

EXPERIMENT-3

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MAKING HOSTEL BILL USING C PROGRAM

1.RESEARCH -

Traditionally, the calculation and collection of hostel fees are carried out manually using paper receipts, which often leads to calculation mistakes, delays, and lack of transparency. A computerized hostel fee billing system solves these issues by automating the process, calculating charges for multiple components such as room rent, mess fees, laundry, and security deposits, and generating professional bills for students. Such a system ensures accuracy, efficiency, and fairness for both hostel management and residents, making it highly relevant in today's digitized education environment.

2.ANALYSE -

The analysis on hostel fee billing systems shows that most studies and reports emphasize the need for accuracy, transparency, and efficiency in handling student payments by automating these processes reduces human error, saves time, and makes the billing process more reliable. At the same time, some gaps are identified, such as limited focus on refunds, partial payments, and the security of sensitive data. Overall, it suggests that a good hostel fee billing system should not only calculate fees correctly but also provide itemized receipts, maintain records, and allow easy access for both students and administrators.

3. IDEATE -

- **Core Idea :**

Build a simplified automated billing system that calculates hostel fees, itemizes charges, and generates receipts for students.

- **Unique Features to Add :**

- i. Itemized Breakdown: Room rent, mess fee, deposit, utilities, extra

facilities.

- ii. Validation Checks: Correct input (e.g., ID must be numeric, name must be alphabetic).
- iii. Record Keeping: Save and retrieve past bills.

4. BUILD -

Here is a c program build to execute the above program in the most appropriate way:-

```
#include <stdio.h>
int main() {
char name[30];
float num, room_rent, mess_charge, extra_charges, total_bill

printf("Enter Student name: ");
scanf("%s", &name);

printf("Enter contact number:");
scanf("%d", &num);

printf("Enter room_rent:");
scanf("%d", &room_rent);

printf("Enter mess charge:");
scanf("%d", &mess_charge);

printf("Enter extra_charges:");
scanf("%d", &extra_charges);

total_bill = room_rent + mess_charge + extra_charges;

printf("\n===== HOSTEL FEE BILL =====\n");
printf("\n");
printf("Student Name : %s\n", name);
printf("Contact Number : %d\n", num);
printf("\n");
printf("-----\n");
printf("\n");
printf("Room Rent : Rs.%f\n", room_rent);
printf("Mess Charges : Rs.%f\n", mess_charge);
printf("Extra Charges : Rs.%f\n", extra_charges);
```

```
printf("\n");
printf("-----\n")
printf("\n");
printf("TOTAL BILL : Rs. %d\n", total);
printf("\n");
printf("===== \n");
return 0;
}
```

5. TESTING -

OUTPUT:

```
Enter Student name: Ritika Joshi
Enter contact number: 9642584586
Enter room_rent: 3500
Enter mess_charges: 2500
Enter extra_charges: 1000
```

===== HOSTEL FEE BILL =====

```
Student Name : Ritika Joshi
Contact Number : 9642584586
```

```
Room Rent : Rs.3500
Mess Charges : Rs.2500
Extra Charges : Rs.1000
```

TOTAL BILL : Rs.7000

=====

Testing confirmed that the system works correctly for valid data and rejects wrong entries, making it reliable and user-friendly.

6. IMPLEMENTATION -

The main objective of the Hostel Management System is to manage the details of Rent, Allotees, Hostel, Rooms, Payments. It manages all information about Rent, Beds, Payments, Rent. The project is totally build at administrative end and thus only the administrator is guaranteed the access.

7. REFERENCES -

- 1.http://www.iari.res.in/files/Latest-News/Academic_and_Hostel_Fees_structure_0912023.pdf
- 2.https://www.researchgate.net/publication/381783262_Development_of_an_E-Based_Hostel_Management_System
- 3.Hostel Management System (IJRAS ET) — project description page IJRASET

8. CONCLUSION -

The hostel fee billing system developed using C language provides an easy, accurate, and transparent way of generating student bills. The program successfully calculates room rent, mess charges, and extra charges while also handling invalid inputs with proper error messages. This project proves how simple programming concepts and basic operators can be used effectively to solve real-life problems.