

# Hostel Room Allotment – IIT (BHU)

## DBMS Project

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**Project Definition:** Create an online web application for the purpose of efficient and effective hostel room allotment in IIT (BHU) for registered students. The project will cover room allotment in the available hostels for all the students except for the freshly enrolled students (first year students).

*Client:* Council of Wardens (Institute Administration)

*User:* Students enrolled in the Institute

**Motivation:** Currently the hostel room allotment for students is done manually through applications to Wardens of the hostels and the students need to be present physically for the same. This system is especially tedious in case of a large number of students and because of the requirement to fill out pen-paper forms. The administrators (Wardens and assistants) also need to process the forms which can be inefficient.

The project aims to transfer most of the manual labour to an automated process for ease of use for both the students and the administrators (Wardens). This should result in an efficient and user friendly system for Hostel Allotment to students.

### **Requirements:**

The following are required for the project from the **admin (warden) side**:

- 1) Hostel Information: List of hostels used for accommodation.
- 2) Seating Capacity of hostels: How many seats are available in each hostel?
- 3) Hostel Allotment information: Which batch of each branch has been allotted to which hostel?
- 4) Batch strength Information: How many students are there in each batch?
- 5) Student Information: For each student, the information about the deposition of the current session's Mess Fees is needed.
- 6) For each student, we need the information about the clearance of last session's Mess Dues. No student is allotted a room until all his Mess Dues have been cleared.

- 7) Access to other credentials of each student including his institute e-mail ID information.
- 8) The range of rooms the students of a particular batch can occupy.

The following are required for the project from the **user (student) side**:

- 1) *Log In credentials*: No student is allowed to access the forms without proper authentication using the institute e-mail ID and password. Each student may only register using his institute ID.
- 2) *Course enrolled in*: What course the student is pursuing, e.g. B. Tech, M. Tech, Integrated Dual Degree, PHD etc.
- 3) *Department enrolled in*: What department the student belongs to, e.g. Department of Computer Science and Engineering.
- 4) *Session enrolled in*: The session in which the student has enrolled in, e.g. 2016-17.
- 5) *Part enrolled in*: The year the student has enrolled in this session, e.g. Part II, Part III etc.
- 6) *Student Name*: Name of the student. Must be consistent with the name provided at the time of registration in the institute.
- 7) *Student Roll Number*: The unique roll number provided to the student at the time of registration.
- 8) *Mess Fee Receipt Reference Number*: The reference number of the Mess Fee receipt used to pay the Mess Charge Advanced.
- 9) *Previous hostel allotment information*: Includes information about the previous hostel the applicant resided in and his room number.
- 10) *No-dues certificate*: The student must upload a copy of his no-dues certificate as obtained from his previous hostel warden.
- 11) *Room Number*: The students will be given a range of rooms to choose from in the allotted hostels. The students may fill the number of the room of their preference and these will be allotted on a First Come First Serve basis.
- 12) *Contact Information*: The contact information of the student. Includes mobile number for contact purposes.
- 13) *Guardian Information*: The address and contact information of the guardian of the student, e.g. contact information of the father/mother of the student.
- 14) *Local Guardian Information*: The address and contact information of the local guardian of the student to refer to in case of any emergencies.
- 15) *Bank account information*: The bank account information of the student. Used to deposit the leftover funds after the semester/session.

#### **Rules and other requirements from the system:**

- 1) The student should apply online using their institute e-mail IDs only. Personal IDs and unauthenticated users should not be allowed to apply for hostel room allotment.
- 2) The students of a particular batch may only apply in the hostel allotted to them as decided by the administration. It is essential that this information be provided by the administrators and the students cannot alter this once it is decided.
- 3) The student may only fill the room preference from the range of rooms allotted to the particular batch the student belongs in.
- 4) The rooms should be allotted strictly on a First Come First Serve basis.

- 5) No student is allotted a room until his Mess fees has been paid. The Mess Fees receipt reference number provided by the student should be consistent.
- 6) There should be no clashes in the room allotment. In case of any discrepancy, the decision of the Hostel Warden is final and binding, other factors notwithstanding.
- 7) The students may fill only one choice and it is advised that the students fill their choice carefully.
- 8) Once the student has filled in his/her choice, the choice may not be changed. All applications for change of choice will be dealt by the Head Warden separately.
- 9) After submitting the online request, the student must take the printout of the Hostel Allotment Form and submit the duly signed form in Hostel office along with the supporting documents.
- 10) The room will be considered 'allotted' only when the form has been properly submitted in the office of the respective hostel. The rooms will be considered 'reserved' and not 'allotted' if the student has filled out the online form and has not submitted the hard copy of the form along with the required documents in the hostel office.
- 11) All other discrepancies will be dealt with by the Hostel Warden or Dean of Student Affairs as applicable. Their decision will be final and binding.

### **Breakdown of the System:**

The online room allotment system should basically consist of three distinct sections:

- 1) *Log-In Section:* The first section of the Hostel Room Allotment system, which makes sure the system is accessed only by authorized users. Basically consists of a form with required fields including a user ID (the institute e-mail ID) and password. This is checked against the established institute database.
- 2) *Input Section:* Once the user has been authenticated, he is required to fill out various details through certain forms. The forms should cover the fields described under the '*Requirements from the user (student) side*' section. It is essential the information provided here is valid and consistent with the information provided in the institute. This information will be used to allot hostel rooms to the students and may not be changed in the future, barring exceptions.
- 3) *Processing Section:* Once the student has filled out all the required information and successfully submitted it, the room will be reserved for that particular student. The system should take care of this section and no user interaction should alter this phase in any way.