Project title:

Hotel Management System

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Submitted To

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ABSTRACT

This hotel management system is developed for hotels those are using a manual system to handle hotel processes. There are three main users in hotel management system, administrator, Manager and Receptionist. Administrator can maintain daily updates in the hotel records. This system will automate the major operations of the hotel. Administrator can access to all system functionalities without any restrictions. Administrator is must be an authorized user. He can further change the password. There is the facility for password recovery, logout etc. Manager can access to all system functionalities with limited restrictions. Receptionist can only access to the Reservation Management section. The main aim of the entire activity is to automate the process of day to day activities of Hotel.

The Reservation System is to keep track in room and hall reservation and check availability. Using this system user can check which room is reserved and which room is available. He can reserve room from reservation module. Room management module help user to keep track of all information of hotel room. He can check room laundry service, food service and sweeping service from this module. The Inventory Control System will keep track in all inventories of the hotel and guest details will handled by guest management. Administration department will monitor the all. the main of developing this system is to computerize all the activity of the hotel like Admission of a New Customer, assign a room according to customer's demand, checkout of a customer and releasing the room etc. Using this system, you can manage check in and check out process easily. At check in, you can easily check the availability of rooms in the hotel. And at checkout you can easily generate the total bill.

The main objective of the entire activity is to automate the process of day to day activities of Hotel. Using this system, you can manage room activities and keep track of admission of a New Customer. Using this system, you can check rooms according to customer's need and can assign easily room to customer. Checkout of a customer and updating the releasing room information in the system is very easy. When user do checkout system will generate final bill after calculating all the bills. User can also check online, all the packages available. He can also book rooms online. He can also cancel booked room online. Hotel management can also check the list of Regular customers and feedback of the hotel's customer.

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Chapter-1(Introduction)

1.1 <u>About the system</u>

The application is reduced as much as possible to avoid errors while entering the data. It also provides err message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus, by this all it proves it is user-friendly. Hotel Management System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus, it will help organization in better utilization of resources.

1.2 <u>Purpose</u>

The prime purpose of this system is to introduce the students to digital services. The service will change the traditional system of restaurants and the billing system. The service aims at maintaining good health. Besides this, the system also aims at delivering the best food in the shortest period. The system will help the user to know about the food menu without going to the restaurants physically. Students can rate the restaurants by this the restaurants will get a chance to improve themself.

1.3 <u>Why this system is necessary?</u>

The importance of the system is undeniable. The system will have a positive impact on the users. With this system, the user can order the food online or even can keep it ready and he doesn't need to wait at the time of arrival. By this students or teachers don't need to skip food.

Chapter-2(Features)

2.1 About the feature of system:

> Hotel Management System has been applied for to computerized following functions that are performed by the system:

- ✓ Book a or more room for the customer
- ✓ Search customer record
- ✓ Edit customer record
- ✓ View customer record
- ✓ Delete customer record
- ✓ Exit from the system

The project not only helps the Administrator but also the customers of the hotel as. They can easily access their all information and booked room by the system users. And also find out their existing all previous records. He can easily maintain the queue of order as a result the disorder could be avoided. If the owner is running out of any specific food menu, he could easily update it on the system, rather than telling everyone who asks for the room service.

Chapter-3 (Implementation)

3.1 C concepts you used for your project:

In figure 1, I used two library header file named "stdio.h" , "conio.h", "ctype.h", "windows.h" , "stdlib.h" , "time.h" "string.h" is used for coping any string like user name, rovide standardized access to time/date manipulation and formatting. . We used if to select menu and set value for calculation (Fig:3). We also used "system("cls");", like in figure-2, at certain places to clear the screen. if else

condition was used in this system so that the system could give user a choice. To get the input from the users we used "scan.f" function. We also used string to print the name of the given order. We used a loop named "While loop". By this loop, we were able to match the user name and password and used for booking room like in figure-3. This was very important in the security purpose. For booking room(Fig:6).We used the concept of file im figure-3. In "file", we use the value that we want to save for latter. Thus, file was used to save the userID and password.

Fig-1: Use of header file

Fig-2: Cleaning screen

Fig-3: file handling

```
struct CustomerDetails    //STRUCTURE DECLARATION
{
    char roomnumber[10];
    char name[20];
    char address[25];
    char phonenumber[15];
    char nationality[15];
    char email[20];
    char period[10];
    char arrivaldate[10];
} s;
```

Fig-4: Structure Declaration

```
choice=getche();
choice=toupper(choice);
switch(choice)              // SWITCH STATEMENT
{
case '1':
    add();
    break;
case '2':
    list();
    break;
case '3':
    delete1();
    break;
case '4':
    search();
    break;
case '5':
    edit();
    break;
case '6':
    system("cls");
```

Fig-5: Switch Statement

```
        printf("\t\t\t\t\t\t*****************************************\n");

    printf("\t\t\t\t\t\t*    --------------------------------    *\n");
    printf("\t\t\t\t\t\t*           HOTEL BUTTERFLY CAVE         *\n");
    printf("\t\t\t\t\t\t*    --------------------------------    *\n");
    printf("\t\t\t\t\t\t*    --------------------------------    *\n");
    printf("\t\t\t\t\t\t*              BOOKING ROOM              *\n");
    printf("\t\t\t\t\t\t*    --------------------------------    *\n");

    printf("\t\t\t\t\t\t*****************************************\n\n\n");
        printf("\n\t\t\t\t\t\t\tEnter Customer Details:");
        printf("\n\t\t\t\t\t\t\t*********************");
        printf("\n\n\n\t\t\t\t\t\tEnter Room Number            :");
        scanf("%s",s.roomnumber);
        fflush(stdin);
        printf("\t\t\t\t\t\t\tEnter Name                   :");
        scanf("%s",s.name);
        printf("\t\t\t\t\t\t\tEnter Address                :");
        scanf("%s",s.address);
        printf("\t\t\t\t\t\t\tEnter Phone Number           :");
        scanf("%s",s.phonenumber);
        printf("\t\t\t\t\t\t\tEnter Nationality            :");
        scanf("%s",s.nationality);
        printf("\t\t\t\t\t\t\tEnter Email                  :");
        scanf("%s",s.email);
        printf("\t\t\t\t\t\t\tEnter Period(\'x\'days)        :");
        scanf("%s",&s.period);
        printf("\t\t\t\t\t\t\tEnter Arrival date(dd\\mm\\yyyy)  :");
        scanf("%s",&s.arrivaldate);
        fwrite(&s,sizeof(s),1,f);
        fflush(stdin);
        printf("\n\n\t\t\t\t\t\tCongratulations!Your room is successfully booked!!");
        printf("\n\n\n\n\n\n  PRESS 'Esc' KEY TO EXIT! ANY OTHER KEY TO ADD ANOTHER ROOM........");
        test=getche();
        if(test==27)
            break;
```

Chapter-4 (System testing)

4.1. Introduction

In system testing, the whole system will be tested and the report will be presented. By system testing, the client will be able to know if his demands have been fulfilled or not. Regardless of how competent software developers and engineers may be, the possibility of glitches and bugs is always present in untested software. The worst thing about bugs and glitches is that it indicates software is not secure.
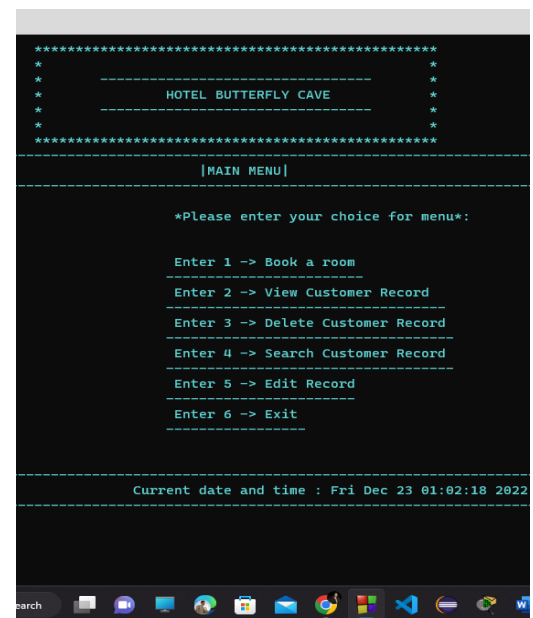
Especially when it comes to software that is meant for organizations, errors or loopholes can lead to vulnerability. Testing will lead to better functioning of the product as hidden errors will be exposed and fixed. If the functionality of the software is affected by the change of devices, it can count towards a negative user experience. Testing eliminates such errors in the performance while adding to the compatibility and adaptability of the software.

4.2 Input and desired output

(a) Test for upcoming hotel:
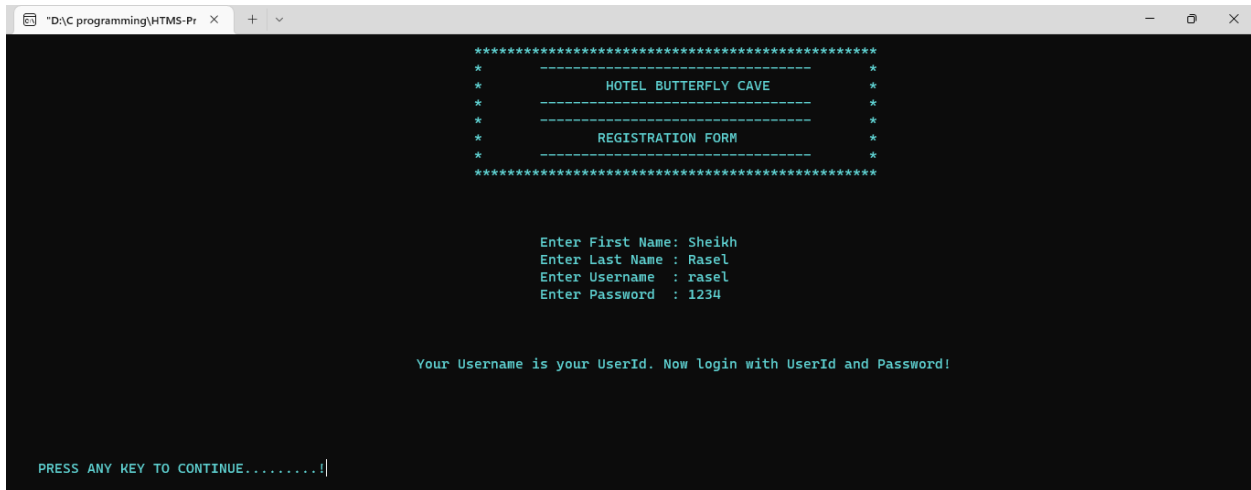
The test above has been done to ensure the quality of new owners. As opening, a hotel system requires lots of asset and it will be hard for the owner to give financial support for the advertisement of the cafe. Keeping this in mind our system has been developed in such a way that upcoming cafe can register their cafe's name in the system.

It also has another advantage which is, by this system they can save money of advertisement and can use that money to ensure the quality of the room. In figure 1 the test has been shown.

Figure-4.2(i): Upcoming hotel System test

(b) Registration System:
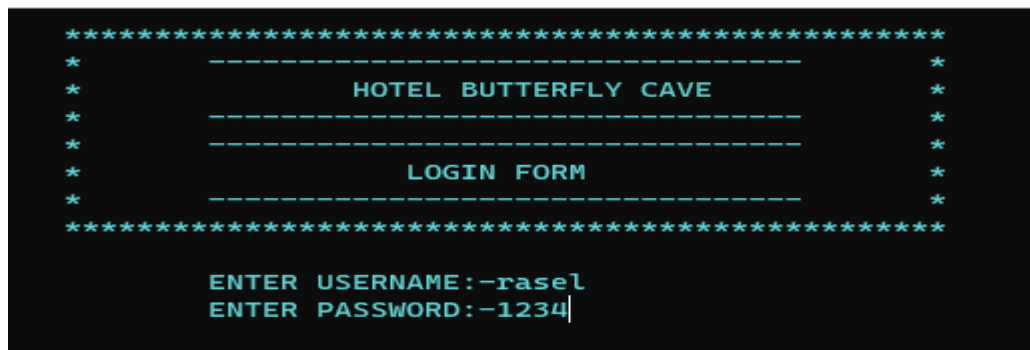
Figure-4.2(ii): Registration System

For a new user of the system must have to complete registration by providing all required information and username will be your userId.

(b) Login System:

Figure-4.2(iii): Login System

Here we aimed to keep the signup system as simple as possible. For this reason, we took the user name and password only. As each password is linked up with a dedicated E- mail for this reason they can change the password or username easily via recovery mail in their email inbox. The password is also linked up with a dedicated phone number and a dedicated card ID. For this reason, after every transaction, they will be notified via message and they can clear their payment using 1card.

Keeping these things in mind our team has selected using a username.

(c) Test for secure Login
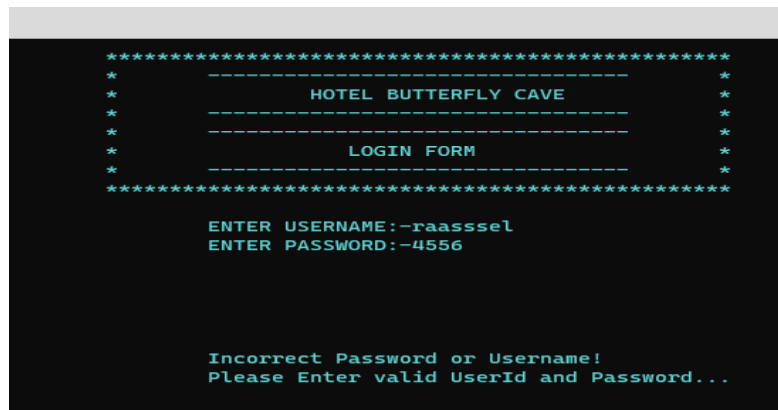
Figure-4.2(iv): Security Check

From Figure-4.2(ii) we can see that the ID we made we used the password 1234. But for testing we used a fake password but it passed. As the system was able to identify the wrong password and told enter correct password thus, we can say that the system passed the security test. Here to reduce the number of codes and to make the system more efficient. For this reason, we used just one conditional sentence containing AND for this reason if any of the input (username or password) is wrong then the system will tell the user to re-check the user name and password and input again.

(d) Booking Room
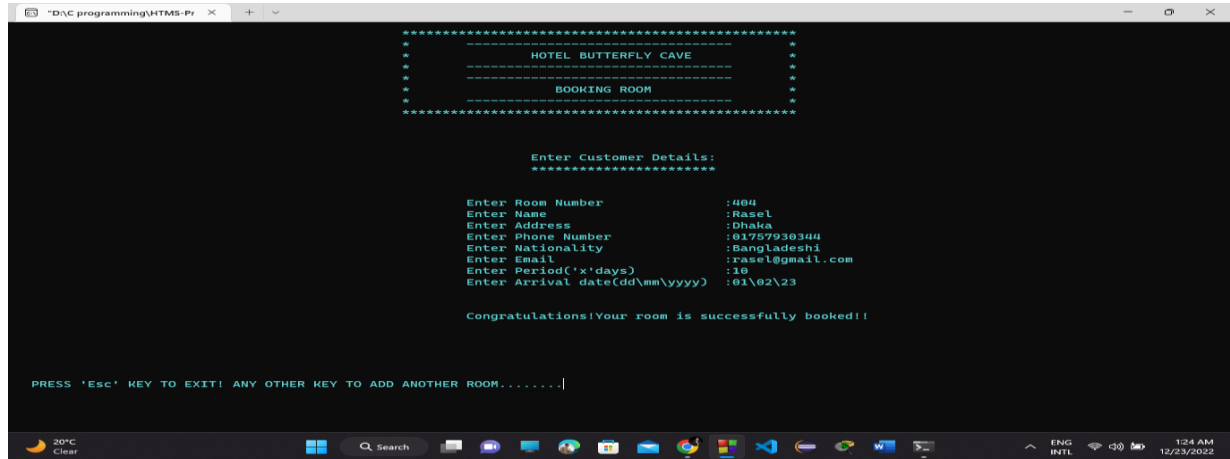
Figure-4.2(v): Security Check

By this field, Hotel administrator/staff can add or book room for the customer. Hotel management can also add many room and details of the customer if they want. There is number of fields here like, customer room number, customer address, phone number, email, Nationality, during period of days and the arrival date of the customer. After completing this process, users can also book another room and also, they can easily exit from the system by pressing "ESC" key.
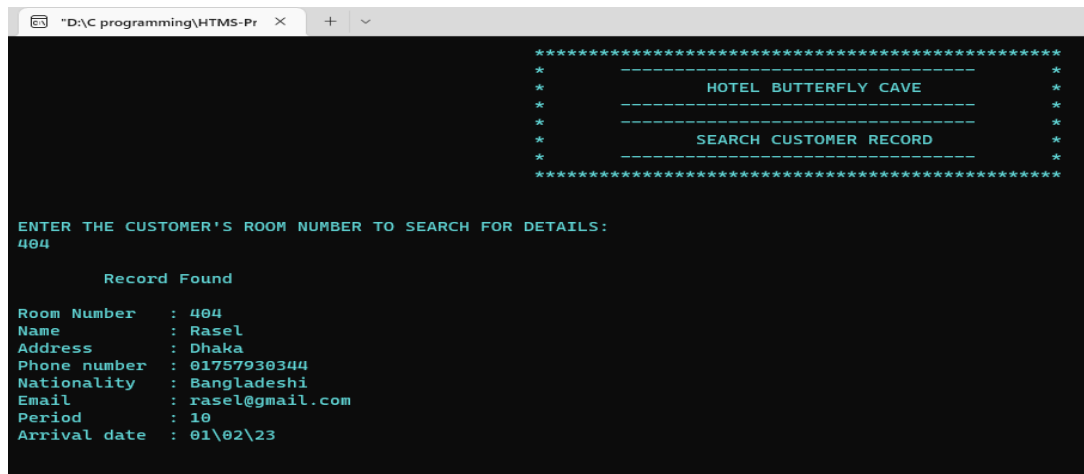
(e) View Customer Record:

For testing this field, we can see all the database of the recorded customer's list. From this section users can easily find all the customers list of the Hotel Butterfly Cave.

(f) <u>Search Customer Record:</u>
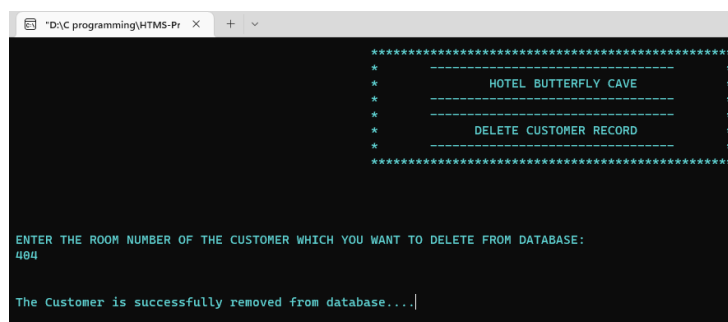
Figure-4.2(vii): Testing search portion

Here, user search a customer record by their room number which room number is 404.Then the system showed all the details of the targeted customer information. This part is working successfully.

(g) <u>Delete customer record:</u>

Figure-4.2(viii)-1: Search target

Figure-4.2(viii)-2: Search checking

Figure-4.2(viii)-3: Delete works successfully

(g) Exit from the system:

Figure-4.2(ix)-1: Exit from system

4.3 <u>Report Summary:</u>

Here in report summery we will try to present overall summery of the given system. As a result, the owner of the software will get a clear idea of the software by looking at the chart only. Here in this chart we took name of the test, we use symbols to show the presence or absence of the function in the system. Then we also kept the comment section, in this section there are information about what update could be done in neat future.

SL NO	Name	Yes	No	Comment
1	Hotel System	●		Online section could be added
2	Registration	●		Email verification could be added
3	Login System	●		Auto login could be added.
4	Individual customer report		●	System under development.
5	Customer services	●		Multiple users' system could be added
6	Customer Report		●	Will be available soon.
7	Tourist Package & Guide		●	Will be available soon.

Table-1: Summary Report

Chapter-5 (Conclusions)

5.1 Good Features:

Our project is only a humble venture to satisfy the needs to manage their project work. Several user-friendly coding has also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the school. The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

5.2 Limitations of the System:

Although I have put my best efforts to make the software flexible, easy to operate but limitations cannot be ruled out even by me. Though the software presents a broad range of options to its users some intricate options could not be covered into it, partly because of logistic and partly due to lack of sophistication. Paucity of time was also major constraint; thus, it was not possible to make the software foolproof and dynamic. Lack of time also compelled me to ignore some part such as storing old result of the candidate etc.

- ❖ List of limitations which is available in the Hotel Management System:
    - Excel export has not been developed for Room Customer due to some criticality
    - The transactions are executed in off-line mode, hence on-line data for Booking, Tariffs capture and modification is not possible.
    - Off-line reports of Room, Food Bill, Booking cannot be generated due to batch mode.

5.3 <u>Future Enhancement:</u>

In a nutshell, it can be summarized that the future scope of the project circles around maintaining information regarding:

- We can add printer in future.
- We can give more advance software for Hotel Management System including more facilities
- We will host the platform on online servers to make it accessible worldwide
- Integrate multiple load balancers to distribute the loads of the system
- Create the master and slave database structure to reduce the overload of the database queries
- Implement the backup mechanism for taking backup of codebase and database on regular basis on different servers

The above-mentioned points are the enhancements which can be done to increase the applicability and usage of this project. Here we can maintain the records of Room and Customer Also, as it can be seen that now-a-days the players are versatile, i.e. so there is a scope for introducing a method to maintain the Hotel Management System. Enhancements be done to maintain all the Room, Customer Booking, Tariffs, Food.

5.3 (a) <u>References:</u>

- Google for problem solving
- https://www.tutorialspoint.com
- https://www.w3schools.com/
- https://github.com/
- https://stackoverflow.com/
- https://www.youtube.com/

Chapter-6(User Manual)

6.1 Introduction:

The User Manual contains all essential information for the user to make full use of the system. This manual includes a description of the system functions and capabilities, contingencies and alternate modes of operation, and systematic procedures for system access and use. We used different screenshot to make things easier for the users. Here the manual has been divided into many categories so that user can easily identify their problems and can easily find the part that he was looking.

(a)Entering the system

To enter the system at first one need to ensure proper net connection and OS compatible to the system.
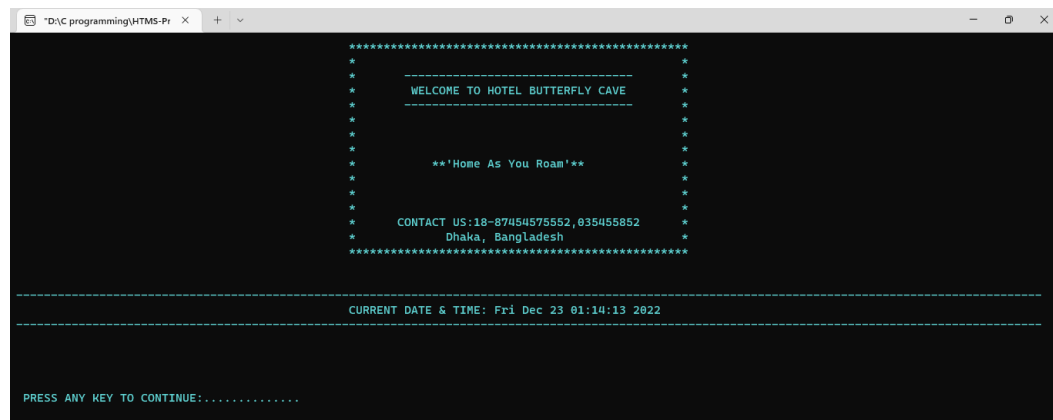
Fig-6a.1: Home Page

The system is running with a welcome page for the users from Hotel Butterfly Cave.
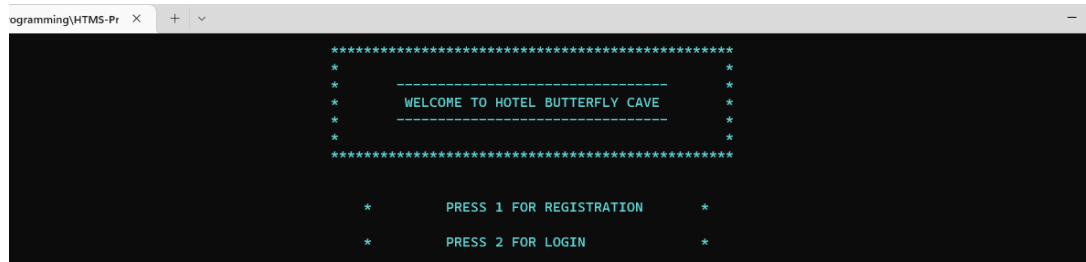
Fig-6a.2: System Entering page

(b)<u>Creating an account:</u>
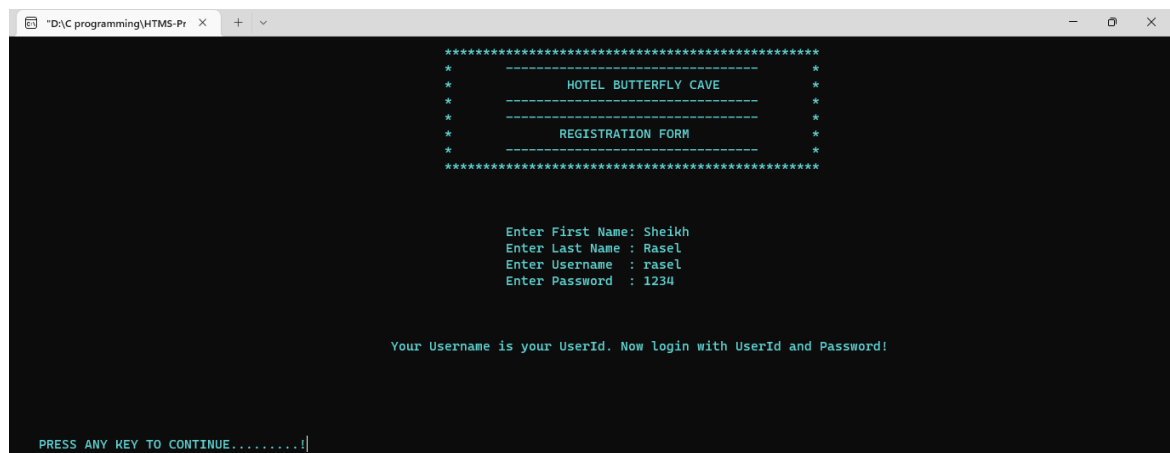
Fig-6b.1: Registration page

Created an account by providing all required information for the system. Now we can enter the main system by going to logged in successfully.
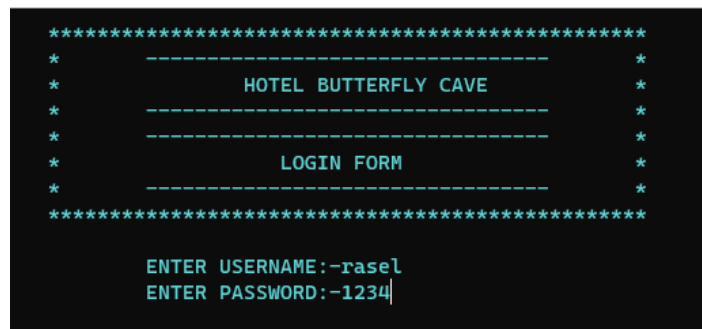
Fig-6b.2: Login Page

(C) <u>Main System Process:</u>

Fig-6c.1: Main Menu

In this (Fig-6c.1) part is the main part of the system. This is the main menu of the system. We can get any services from here by pressing specific item number for the specific service. We can go another part of the system from here like, we can book room, we can view all customer record by entering 2. Also, by enter 3 we can delete customer record which we want. If we want to search any customer then easily by pressing 4 we can search specific customer details. Also, we can edit customer details by pressing 5. And at last, when we have to exit from the system, then simply by pressing 6 we can successfully exit from the system. Here all the process is shown below step by step:

Fig-6c.2: Booking Room

Fig-6c.3: Search customer

Fig-6c.4: View Customer

Fig-6c.5,6: Edit & delete record