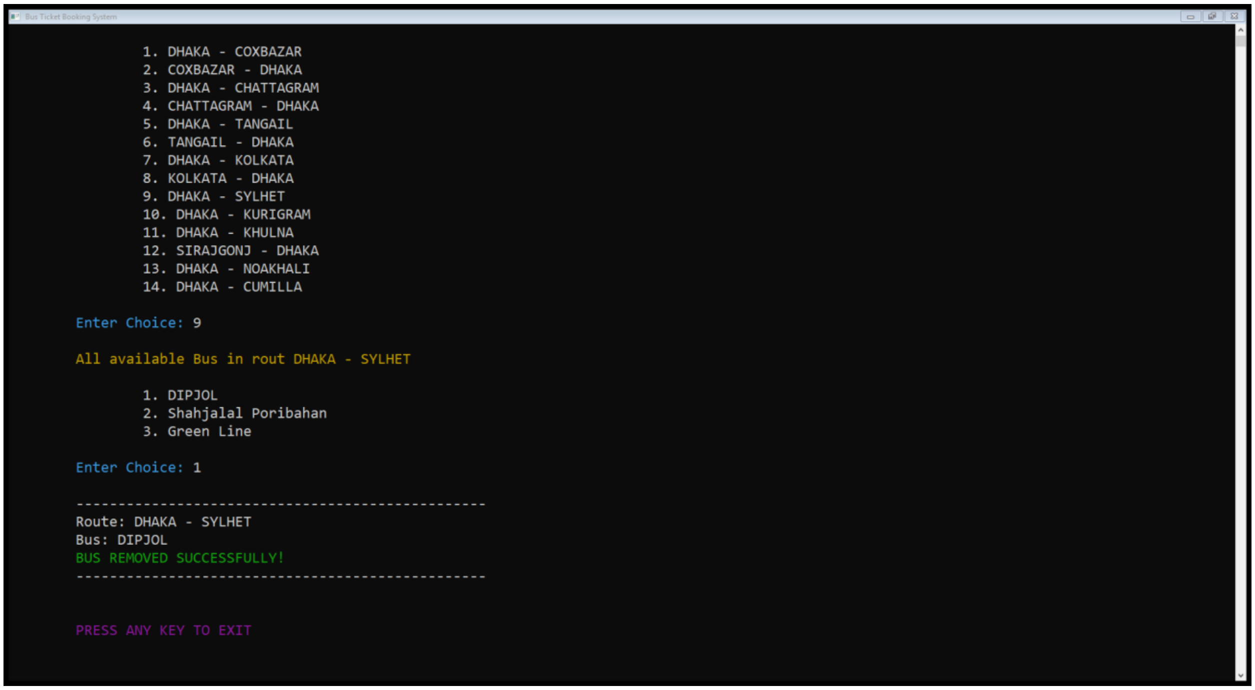


```
          ADD NEW BUS
-------------------------------------------------

Already Available Routs:

        1. DHAKA - COXBAZAR
        2. COXBAZAR - DHAKA
        3. DHAKA - CHATTAGRAM
        4. CHATTAGRAM - DHAKA
        5. DHAKA - TANGAIL
        6. TANGAIL - DHAKA
        7. DHAKA - KOLKATA
        8. KOLKATA - DHAKA
        9. DHAKA - SYLHET
        10. DHAKA - KURIGRAM
        11. DHAKA - KHULNA
        12. SIRAJGONJ - DHAKA
        13. DHAKA - NOAKHALI
        14. DHAKA - CUMILLA

(Enter 0 if you want to add other rout)
Enter Choice: 5

ADD BUS FOR ROUTE: DHAKA - TANGAIL
ENTER BUS NAME: xyz express
ENTER EACH SEAT FARE: 300

-------------------------------------------------
Rout: DHAKA - TANGAIL
Bus: xyz express
BUS ADDED SUCCESSFULLY!
-------------------------------------------------
```

3.9.3 Remove A Bus

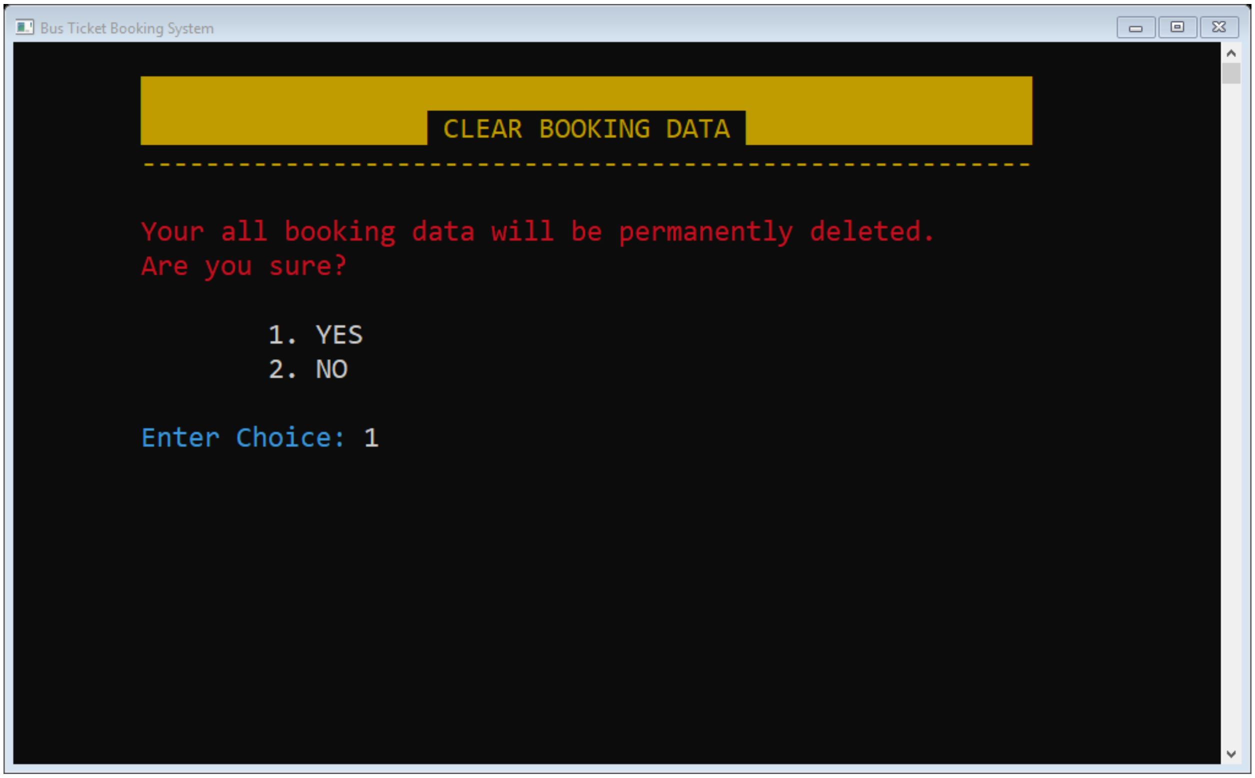


```
    REMOVE A BUS
-------------------------------------------------

All available Route:

        1. DHAKA - COXBAZAR
        2. COXBAZAR - DHAKA
        3. DHAKA - CHATTAGRAM
        4. CHATTAGRAM - DHAKA
        5. DHAKA - TANGAIL
        6. TANGAIL - DHAKA
        7. DHAKA - KOLKATA
        8. KOLKATA - DHAKA
        9. DHAKA - SYLHET
        10. DHAKA - KURIGRAM
        11. DHAKA - KHULNA
        12. SIRAJGONJ - DHAKA
        13. DHAKA - NOAKHALI
        14. DHAKA - CUMILLA

Enter Choice: 9
```

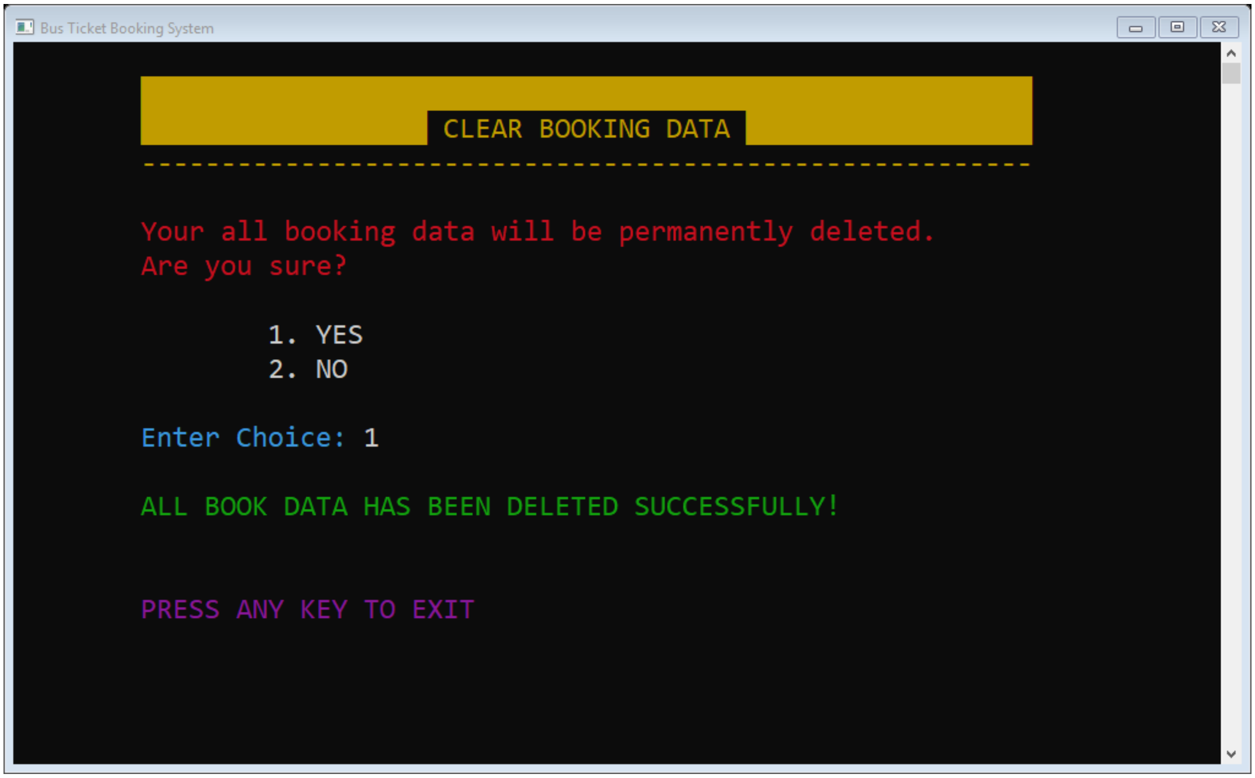


```
        1. DHAKA - COXBAZAR
        2. COXBAZAR - DHAKA
        3. DHAKA - CHATTAGRAM
        4. CHATTAGRAM - DHAKA
        5. DHAKA - TANGAIL
        6. TANGAIL - DHAKA
        7. DHAKA - KOLKATA
        8. KOLKATA - DHAKA
        9. DHAKA - SYLHET
        10. DHAKA - KURIGRAM
        11. DHAKA - KHULNA
        12. SIRAJGONJ - DHAKA
        13. DHAKA - NOAKHALI
        14. DHAKA - CUMILLA

Enter Choice: 9

All available Bus in rout DHAKA - SYLHET

        1. DIPJOL
        2. Shahjalal Poribahan
        3. Green Line

Enter Choice: 1

-------------------------------------------------
Route: DHAKA - SYLHET
Bus: DIPJOL
BUS REMOVED SUCCESSFULLY!
-------------------------------------------------


PRESS ANY KEY TO EXIT
```

3.9.4 Delete All Booked Seat Data

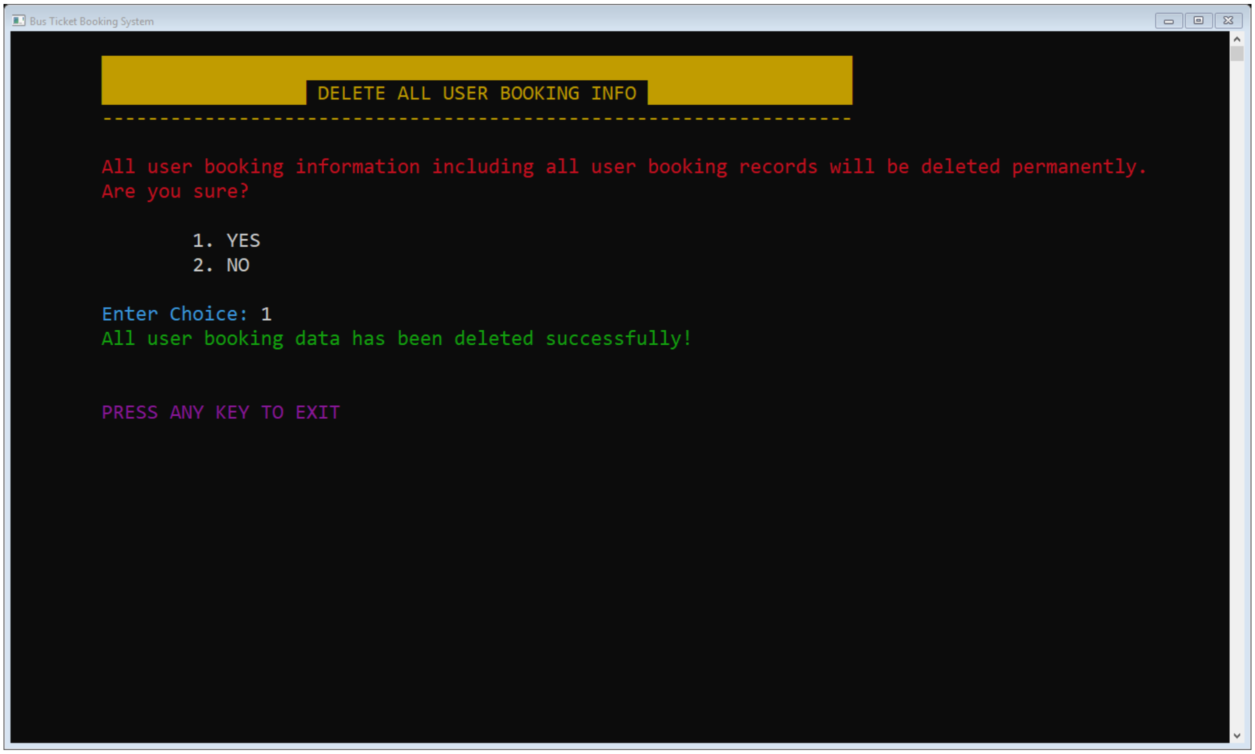


```
                CLEAR BOOKING DATA
--------------------------------------------------------

Your all booking data will be permanently deleted.
Are you sure?

        1. YES
        2. NO

Enter Choice: 1
```



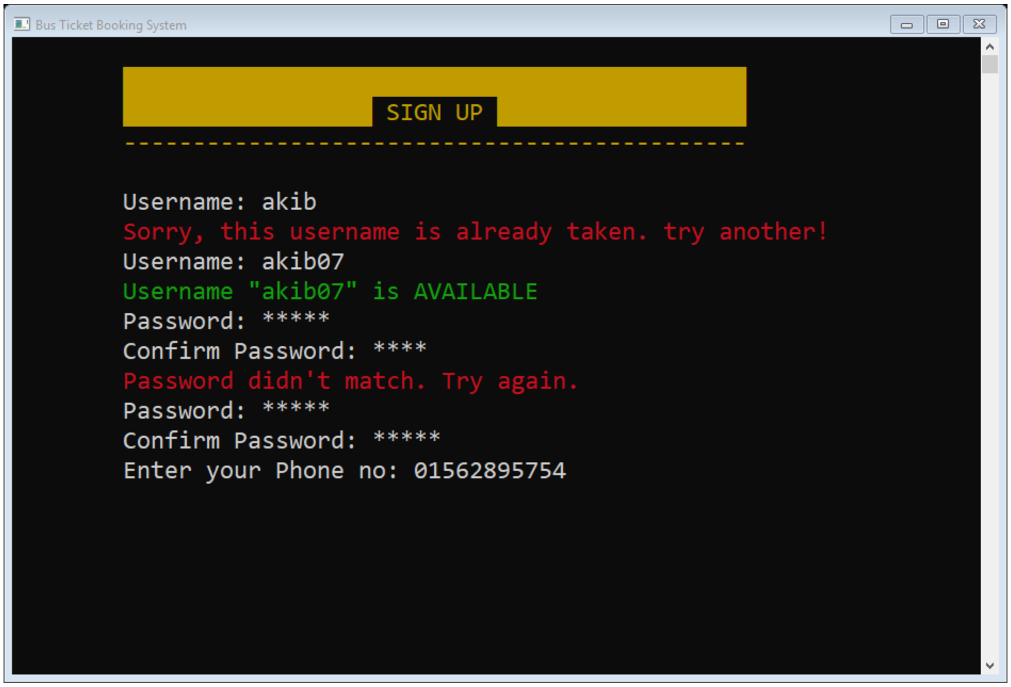
```
                CLEAR BOOKING DATA
--------------------------------------------------------

Your all booking data will be permanently deleted.
Are you sure?

        1. YES
        2. NO

Enter Choice: 1

ALL BOOK DATA HAS BEEN DELETED SUCCESSFULLY!


PRESS ANY KEY TO EXIT
```

3.9.5 Delete All User Booking Data

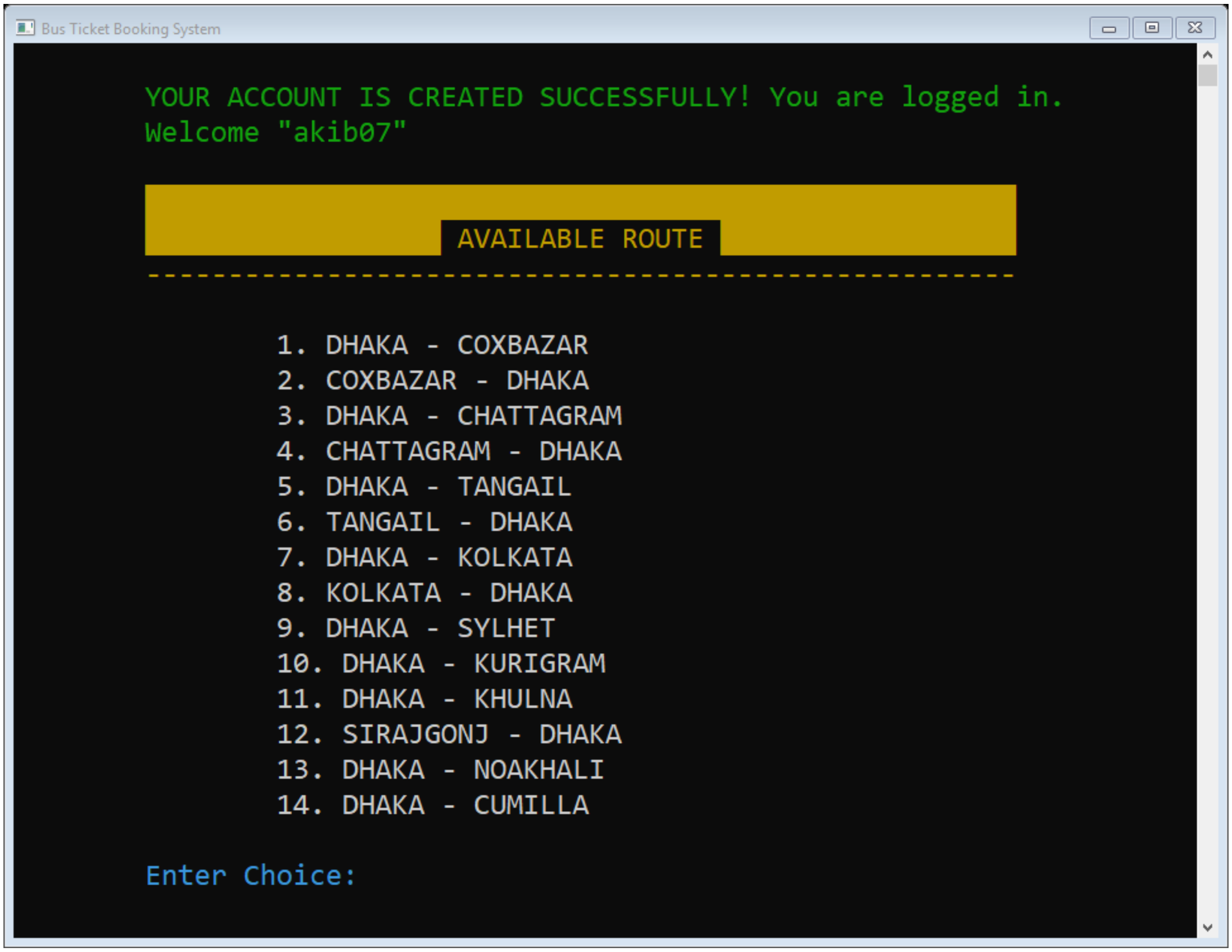


```
DELETE ALL USER BOOKING INFO
-------------------------------------------------------------------

All user booking information including all user booking records will be deleted permanently.
Are you sure?

        1. YES
        2. NO

Enter Choice: 1
All user booking data has been deleted successfully!


PRESS ANY KEY TO EXIT
```

3.10 User Signup



```
SIGN UP
---------------------------------------------

Username: akib
Sorry, this username is already taken. try another!
Username: akib07
Username "akib07" is AVAILABLE
Password: *****
Confirm Password: ****
Password didn't match. Try again.
Password: *****
Confirm Password: *****
Enter your Phone no: 01562895754
```



```
YOUR ACCOUNT IS CREATED SUCCESSFULLY! You are logged in.
Welcome "akib07"

                  AVAILABLE ROUTE
-----------------------------------------------------

        1. DHAKA - COXBAZAR
        2. COXBAZAR - DHAKA
        3. DHAKA - CHATTAGRAM
        4. CHATTAGRAM - DHAKA
        5. DHAKA - TANGAIL
        6. TANGAIL - DHAKA
        7. DHAKA - KOLKATA
        8. KOLKATA - DHAKA
        9. DHAKA - SYLHET
        10. DHAKA - KURIGRAM
        11. DHAKA - KHULNA
        12. SIRAJGONJ - DHAKA
        13. DHAKA - NOAKHALI
        14. DHAKA - CUMILLA

Enter Choice:
```

CHAPTER 4: REFERENCES

Sources I used:

1. https://www.geeksforgeeks.org/
2. http://www.cplusplus.com/
3. https://stackoverflow.com/

CHAPTER 5: CODES

```
#include<stdio.h>
#include<conio.h>
#include<string.h>
#include<stdlib.h>

typedef struct st{
    char name[50];
    char pass[50];
    char phone[50];
}data; //structure to store retrived data from file




int x, t; //declaring variable
int check;
data user[500];
char name[50], pass[50], con_pass[50], phone_no[50], phn[20];
int cnt=0;
FILE *file;
char rout[250][200], bus[250][200], tmp[500], mixed_data[500][250];
char my_rout[250], my_bus[250], ac[3][200]; //0 = non-ac, 1 = ac
int t, rout_cnt, check;


void title(char str[50]){
    printf("\n\t");
    for(int i=1; i<=38+strlen(str); i++){
        printf("\033[0;33m\xdb\033[m");
    }

printf("\n\t\033[0;33m\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xd
b\xdb\xdb\xdb\xdb %s
\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\n\03
3[m", str);
    printf("\t");
    for(int i=1; i<=38+strlen(str); i++){
        printf("\033[0;33m-\033[m");
    }
    printf("\n");
}

void choice(){ //function for taking user choice
    printf("\t\033[0;36mEnter Choice: \033[0m");
    scanf("%d", &check);
}


void clear_data(){ //function for clearing all booked seat information
    system("cls");
    title("CLEAR BOOKING DATA");
    printf("\n\033[0;31m\tYour all booking data will be permanently
deleted.\n\tAre you sure?\n\n\033[0m");
```

```
    printf("\t\t1. YES\n\t\t2. NO\n\n");
    choice();
    if(check==1){
        t=0;
        file=fopen("rout-bus-seat.txt", "r");
        while(fgets(mixed_data[t], 300, file)!= NULL){
            t++;
        }
        fclose(file);
        for(int i=4; i<t; i+=5){
            strcpy(mixed_data[i], "A1 A2 A3 A4 B1 B2 B3 B4 C1 C2 C3 C4 D1 D2
D3 D4 E1 E2 E3 E4 F1 F2 F3 F4 G1 G2 G3 G4 H1 H2 H3 H4 I1 I2 I3 I4\n");
        }
        file=fopen("rout-bus-seat.txt", "w");
        for(int i=0; i<t; i++){
            fprintf(file, "%s", mixed_data[i]);
        }
        fclose(file);
        printf("\033[0;32m\n\tALL BOOK DATA HAS BEEN DELETED
SUCCESSFULLY!\n\033[0m");
    }
    else{
        return;
    }
}


int login_flag=0;

void book(){ //function for booking bus
    system("cls");
    if(login_flag==1){
        printf("\n\t\033[0;32mYOU HAVE SUCCESSFULLY LOGGED IN!\n\033[0m");
    }
    else{
        printf("\n\t\033[0;32mYOUR ACCOUNT IS CREATED SUCCESSFULLY! You are
logged in.\n\033[0m");
    }
    printf("\033[0;32m\tWelcome \"%s\"\n\033[0m", name);
    t=0;
    file=fopen("rout-bus-seat.txt", "r");
    while(fgets(mixed_data[t], 300, file)!= NULL){ //retrive all data from
file
        t++;
    }
    fclose(file);
    rout_cnt=0;
    for(int i=0; i<t; i+=5){ //getting unique rout from all data (stored in
mixed_data[])
        int flag=0;
        strcpy(tmp, mixed_data[i]);
        for(int j=0; j<t/5; j++){
            if(strcmp(tmp, rout[j])==0){ //looking for unique rout (no rout
will print more than 1 time)
                flag=1;
                break;
            }
        }
        if(flag==0){ //if checked rout is not already inserted in the rout
array then push it in the array
            strcpy(rout[rout_cnt], tmp);
            rout_cnt++;
        }
    }
    title("AVAILABLE ROUTE");
    printf("\n");
    for(int i=0; i<rout_cnt; i++){ //print all available rout
        printf("\t\t%d. %s", i+1, strupr(rout[i]));
    }
    printf("\n");
    ta:
    choice();
    if(check>rout_cnt || check==0){
        printf("\033[0;31m\tWrong Choice. Please try again.\n\033[0m");
        goto ta;
    }
    else{
        strcpy(my_rout, rout[check-1]); //collecting selected rout from user
    }

    int bus_cnt=0;
    for(int i=0; i<t; i+=5){ //getting all available bus in that selected
rout
        if(strcmp(my_rout, strupr(mixed_data[i]))==0){
            strcpy(bus[bus_cnt], mixed_data[i+1]); //storing in an array
            bus_cnt++;
        }
    }

    title("SELECT BUS");
    printf("\t\t\033[0;33m Route: %s\033[0m\n", my_rout);
    for(int i=0; i<bus_cnt; i++){ //printing available bus in the rout
        printf("\t\t%d. %s", i+1, bus[i]);
    }
    printf("\n");
    ba:
    choice();
    if(check>bus_cnt || check==0){
        printf("\033[0;31m\tWrong Choice. Please try again.\n\033[0m");
        goto ba;
    }
    else{
        strcpy(my_bus, bus[check-1]); //collecting selected bus from user
    }

    /*printf("\n\t######## SELECT BUS TYPE ########\n");
    printf("\t1. NON-AC\n\t2. AC\n");
    choice();*/

    int price_non_ac, p_cnt=0;
    for(int i=0; i<t; i+=5){ //getting each ticket price for that bus in that
rout
        if(strcmp(mixed_data[i], my_rout)==0 && strcmp(mixed_data[i+1],
my_bus)==0){
```

```
            strcpy(tmp, mixed_data[i+2]);
            tmp[strlen(tmp)]='\0';
            price_non_ac=atoi(tmp); //converting the price in integer
            break;
        }
    }


    for(int i=0; i<t; i+=5){ //getting all seats availability information in
that bus
        if(strcmp(mixed_data[i], my_rout)==0 && strcmp(mixed_data[i+1],
my_bus)==0){
            strcpy(tmp, mixed_data[i+4]);
            break;
        }
    }
    //printf("%s", tmp);
    int total_seat=0, ct=0;
    char individual_seat[50][10];
    for(int i=0; i<strlen(tmp); i+=3){ //breaking them in individual seat to
make change in it
        individual_seat[total_seat][0]=tmp[i];
        individual_seat[total_seat][1]=tmp[i+1];
        individual_seat[total_seat][2]='\0';
        total_seat++;
    }
    total_seat--;
    int flag;
    flag=0;
    for(int i=0; i<total_seat; i++){ //checking if all seats in the bus is
already booked
        if(strcmp(individual_seat[i], "xx")!=0){
            flag=1; //flag=1 means not booked. minimum 1 seat is not booked
            break;
        }
    }
    akib:


    system("cls");
    title("BOOKING INFORMATION");
    printf("\n\tPASSENGER: %s\n", name);
    printf("\tPHONE: %s\n", phn);
    printf("\tROUTE: %s\tBUS: %s", my_rout, my_bus); //printing my
information including my rout, bus and fare of ticket
    printf("\tSEAT COST: %d/-\n\n", price_non_ac);
    for(int i=0; i<total_seat; i+=4){ //seat diagram building with
availability of a seat
        if(strcmp(individual_seat[i], "xx")==0){
            printf("\033[0;31m");
        }
        else{
            printf("\033[0;32m");
        }
        printf("\t\t|%s  \033[0m", individual_seat[i]);

        if(strcmp(individual_seat[i+1], "xx")==0){
            printf("\033[0;31m");
        }
        else{
            printf("\033[0;32m");
        }
        printf("%s     \033[0m", individual_seat[i+1]);

        if(strcmp(individual_seat[i+2], "xx")==0){
            printf("\033[0;31m");
        }
        else{
            printf("\033[0;32m");
        }

        printf("%s  \033[0m", individual_seat[i+2]);

        if(strcmp(individual_seat[i+3], "xx")==0){
            printf("\033[0;31m");
        }
        else{
            printf("\033[0;32m");
        }
        printf("%s|\n\033[0m", individual_seat[i+3]);

        printf("\t\t-------     -------\n");
    }
    if(flag==0){ //if all seats is booked already
        printf("\033[0;31m\tSORRY, NO TICKET AVAILABLE IN THIS
ROUT\n\033[0m");
        return;
    }
    ct++;
    if(ct==3){goto bill;}

    int booked_seat;
    char my_seats[50][10];

    again:
    printf("\tHOW MANY SEATS YOU WANT TO BOOK? ");
    scanf("%d", &booked_seat); //how many ticket i wanna buy
    printf("\tSELECT SEAT (ex- A1 A2 B1): ");

    for(int i=0; i<booked_seat; i++){ //taking seats ID (A1 A2 A3)
        scanf("%s", my_seats[i]);
        strupr(my_seats[i]);
    }
    int taken=0;
    for(int i=0; i<booked_seat; i++){
        int flag2=0;
        for(int j=0; j<=total_seat; j++){ //check if one of the selected
ticket is already booked
            if(strcmp(my_seats[i], individual_seat[j])==0){
                flag2=1; break;
            }
        }
        if(flag2==0){
            printf("\033[0;31m\t%s is already taken. Try again\n\033[0m",
my_seats[i]);
            taken=1;
        }
    }
    if(taken==1){ //if already taken take seat information again.
        goto again;
    }


    for(int i=0; i<booked_seat; i++){ //book selected seat in that bus in
that rout
        for(int j=0; j<=total_seat; j++){
            if(strcmp(my_seats[i], individual_seat[j])==0){
                strcpy(individual_seat[j], "xx"); //and replace it with xx.
so that we can identify it is booked
            }
        }
    }
    int itarate=0;
    for(int i=0; i<=total_seat; i++){ //making a seat information line. so
that we can save it in the file
        tmp[itarate]=individual_seat[i][0];
        tmp[itarate+1]=individual_seat[i][1];
        tmp[itarate+2]=' ';
        itarate+=3;
    }
    tmp[itarate]='\n';

    printf("%s", tmp);
    for(int i=0; i<t; i+=5){ //replace seat information line with the
previous one
        if(strcmp(mixed_data[i], my_rout)==0 && strcmp(mixed_data[i+1],
my_bus)==0){
            strcpy(mixed_data[i+4], tmp);
            break;
        }
    }
    file=fopen("rout-bus-seat.txt", "w"); //write those information in the
file
    for(int i=0; i<t; i++){
        fprintf(file, "%s", mixed_data[i]);
    }
    fclose(file);
    ct++;
    goto akib;

    bill: //generate bill if seat is booked
        printf("\033[0;32m\n\tYOUR BOOKING IS SUCCESSFUL!\033[0m");
        printf("\n\tSeat Booked: %d -> ", booked_seat);
        for(int i=0; i<booked_seat; i++){
            printf("%s ", my_seats[i]);
        }
        printf("\n\tPer Seat Cost: %d/-", price_non_ac);
        printf("\n\tTOTAL PAYABLE: %d/-\n", price_non_ac*booked_seat);

        file=fopen("user-info.txt", "a");
        fprintf(file, "%s\n", name);
        fprintf(file, "%s\n", phn);
        fprintf(file, "%s", my_rout);
        fprintf(file, "%s", my_bus);
        for(int i=0; i<booked_seat; i++){
            fprintf(file, "%s ", my_seats[i]);
        }
        fprintf(file, "\n%d\n", price_non_ac*booked_seat);
        fclose(file);
}

void add_bus(){
    system("cls");
    t=0;
    file=fopen("rout-bus-seat.txt", "r");
    while(fgets(mixed_data[t], 300, file)!= NULL){ //retrive all data from
file
        t++;
    }
    fclose(file);
    rout_cnt=0;
    for(int i=0; i<t; i+=5){ //getting unique rout from all data (stored in
mixed_data[])
        int flag=0;
        strcpy(tmp, mixed_data[i]);
        for(int j=0; j<t/5; j++){
            if(strcmp(tmp, rout[j])==0){ //looking for unique rout (no rout
will print more than 1 time)
                flag=1;
                break;
            }
        }
        if(flag==0){ //if checked rout is not already inserted in the rout
array then push it in the array
            strcpy(rout[rout_cnt], tmp);
            rout_cnt++;
        }
    }

    char newRout[100], newBus[100];
    int seat_fare;
    title("ADD NEW BUS");
    printf("\n\tAlready Available Routs:\n\n");
    for(int i=0; i<rout_cnt; i++){ //print available rout
        printf("\t\t%d. %s", i+1, rout[i]);
    }
    printf("\n\t(Enter 0 if you want to add other rout)\n");
    choice();
    if(check==0){
        printf("\n\tENTER NEW ROUT: ");
        fflush(stdin);
        gets(newRout);
        strupr(newRout);
    }
    else{
        strcpy(newRout, rout[check-1]);
        newRout[strlen(newRout)-1]='\0';
        printf("\n\tADD BUS FOR ROUTE: %s\n", newRout);
    }
    printf("\tENTER BUS NAME: ");
    fflush(stdin);
    gets(newBus);
    printf("\tENTER EACH SEAT FARE: ");
    scanf("%d", &seat_fare);

    file=fopen("rout-bus-seat.txt", "a");
    fprintf(file, "%s\n", newRout);
    fprintf(file, "%s\n", newBus);
    fprintf(file, "%d\n", seat_fare);
    fprintf(file, "#AC_TICKET_PRICE_HERE\n");
    fprintf(file, "A1 A2 A3 A4 B1 B2 B3 B4 C1 C2 C3 C4 D1 D2 D3 D4 E1 E2 E3
E4 F1 F2 F3 F4 G1 G2 G3 G4 H1 H2 H3 H4 I1 I2 I3 I4\n");
    fclose(file);
    printf("\n\t-------------------------------------------------\n");
    printf("\tRout: %s\n\tBus: %s", newRout, newBus);
    printf("\033[0;32m\n\tBUS ADDED SUCCESSFULLY!\n\033[0m");
    printf("\t-------------------------------------------------\n");
}

void delete_bus(){
    system("cls");
    t=0;
    file=fopen("rout-bus-seat.txt", "r");
    while(fgets(mixed_data[t], 300, file)!= NULL){ //retrive all data from
file
        t++;
    }
    fclose(file);
    rout_cnt=0;
    for(int i=0; i<t; i+=5){ //getting unique rout from all data (stored in
mixed_data[])
        int flag=0;
        strcpy(tmp, mixed_data[i]);
        for(int j=0; j<t/5; j++){
            if(strcmp(tmp, rout[j])==0){ //looking for unique rout (no rout
will print more than 1 time)
                flag=1;
                break;
            }
        }
        if(flag==0){ //if checked rout is not already inserted in the rout
array then push it in the array
            strcpy(rout[rout_cnt], tmp);
            rout_cnt++;
        }
    }

    char del_rout[100], del_bus[100];
    title("REMOVE A BUS");
    printf("\n\tAll available Route:\n\n");
    for(int i=0; i<rout_cnt; i++){ //print available rout
        printf("\t\t%d. %s", i+1, rout[i]);
    }
    printf("\n");
    choice();
    strcpy(del_rout, rout[check-1]);

    printf("\033[0;33m\n\tAll available Bus in rout %s\033[0m\n", del_rout);
    int bus_cnt=0;
    for(int i=0; i<t; i+=5){ //getting all available bus in that selected
rout
        if(strcmp(del_rout, strupr(mixed_data[i]))==0){
            strcpy(bus[bus_cnt], mixed_data[i+1]); //storing in an array
            bus_cnt++;
        }
    }
    for(int i=0; i<bus_cnt; i++){ //print available bus in the rout
        printf("\t\t%d. %s", i+1, bus[i]);
    }
    printf("\n");
    choice();
    strcpy(del_bus, bus[check-1]);
    for(int i=0; i<t; i++){
        if(strcmp(mixed_data[i], del_rout)==0 && strcmp(mixed_data[i+1],
del_bus)==0){
            for(int j=i; j<t; j++){ //remove lines regarding that rout, bus
and fare
                strcpy(mixed_data[j], mixed_data[j+5]);
            }
            break;
        }
    }
    file=fopen("rout-bus-seat.txt", "w"); //edit in file
    for(int i=0; i<t; i++){
        fprintf(file, "%s", mixed_data[i]);
    }
    fclose(file);
    printf("\n\t-------------------------------------------------\n");
    printf("\tRoute: %s", del_rout);
    printf("\tBus: %s", del_bus);
    printf("\033[0;32m\tBUS REMOVED SUCCESSFULLY!\n\033[0m");
    printf("\t-------------------------------------------------\n");

}



void retrive_data(){ //function to collect data from user and password file
    file=fopen("user.txt", "r");
    while(fscanf(file, "%s", user[cnt].name)!=EOF){
        cnt++;
    }
    fclose(file);
    file=fopen("password.txt", "r");
    cnt=0;
    while(fscanf(file, "%s", user[cnt].pass)!=EOF){
        cnt++;
    }
    fclose(file);
    file=fopen("phone.txt", "r");
    cnt=0;
    while(fscanf(file, "%s", user[cnt].phone)!=EOF){
        cnt++;
    }
    fclose(file);
}

void signup(){ //function for signing up
    system("cls");// clear screen
    title("SIGN UP");
    take_user:
    printf("\n\tUsername: ");
    //scanf("%s", name);
    fflush(stdin);
    gets(name);
    for(int i=0; i<strlen(name); i++){ //check if user used space in username
        if(name[i]==' '){
            printf("\033[0;31m\tSpace is not allowed. try '.', '-' or '_'
instead! \033[0m");
            goto take_user;
        }
    }
    for(int i=0; i<cnt; i++){ //check if the username is exist using linear
search
        if(strcmp(name, user[i].name)==0){
            printf("\033[0;31m\tSorry, this username is already taken. try
another! \033[0m");
            goto take_user; break;
        }
    }
    printf("\033[0;32m\tUsername \"%s\" is AVAILABLE \n \033[0m", name);
    take_pass:
    printf("\tPassword: ");
    int q=0;
    while(1){ //for printing star
        if(q<0){q=0; continue;}
        pass[q]=getch();
        if(pass[q]=='\r'){
            pass[q]='\0';
            break;
        }
        if(pass[q]==8){
            putch('\b');
            putch(' ');
            q--;
            pass[q]='\0';
            putch('\b');

        }
        else{
            putch('*');
            q++;
        }
    }
    printf("\n\tConfirm Password: ");
    q=0;
    while(1){ //for printing star
        if(q<0){q=0; continue;}
        con_pass[q]=getch();
        if(con_pass[q]=='\r'){
            con_pass[q]='\0';
            break;
        }
        if(con_pass[q]==8){
            putch('\b');
            putch(' ');
            q--;
            con_pass[q]='\0';
            putch('\b');

        }
        else{
            putch('*');
            q++;
        }
    }

    if(strcmp(pass, con_pass)!=0){ //check if both password are matched.
        printf("\033[0;31m \n\tPassword didn't match. Try again.\n\033[0m");
        goto take_pass;
    }
    printf("\n\tEnter your Phone no: ");
    scanf("%s", phone_no);
    strcpy(phn, phone_no);

    //now assign all valid information in file and get registered
    file=fopen("user.txt", "a");
    fprintf(file, "%s\n", name);
    fclose(file);
    file=fopen("password.txt", "a");
    fprintf(file, "%s\n", pass);
    fclose(file);
    file=fopen("phone.txt", "a");
    fprintf(file, "%s\n", phone_no);
    fclose(file);
    system("cls");
    printf("\033[0;32m\n\tAccount Created Successfully. YOU ARE LOGGED IN!
\033[0m"); //logged in msg
    printf("\033[0;32m \n\tWelcome \"%s\"\n \033[0m", name); //logged in msg

    book();
}

void login(){ //function for login to the system
    system("cls");// clear screen
    title("USER LOGIN");
    log:
    printf("\n\tEnter Username: ");
    //scanf("%s", name);
    fflush(stdin);
    gets(name);
    for(int i=0; i<strlen(name); i++){ //check if user used space in username
        if(name[i]==' '){
            printf("\033[0;31m\tInvalid username. Please try again!
\033[0m");
```

```
            goto log;
        }
    }
    printf("\tEnter Password: ");
    int q=0;

    while(1){ //for printing star
        if(q<0){q=0; continue;}
        pass[q]=getch();
        if(pass[q]=='\r'){
            pass[q]='\0';
            break;
        }
        if(pass[q]==8){
            putch('\b');
            putch(' ');
            q--;
            pass[q]='\0';
            putch('\b');

        }
        else{
            putch('*');
            q++;
        }
    }



    int flag=0;
    for(int i=0; i<cnt; i++){
        if(strcmp(name, user[i].name)==0 && strcmp(pass, user[i].pass)==0){
            //textcolor();
            system("cls");
            login_flag=1;
            strcpy(phn, user[i].phone);
            book();

            flag=1; break;
        }
    }
    if(flag==0){ //username or password didn't match
        printf("\033[0;31m \n\tSORRY, USERNAME or PASSWORD IS INCORRECT.\n
\033[0m\t\t1. TRY AGAIN\n\t\t2. SIGN UP\n");
        choice();
        if(check==1){
            login();
        }
        else{
            signup();
        }
    }
}

void del_user_data(){
    system("cls");
    title("DELETE ALL USER BOOKING INFO");
    printf("\n\t\033[0;31mAll user booking information including all user
booking records will be deleted permanently.\n\tAre you sure?\n\033[0m");
    printf("\n\t\t1. YES\n\t\t2. NO\n\n");
    choice();
    if(check==1){
        file=fopen("user-info.txt", "w");
        fprintf(file, "");
        fclose(file);
        printf("\t\033[0;32mAll user booking data has been deleted
successfully!\n\033[0m");
    }
    else{
        return;
    }
}

void DisplayUserData(){
    system("cls");
    char userdata[500][100], rem_user[50];
    int i=0;
    file=fopen("user-info.txt", "r");
    while(fgets(userdata[i], 200, file)!=NULL){
        i++;
    }
    fclose(file);
    title("USER INFORMATION of Booking");
    puts("");
    for(int k=0; k<i; k+=6){
        printf("\t\033[0;33mPASSERGER:\033[0m\033[0;32m %s\033[0m",
userdata[k]);
        printf("\t\033[0;33mPHONE:\033[0m %s", userdata[k+1]);
        printf("\t\033[0;33mROUTE:\033[0m %s", userdata[k+2]);
        printf("\t\033[0;33mBUS:\033[0m %s", userdata[k+3]);
        printf("\t\033[0;33mSEAT BOOKED:\033[0m %s", userdata[k+4]);
        printf("\t\033[0;33mTOTAL PAYABLE:\033[0m %s\n", userdata[k+5]);
    }
    int flag=0;
    agn:
    printf("\tENTER USERNAME TO REMOVE USER INFO: ");
    scanf("%s", rem_user);
    rem_user[strlen(rem_user)]='\n';
    for(int k=0; k<i; k+=6){
        if(strcmp(userdata[k], rem_user)==0){
            for(int j=k; j<i; j++){
                strcpy(userdata[j], userdata[j+6]);
            }
            flag=1;
            break;
        }
    }
    if(flag==1){
        i-=6;
        file=fopen("user-info.txt", "w");
        for(int k=0; k<i; k++){
            fprintf(file, "%s", userdata[k]);
        }
        fclose(file);
        system("cls");
        title("USER INFORMATION of Booking");
        puts("");
        for(int k=0; k<i; k+=6){
            printf("\t\033[0;33mPASSERGER:\033[0m\033[0;32m %s\033[0m",
userdata[k]);
            printf("\t\033[0;33mPHONE:\033[0m %s", userdata[k+1]);
            printf("\t\033[0;33mROUTE:\033[0m %s", userdata[k+2]);
            printf("\t\033[0;33mBUS:\033[0m %s", userdata[k+3]);
            printf("\t\033[0;33mSEAT BOOKED:\033[0m %s", userdata[k+4]);
            printf("\t\033[0;33mTOTAL PAYABLE:\033[0m %s\n", userdata[k+5]);
        }

        printf("\t\033[0;32mUsername is removed successfully!\033[0m\n");
        printf("\n\t\t1. REMOVE MORE\n\t\t2. EXIT\n\n");
        choice();
        if(check==1){
            DisplayUserData();
        }
        else{
            return;
        }
    }
    else{
        printf("\t\033[0;31mThis username does not exist!\033[0m\n");
        goto agn;
    }
}


void manager_login(){
    system("cls");
    title("MANAGER LOGIN");
    wp:
    printf("\n\tUsername: ");
    scanf("%s", name);
    printf("\tPassword: ");
    //scanf("%s", pass);
    int q=0;
    while(1){ //for printing star
        if(q<0){q=0; continue;}
        pass[q]=getch();
        if(pass[q]=='\r'){
            pass[q]='\0';
            break;
        }
        if(pass[q]==8){
            putch('\b');
            putch(' ');
            q--;
            pass[q]='\0';
            putch('\b');

        }
        else{
            putch('*');
            q++;
        }
    }

    if(strcmp(name, "admin")==0 && strcmp(pass, "0000")==0){
        system("cls");
        printf("\033[0;32m\n\tYou have successfully logged in as MANAGER
\n\033[0m");
        title("MANAGER MENU");
        aaa:
        printf("\n\t\t1. OPEN USER BOOKING RECORDS\n\t\t2. ADD A BUS\n\t\t3.
REMOVE A BUS\n\t\t4. DELETE ALL BOOKED SEAT DATA\n\t\t5. DELETE ALL USER
BOOKING DATA\n\n");
        choice();
        if(check==1){
            DisplayUserData();
        }
        else if(check==2){
            add_bus();
        }
        else if(check==3){
            delete_bus();
        }
        else if(check==4){
            clear_data();
        }
        else if(check==5){
            del_user_data();
        }
        else{
            system("cls");
            title("MANAGER MENU");
            printf("\n\033[0;31m\tSorry, incorrect selection. Try
again.\033[0m\n");
            goto aaa;
        }
    }
    else{
        system("cls");
        title("MANAGER LOGIN");
        printf("\033[0;31m\n\tSorry, username or password is wrong. Try
again. \n\033[0m");

        goto wp;
    }
}

void log_menu(){
    system("cls");
    title("LOGIN MENU");
    aaa:
    printf("\n\tSelect Login Method:\n\n");
    printf("\t\t1. LOGIN AS USER\n\t\t2. SIGN UP AS USER\n\t\t3. LOGIN AS
MANAGER\n\n");
    choice();
    if(check==1){
        login();
    }
    else if(check==2){
        signup();
    }
    else if(check==3){
        manager_login();
    }
    else{
        system("cls");
        title("LOGIN MENU");
        printf("\n\033[0;31m\tSorry, incorrect selection. Try
again.\033[0m\n");
        goto aaa;
    }
}
void start(){
    system("cls");
    printf("\033[0;33m");

printf("\n\t\t\t\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\
xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\x
db\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xd
b\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\n");

printf("\t\t\t\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xd
b\xdb\xdb\xdb\xdb BUS TICKET BOOKING SYSTEM
\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\
xdb\xdb\n");

printf("\t\t\t\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xd
b\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb
\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\
xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\xdb\n");
    printf("\033[0m\n\n");
    printf("\033[0;36m\tPROGRAMMER's INFORMATON:\033[0m\n\t------------------
------------\n");
    printf("\t\033[0;33mName:\033[0m Mir Anupam Hossain Akib\n");
    printf("\t\033[0;33mID:\033[0m 191-35-2640\n");
    printf("\t\033[0;33mSection:\033[0m B\n");
    printf("\t\033[0;33mEmail:\033[0m anupam35-2640@diu.edu.bd\n");
    printf("\t\033[0;33mDepartment of Software Engineering, \n\tDaffodil
International University\033[0m\n");

    printf("\033[0;36m\n\n\tPROJECT's INFORMATON:\033[0m\n\t-----------------
-------------\n");
    printf("\t\033[0;33mProject:\033[0m Bus Ticket Booking System\n");
    printf("\t\033[0;33mCourse Title:\033[0m Software Development
Project\n");
    printf("\t\033[0;33mCourse Code:\033[0m SE133\n");
    printf("\t\033[0;33mCourse Teacher:\033[0m DR. MD. ASRAF ALI\n");
    printf("\t\033[0;33mDate:\033[0m 8th December, 2019\n");
    printf("\t\033[0;33mDepartment of Software Engineering, \n\tDaffodil
International University\033[0m\n");

    printf("\n\n\t\033[0;35mPress any key to continue\033[0m");
    if(getch()){
        log_menu();
    }
}

int main(){
    retrive_data();
    //add_bus();
    start();
    printf("\n\n\t\033[0;35mPRESS ANY KEY TO EXIT\033[0m\n");
    getch();
    return 0;
}
```

THANK YOU