

# CAB BOOKING SYSTEM



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

// Function to generate a 4-digit OTP
int generateOTP() {
    srand(time(NULL)); // Seed for random number generation
    return 1000 + rand() % 9000; // Generates a random 4-digit number
}

struct CabBookingSystem {
    int choice;
    struct cabs {
        char cabs[5][10];
        char drivernames[5][20];
        char platesno[5][20];
    };
};
```

```

        char price[5][10];
        int booked[5];
    } ob;
};

int main() {
    // Users
    char st[3][50] = {"rohit sharma", "virat kohli", "hardik pandya"};
    char p[3][20] = {"1234", "5678", "9101"};
    char user[50], pass[20];
    int i, loggedIn = 0, loggedInUserIndex = -1;

    // User Login
    printf("\n\n\t\t\t\t\t=====
WELCOME TO CAB BOOKING SYSTEM
=====\\n");

    printf("\t\t\t\t\t----- PLEASE LOG-IN TO CONTINUE -----
-----\\n");

    printf("\t\t\t\t\t=====
=====\\n\\n");

    printf("\t\t\t\t\tEnter user ID: ");
    fgets(user, sizeof(user), stdin);
    user[strcspn(user, "\\n")] = 0; // Remove newline character

    printf("\t\t\t\t\tEnter password: ");
    fgets(pass, sizeof(pass), stdin);

```

```
pass[strcspn(pass, "\n")] = 0; // Remove newline character
```

```
for (i = 0; i < 3; i++) {  
    if (strcmp(st[i], user) == 0 && strcmp(p[i], pass) == 0) {  
        printf("\n\n\t\t\tLogin successfully...\n\n\n");  
        loggedIn = 1;  
        loggedInUserIndex = i;  
        break;  
    }  
}
```

```
if (!loggedIn) {  
    printf("\n\n\t\t\tInvalid Account....\n\n\n");  
    return 0;  
}
```

```
// Initialize Cab Data
```

```
struct CabBookingSystem cabSystem;  
strcpy(cabSystem.ob.cabs[0], "sedan");  
strcpy(cabSystem.ob.cabs[1], "minicab");  
strcpy(cabSystem.ob.cabs[2], "premium");  
strcpy(cabSystem.ob.cabs[3], "suv");  
strcpy(cabSystem.ob.cabs[4], "luxury");
```

```
strcpy(cabSystem.ob.drivernames[0], "john doe");  
strcpy(cabSystem.ob.drivernames[1], "kane william");
```

```
strcpy(cabSystem.ob.drivernames[2], "glen phillips");
strcpy(cabSystem.ob.drivernames[3], "mitchell santner");
strcpy(cabSystem.ob.drivernames[4], "alex carry");
```

```
strcpy(cabSystem.ob.platesno[0], "AB123CD");
strcpy(cabSystem.ob.platesno[1], "XY456ZT");
strcpy(cabSystem.ob.platesno[2], "LM789OP");
strcpy(cabSystem.ob.platesno[3], "QR1012ST");
strcpy(cabSystem.ob.platesno[4], "UV1314WX");
```

```
strcpy(cabSystem.ob.price[0], "$100");
strcpy(cabSystem.ob.price[1], "$300");
strcpy(cabSystem.ob.price[2], "$500");
strcpy(cabSystem.ob.price[3], "$150");
strcpy(cabSystem.ob.price[4], "$200");
```

```
for (i = 0; i < 5; i++) {
    cabSystem.ob.booked[i] = 0;
}
```

```
// Cab Booking System Menu
```

```
while (1) {
    printf("\n\n\n\t\t\t\t\t----- WELCOME TO THE CAB
BOOKING SYSTEM ----- \n");
    printf("\t\t\t\t\tPRESS 1: VIEW AVAILABLE CABS\n");
    printf("\t\t\t\t\tPRESS 2: BOOK A CAB\n");
    printf("\t\t\t\t\tPRESS 3: CANCEL A CAB\n");
```

```
printf("\t\t\t\t PRESS 4: EXIT\n\n");

printf("\t\t\t\t Please select an option (1-4): ");

scanf("%d", &cabSystem.choice);

getchar(); // Clear input buffer


switch (cabSystem.choice) {

    case 1:

        // Display available cabs

        printf("\n\n\t\t\t\t ===== Cab Details  
===== \n");

        printf("\t\t\t\t CABS      | DRIVER NAMES      | PLATE NO.   | PRICE  
| STATUS    | \n");

        printf("\t\t\t\t =====  
===== \n");

        for (i = 0; i < 5; i++) {

            printf("\t\t\t\t %-10s | %-20s | %-12s | %-8s | %-10s | \n",

                cabSystem.ob.cabs[i], cabSystem.ob.drivernames[i],

                cabSystem.ob.platesno[i], cabSystem.ob.price[i],

                cabSystem.ob.booked[i] ? "Booked" : "Available");

        }


        printf("\n\n\t\t\t\t Press any key to go back to the menu...");

        getchar(); // Wait for user input to go back

        break;


    case 2:
```

```

        printf("\t\t\t\t\tYou need to log in to book a cab.\n");
        continue;
    }

    // Enter Personal Details
    char name[50], phone[20], address[100], destination[100];

    printf("\n\t\t\t\t\t===== Please Fill in the Personal
Details =====\n");

    printf("\t\t\t\t\tEnter your full name: ");
    fgets(name, sizeof(name), stdin);
    name[strcspn(name, "\n")] = 0;

    if (strcasecmp(st[loggedInUserIndex], name) != 0) {
        printf("\t\t\t\t\tYou can only book a cab under your own name.\n");
        continue;
    }

    printf("\t\t\t\t\tEnter your phone number: ");
    fgets(phone, sizeof(phone), stdin);
    phone[strcspn(phone, "\n")] = 0;

    printf("\t\t\t\t\tEnter your current address: ");
    fgets(address, sizeof(address), stdin);
    address[strcspn(address, "\n")] = 0;

    printf("\t\t\t\t\tEnter your destination: ");

```



```

fgets(destination, sizeof(destination), stdin);
destination[strcspn(destination, "\n")] = 0;

// Select Payment Mode

printf("\n\t\t\t\t\t===== Please Select Payment Mode
=====\\n");

printf("\t\t\t\t\tPRESS 1: Cash\\n");
printf("\t\t\t\t\tPRESS 2: Card\\n");
printf("\t\t\t\t\tPRESS 3: UPI\\n");
printf("\t\t\t\t\tPlease select a payment mode (1-3): ");

int paymentMode;

scanf("%d", &paymentMode);

getchar(); // Clear input buffer

char paymentModeStr[20];

switch (paymentMode) {
    case 1:
        strcpy(paymentModeStr, "Cash");
        break;
    case 2:
        strcpy(paymentModeStr, "Card");
        break;
    case 3:
        strcpy(paymentModeStr, "UPI");
        break;
    default:
        printf("\t\t\t\t\tInvalid payment mode.\\n");

```

```

        continue;
    }

    // Generate OTP for Booking

printf("\t\t\t\t\t=====
=====\\n");

    int otp = generateOTP();
    printf("\t\t\t\t\tYour OTP for booking confirmation is: %d\\n", otp);
    printf("\t\t\t\t\tEnter the OTP to confirm booking: ");
    int userOTP;
    scanf("%d", &userOTP);

    if (userOTP != otp) {
        printf("\t\t\t\t\tIncorrect OTP! Booking failed.\\n");
        continue;
    }

    // Cab Selection

printf("\t\t\t\t\t=====
=====\\n");

    printf("\t\t\t\t\tEnter the cab number (1-5) to book: ");
    int cabNo;
    scanf("%d", &cabNo);
    cabNo--;

```

```

        if (cabNo >= 0 && cabNo < 5 && cabSystem.ob.booked[cabNo] == 0) {
            cabSystem.ob.booked[cabNo] = 1;

            // Generate Bill

            printf("\n\t\t\t\t\t===== Your Bill
            =====\n");

            printf("\t\t\t\t\tName: %-20s\n", st[loggedInUserIndex]);
            printf("\t\t\t\t\tCab Type: %-10s\n", cabSystem.ob.cabs[cabNo]);
            printf("\t\t\t\t\tDriver Name: %-15s\n",
cabSystem.ob.drivernames[cabNo]);
            printf("\t\t\t\t\tPlate No.: %-10s\n", cabSystem.ob.platesno[cabNo]);
            printf("\t\t\t\t\tPrice: %-10s\n", cabSystem.ob.price[cabNo]);
            printf("\t\t\t\t\tPayment Mode: %-10s\n", paymentModeStr);
            printf("\t\t\t\t\tStatus: Booked\n");

            printf("\t\t\t\t\t=====
            =====\n");

            // Generate Final Bill OTP

            int billOTP = generateOTP();

            printf("\n\t\t\t\t\tYour final bill OTP is: %d\n", billOTP);
            printf("\t\t\t\t\tThank you for booking with us! Have a safe
journey.\n");
        } else {
            printf("\t\t\t\t\tInvalid cab number or already booked.\n");
        }

        printf("\n\t\t\t\t\tPress any key to go back to the menu...");

```

```

    getchar(); // Wait for user input to go back
    break;

case 3:
    // Cancel a cab booking
    printf("\t\t\tEnter the cab number (1-5) to cancel booking: ");
    int cancelCabNo;
    scanf("%d", &cancelCabNo);
    cancelCabNo--;

    if (cancelCabNo >= 0 && cancelCabNo < 5 &&
cabSystem.ob.booked[cancelCabNo] == 1) {
        cabSystem.ob.booked[cancelCabNo] = 0;
        printf("\t\t\tBooking for %s has been cancelled.\n",
cabSystem.ob.cabs[cancelCabNo]);
    } else {
        printf("\t\t\tInvalid cab number or no booking found.\n");
    }

    printf("\n\t\t\tPress any key to go back to the menu...");
    getchar(); // Wait for user input to go back
    break;

case 4:
    printf("\t\t\tExiting... Thank you for visiting!\n");
    return 0;

```

```

        default:

            printf("\t\t\tInvalid choice. Please try again.\n");

        }

    }

return 0;

}

```

**Enter Login ID :-**

The screenshot shows the Visual Studio Code interface with a C++ project named 'cab.c'. The Explorer pane shows the project structure, and the Terminal pane shows the output of the program. The program prompts the user to enter a user ID and password, and then displays a menu of options.

```

Warning: PowerShell detected that you might be using a screen reader and has disabled PSReadLine for compatibility purposes. If you want to re-enable it, run 'Import-Module PSReadLine'.

PS C:\Users\Sanja\OneDrive\Desktop\cpp> cd "c:\Users\Sanja\OneDrive\Desktop\cpp\Projects\" ; if ($?) { gcc cab.c -o cab } ; if ($?) { .\cab }

===== WELCOME TO CAB BOOKING SYSTEM =====
----- PLEASE LOG-IN TO CONTINUE -----
=====

Enter user ID: rohit sharma
Enter password: 1234

Login successfully...

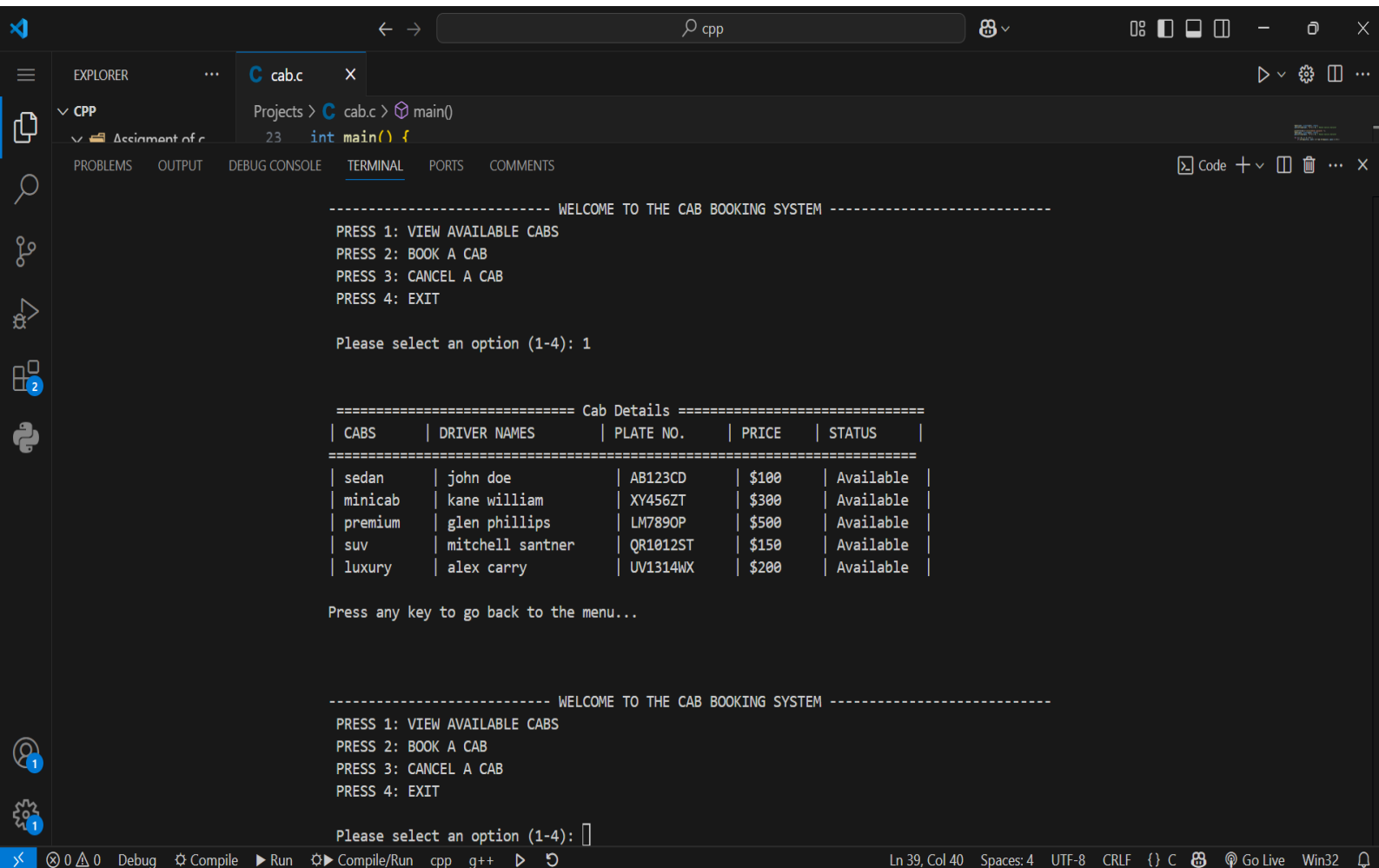
----- WELCOME TO THE CAB BOOKING SYSTEM -----
PRESS 1: VIEW AVAILABLE CABS
PRESS 2: BOOK A CAB
PRESS 3: CANCEL A CAB
PRESS 4: EXIT

Please select an option (1-4): 

```



## PRESS 1: VIEW AVAILABLE CABS :-



```
----- WELCOME TO THE CAB BOOKING SYSTEM -----
PRESS 1: VIEW AVAILABLE CABS
PRESS 2: BOOK A CAB
PRESS 3: CANCEL A CAB
PRESS 4: EXIT

Please select an option (1-4): 1

===== Cab Details =====
| CABS      | DRIVER NAMES      | PLATE NO.  | PRICE  | STATUS  |
|-----|-----|-----|-----|-----|
| sedan    | john doe          | AB123CD    | $100   | Available |
| minicab  | kane william      | XY456ZT    | $300   | Available |
| premium  | glen phillips     | LM7890P    | $500   | Available |
| suv      | mitchell santner  | QR1012ST   | $150   | Available |
| luxury   | alex carry        | UV1314WX   | $200   | Available |

Press any key to go back to the menu...

----- WELCOME TO THE CAB BOOKING SYSTEM -----
PRESS 1: VIEW AVAILABLE CABS
PRESS 2: BOOK A CAB
PRESS 3: CANCEL A CAB
PRESS 4: EXIT

Please select an option (1-4):
```

**PRESS 2: BOOK A CAB :-**

```
Projects > C cab.c > main()
23 int main() {

| sedan | john doe | AB123CD | $100 | Available |
| minicab | kane william | XY456ZT | $300 | Available |
| premium | glen phillips | LM789OP | $500 | Available |
| suv | mitchell santner | QR1012ST | $150 | Available |
| luxury | alex carry | UV1314WX | $200 | Available |

Press any key to go back to the menu...

----- WELCOME TO THE CAB BOOKING SYSTEM -----
PRESS 1: VIEW AVAILABLE CABS
PRESS 2: BOOK A CAB
PRESS 3: CANCEL A CAB
PRESS 4: EXIT

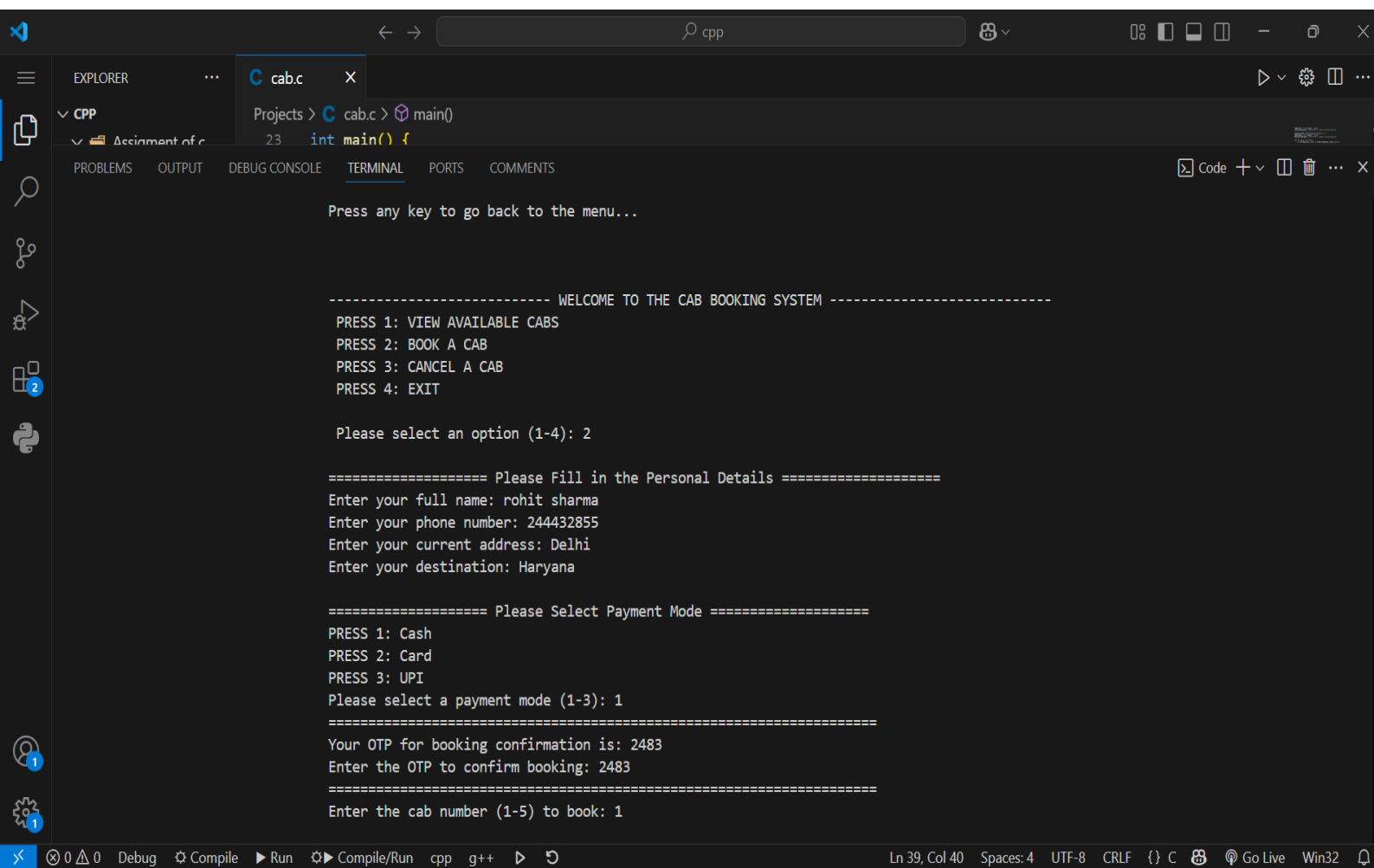
Please select an option (1-4): 2

===== Please Fill in the Personal Details =====
Enter your full name: rohit sharma
Enter your phone number: 244432855
Enter your current address: Delhi
Enter your destination: Haryana

===== Please Select Payment Mode =====
PRESS 1: Cash
PRESS 2: Card
PRESS 3: UPI
Please select a payment mode (1-3):
```



## Select Payment Mode :-



```
Projects > cab.c > main()
23 int main() {

Press any key to go back to the menu...

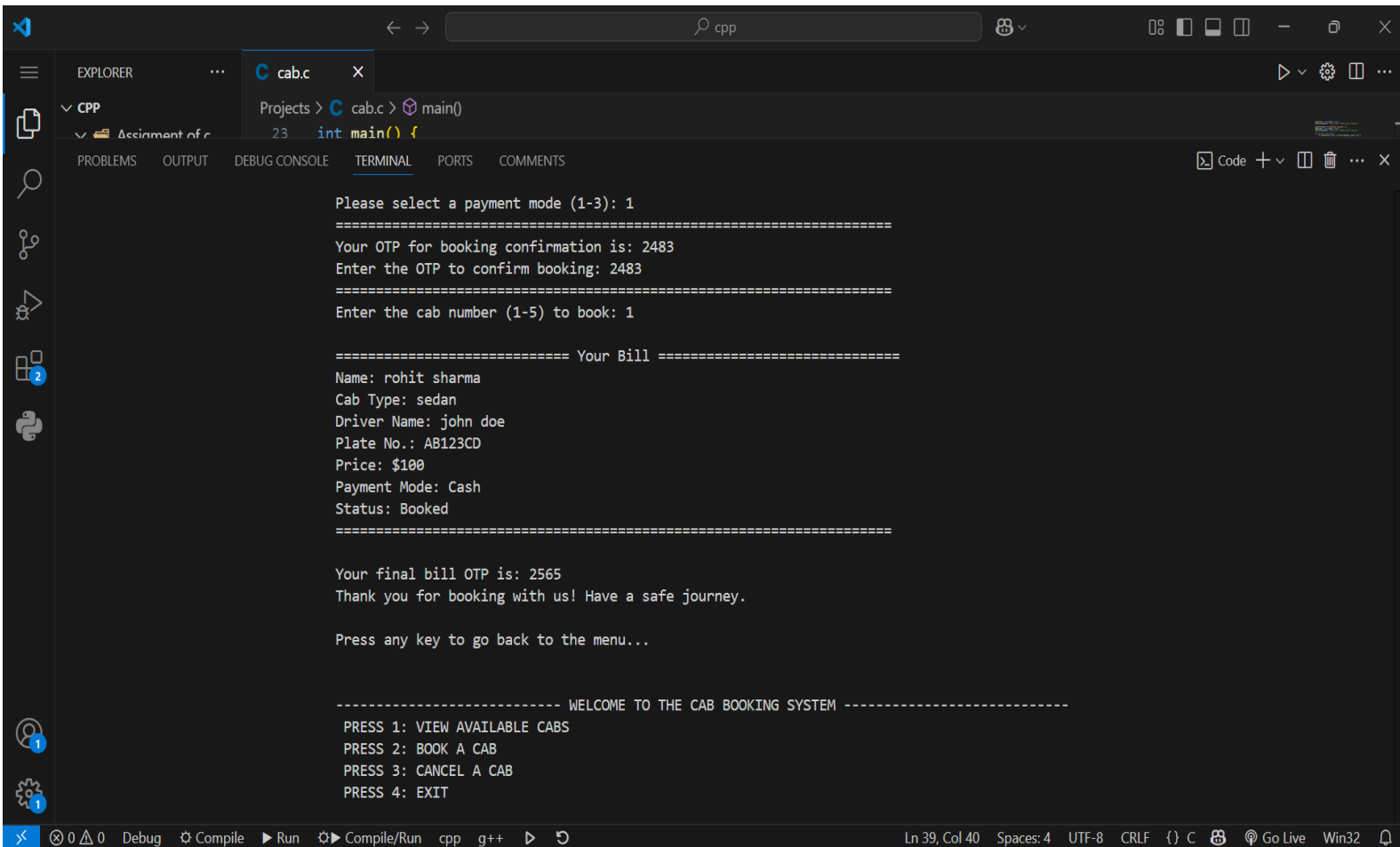
----- WELCOME TO THE CAB BOOKING SYSTEM -----
PRESS 1: VIEW AVAILABLE CABS
PRESS 2: BOOK A CAB
PRESS 3: CANCEL A CAB
PRESS 4: EXIT

Please select an option (1-4): 2

===== Please Fill in the Personal Details =====
Enter your full name: rohit sharma
Enter your phone number: 244432855
Enter your current address: Delhi
Enter your destination: Haryana

===== Please Select Payment Mode =====
PRESS 1: Cash
PRESS 2: Card
PRESS 3: UPI
Please select a payment mode (1-3): 1
=====
Your OTP for booking confirmation is: 2483
Enter the OTP to confirm booking: 2483
=====
Enter the cab number (1-5) to book: 1
```

## Your Bill :-



```
Projects > cab.c > main()
23 int main() {

    Please select a payment mode (1-3): 1
    =====
    Your OTP for booking confirmation is: 2483
    Enter the OTP to confirm booking: 2483
    =====
    Enter the cab number (1-5) to book: 1

    ===== Your Bill =====
    Name: rohit sharma
    Cab Type: sedan
    Driver Name: john doe
    Plate No.: AB123CD
    Price: $100
    Payment Mode: Cash
    Status: Booked
    =====

    Your final bill OTP is: 2565
    Thank you for booking with us! Have a safe journey.

    Press any key to go back to the menu...

    ----- WELCOME TO THE CAB BOOKING SYSTEM -----
    PRESS 1: VIEW AVAILABLE CABS
    PRESS 2: BOOK A CAB
    PRESS 3: CANCEL A CAB
    PRESS 4: EXIT
```

**PRESS 3: CANCEL A CAB :-**

```

Status: Booked
=====

Your final bill OTP is: 2565
Thank you for booking with us! Have a safe journey.

Press any key to go back to the menu...

----- WELCOME TO THE CAB BOOKING SYSTEM -----
PRESS 1: VIEW AVAILABLE CABS
PRESS 2: BOOK A CAB
PRESS 3: CANCEL A CAB
PRESS 4: EXIT

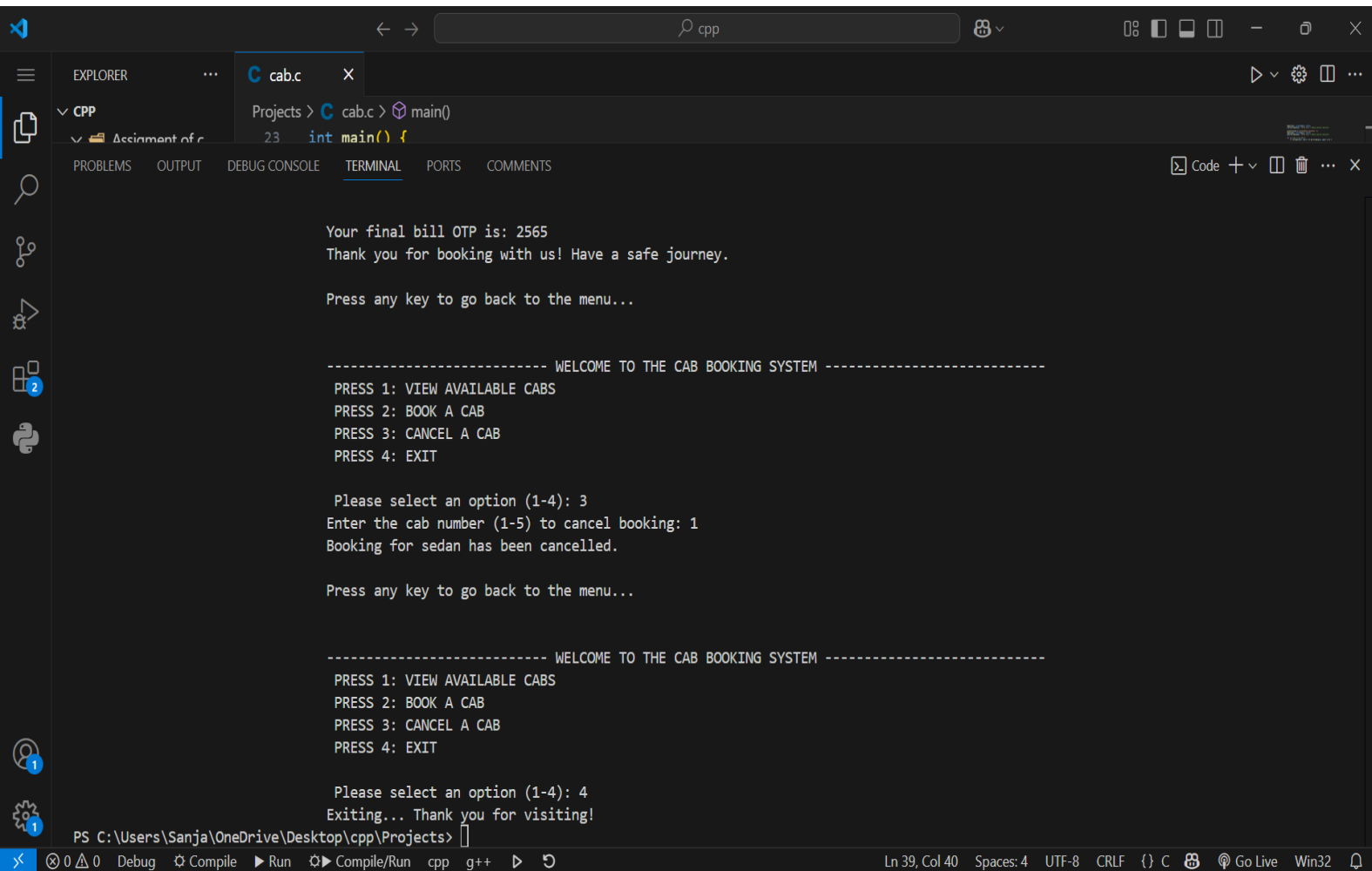
Please select an option (1-4): 3
Enter the cab number (1-5) to cancel booking: 1
Booking for sedan has been cancelled.

Press any key to go back to the menu...

----- WELCOME TO THE CAB BOOKING SYSTEM -----
PRESS 1: VIEW AVAILABLE CABS
PRESS 2: BOOK A CAB
PRESS 3: CANCEL A CAB
PRESS 4: EXIT

Please select an option (1-4): 
  
```

**PRESS 4: EXIT :-**



```

Your final bill OTP is: 2565
Thank you for booking with us! Have a safe journey.

Press any key to go back to the menu...

----- WELCOME TO THE CAB BOOKING SYSTEM -----
PRESS 1: VIEW AVAILABLE CABS
PRESS 2: BOOK A CAB
PRESS 3: CANCEL A CAB
PRESS 4: EXIT

Please select an option (1-4): 3
Enter the cab number (1-5) to cancel booking: 1
Booking for sedan has been cancelled.

Press any key to go back to the menu...

----- WELCOME TO THE CAB BOOKING SYSTEM -----
PRESS 1: VIEW AVAILABLE CABS
PRESS 2: BOOK A CAB
PRESS 3: CANCEL A CAB
PRESS 4: EXIT

Please select an option (1-4): 4
Exiting... Thank you for visiting!
PS C:\Users\Sanja\OneDrive\Desktop\cpp\Projects>
```

**Thank You !!**

