

```
#include <stdio.h>

#include <string.h>

#include <stdlib.h>


typedef struct {

    int seatNumber;

    int isBooked;

    char bookedBy[50];

} Seat;


Seat seats[20]; // Array to store seat availability (20 seats)

int totalSeats = 20;


// Global variable to track login state

int loggedIn = 0; // 0 = Not logged in, 1 = Logged in

char currentUser[50]; // To store the currently logged-in user's username


// Function Prototypes

void registration();

int login();

void viewSeats();

void bookTicket();

void payment();

void displayBookingDetails();

void exitProgram();


int main() {

    int choice;


    printf("Welcome to the Bus Ticket Reservation System!\n");


    while (1) {
```

```
printf("\n1. Register\n2. Login\n3. View Available Seats\n4. Book Ticket\n5. Payment\n6. Display Booking  
Details\n7. Exit\n");
```

```
printf("Choose an option: ");
```

```
scanf("%d", &choice);
```

```
switch (choice) {
```

```
    case 1:
```

```
        registration();
```

```
        break;
```

```
    case 2:
```

```
        if (login()) {
```

```
            loggedIn = 1; // Set login status to true
```

```
            printf("Login successful! Welcome, %s\n", currentUser);
```

```
        } else {
```

```
            printf("Invalid username or password.\n");
```

```
        }
```

```
        break;
```

```
    case 3:
```

```
        viewSeats();
```

```
        break;
```

```
    case 4:
```

```
        if (!loggedIn) {
```

```
            printf("You must log in first to book a ticket.\n");
```

```
        } else {
```

```
            bookTicket();
```

```
        }
```

```
        break;
```

```
    case 5:
```

```
        if (!loggedIn) {
```

```
            printf("You must log in first to make a payment.\n");
```

```
        } else {
```

```
            payment();
```

```

    }
    break;
case 6:
    if (!loggedIn) {
        printf("You must log in first to view booking details.\n");
    } else {
        displayBookingDetails();
    }
    break;
case 7:
    exitProgram();
    return 0;
default:
    printf("Invalid option. Try again.\n");
}
}
}

```

// Function Definitions

```

void registration() {
    FILE *fp;
    char username[50], password[50];

    printf("Enter username: ");
    scanf("%s", username);
    printf("Enter password: ");
    scanf("%s", password);

    fp = fopen("users.txt", "a");
    if (fp == NULL) {
        printf("Error opening file.\n");
    }
}

```

```

        return;
    }

    fprintf(fp, "%s %s\n", username, password);
    fclose(fp);

    printf("Registration successful!\n");
}

int login() {
    FILE *fp;
    char username[50], password[50], fileUser[50], filePass[50];

    printf("Enter username: ");
    scanf("%s", username);
    printf("Enter password: ");
    scanf("%s", password);

    fp = fopen("users.txt", "r");
    if (fp == NULL) {
        printf("No registered users found.\n");
        return 0;
    }

    while (fscanf(fp, "%s %s", fileUser, filePass) != EOF) {
        if (strcmp(username, fileUser) == 0 && strcmp(password, filePass) == 0) {
            fclose(fp);
            strcpy(currentUser, username); // Store the logged-in user's name
            return 1;
        }
    }
}

```

```
fclose(fp);  
return 0;  
}
```

```
void viewSeats() {  
    printf("Available seats:\n");  
    for (int i = 1; i <= totalSeats; i++) {  
        if (!seats[i - 1].isBooked) {  
            printf("Seat %d is available\n", i);  
        } else {  
            printf("Seat %d is booked by %s\n", i, seats[i - 1].bookedBy);  
        }  
    }  
}
```

```
void bookTicket() {  
    int seatNumber;  
  
    printf("Enter seat number to book (1-%d): ", totalSeats);  
    scanf("%d", &seatNumber);  
  
    if (seatNumber < 1 || seatNumber > totalSeats) {  
        printf("Invalid seat number.\n");  
        return;  
    }  
  
    if (seats[seatNumber - 1].isBooked) {  
        printf("Seat is already booked.\n");  
    } else {  
        seats[seatNumber - 1].isBooked = 1;  
        strcpy(seats[seatNumber - 1].bookedBy, currentUser);  
        printf("Seat %d booked successfully by %s!\n", seatNumber, currentUser);  
    }  
}
```

```
}
```

```
void payment() {  
    printf("Processing payment...\n");  
    printf("Payment successful!\n");  
}
```

```
void displayBookingDetails() {  
    printf("Booking details for %s:\n", currentUser);  
  
    int found = 0;  
    for (int i = 0; i < totalSeats; i++) {  
        if (seats[i].isBooked && strcmp(seats[i].bookedBy, currentUser) == 0) {  
            printf("Seat %d\n", i + 1);  
            found = 1;  
        }  
    }  
}
```

```
if (!found) {  
    printf("No bookings found.\n");  
}  
}
```

```
void exitProgram() {  
    printf("Thank you for using the Bus Ticket Reservation System. Goodbye!\n");  
}
```