

**A**

**Project Report on**  
**"Hostel Management System"**



**Department of Computer Science and Engineering**  
**NATIONAL INSTITUTE OF TECHNOLOGY PATNA**  
**University Campus, Bihar – 800005**  
**Submitted By:**

<b>Name</b>	<b>Roll No.</b>
B. Rahul	2006028
Alokkumar Bharti	2006018
Poonam Safi	2006021
Namala Venkatarao	2006014
Raushan Kumar	1806047

## TABLE OF CONTENTS

<u>S. No</u>	<u>Content</u>	<u>Pg. No</u>
1.	Aim of the project	3
2.	Project description <ul style="list-style-type: none"><li>• Objective</li></ul>	3
3.	Technologies used	4
4.	Analysis of the project	4
5.	Schema	5
6.	ER diagram	6-7
7.	SQL Query with output snapshots	8-12
8.	Summary	12

## **1.Aim of the project:**

To design and develop hostel management system using DBMS and MySQL.

## **2.Project Description:**

The hostel management system is web-based software to provide college students accommodation to the university hostel more efficiently. This project also keeps details of the hostellers and applied students. It is headed by Warden. He will be the administrator. This document is intended to minimize human works and make hostel allocation an easier job for students and hostel authorities by providing online application for hostel, automatically select the students from the waiting list and mess calculation, complaint registration, noticeboard etc. etc. Students will get approval notification in their mails. Hostellers can view notice board, hostel fee and mess menu by login into the online system.

There are a lot of drawbacks in keeping and maintaining a hostel. Especially with a manual system. Since most hostels are being run by only one hostel manager, the number of students in a room are sometimes not known by the officer. He has to go room by room to ensure that a room is occupied or not. Sometimes people may be owing in the hostel and they are saved on papers or huge notebooks, and sometimes receipts. If the books should go missing or stolen, one would never be able to know if a student is owing or not. Room allocation also becomes a problem as the officer might not know which rooms are available or not. And some hostels have a lot of rooms or have many stores and it would be very tedious to go through all stores in search of a free room for an applicant. Also the officer might not know the number of students in a room or know if a room is full or not

### **2.1 Objective:**

The main objective of this project is to implement an online web application of Hostel Management which replicates all the functionalities of an offline version.

The prior advantages of this project are:

- Reduced paperwork
- Increased ease of management
- Quick data retrieval

And, a lot of management services have now shifted to online mode due to its increased trend in usage and convenience. Hence, this project is also an initiative towards helping students and management staff reduce their complexity in this work.

### **3.Technologies Used:**

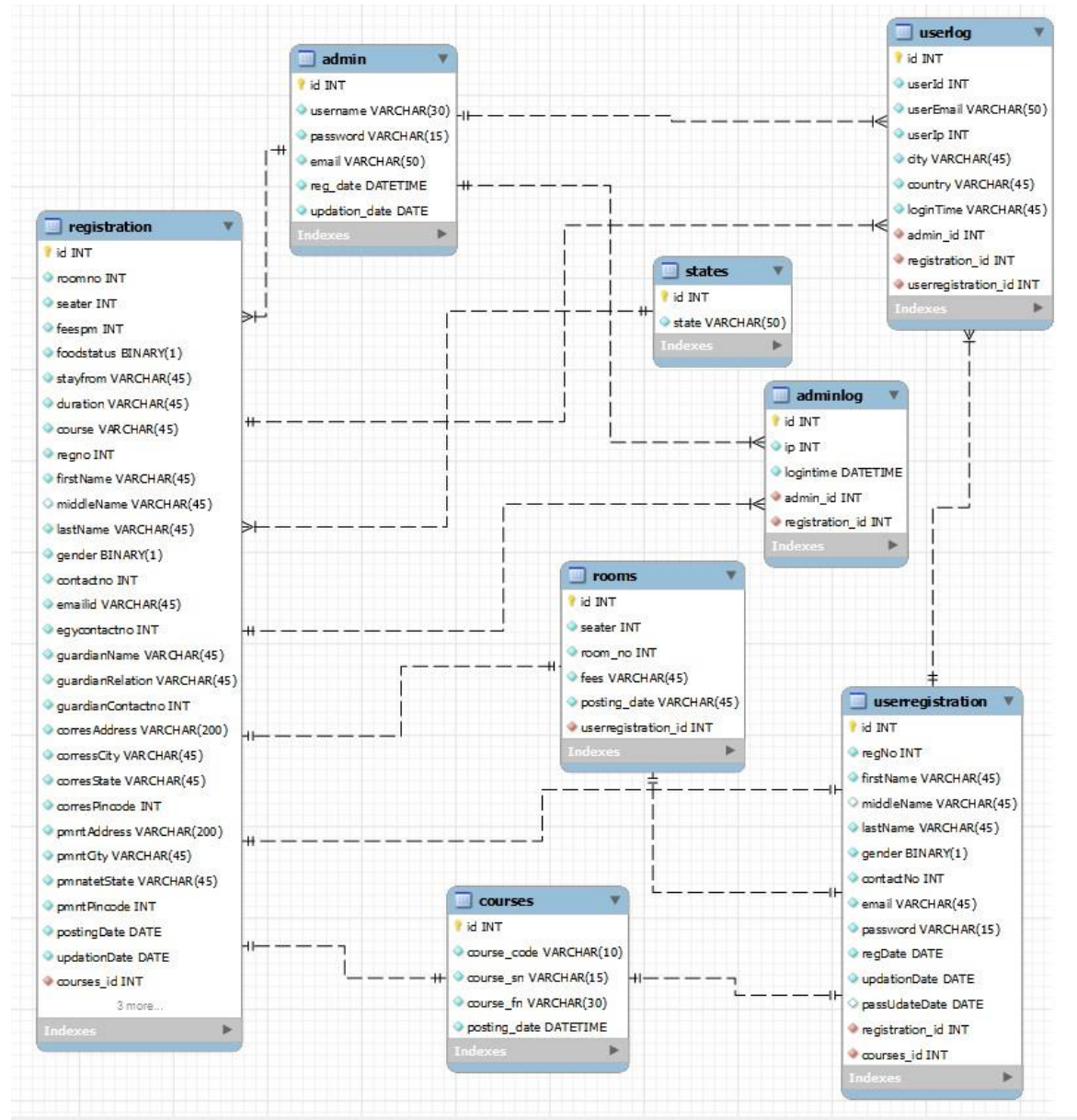
- MySQL for database management.
- HTML, CSS, JavaScript for webpage implementation.
- PHP for backend data integration services.

### **4.Analysis of the project:**

- The UI of this project is made using HTML and CSS while the backend services are provided by PHP and MySQL programmed databases.
- This project's users are registered with any of the two distinct levels Admin and Student.
- The admins have complete control over the webpage and the students can login/register to the webpage and view their information like their allotted rooms, amount of fees due etc.,
- There will be 8 tables in the main schema of this project. They are: admin, adminlog, courses, registration, rooms, states, userlog and userregistration.
- All these tables are connected properly with required relationships for proper and efficient data management.

## 5.Schema:

The schema of project is named with hostel and consists of 8 tables mentioned above consisting of necessary attributes to store data. The skeleton structure mentioned herewith explains how each table is connected and what attributes they consist of.



## **6.ER Diagram:**

An Entity-Relationship (ER) diagram is a pictorial representation of a schema / database. Entity Relationship Diagram is used in modern database software Engineering to illustrate logical structure of database.

It is relational schema database modelling method used to model a system and approach. This approach commonly used in database design. The diagram created using this method is called ER-diagram.

The ER-Diagram depicts the various relationships among entities, considering each object as entity. The ER-Diagram is the notation that is used to conduct the data modelling activity.

- Entity is represented as Rectangle →



An Entity may be any object, class, person or place in ER diagram.

- Attribute is represented as Circle →



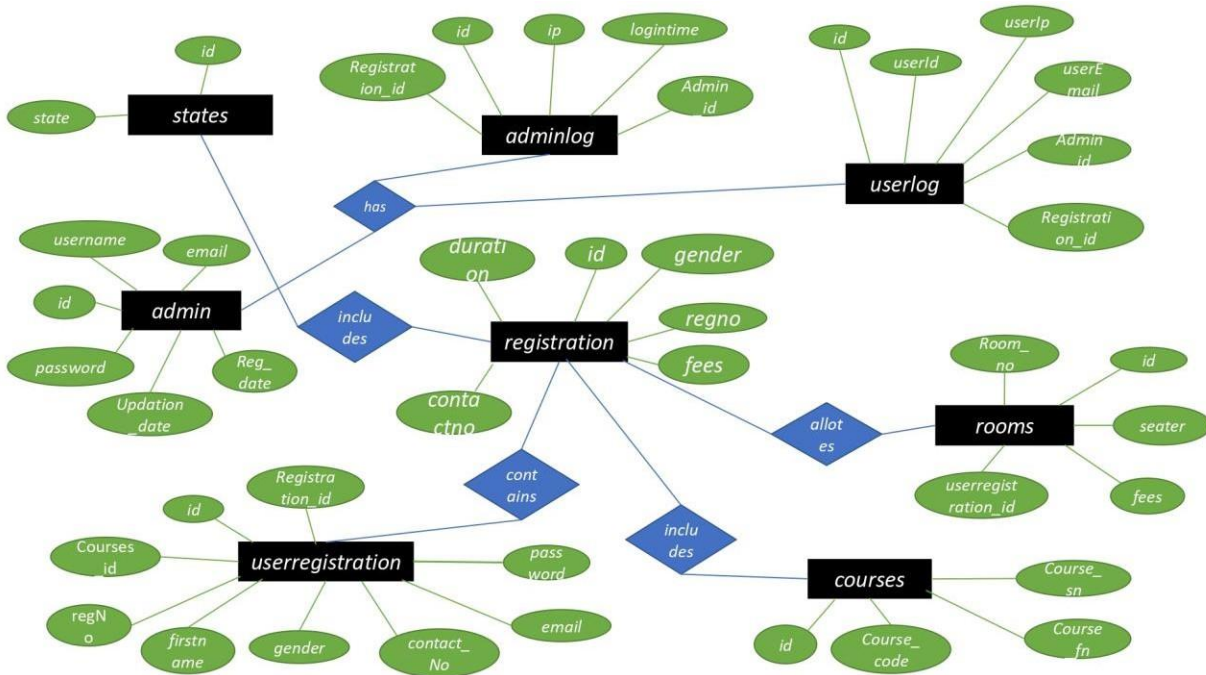
The Attribute is used to describe the property of an entity.

- Relationship is represented as Diamond →



A Relationship is used to describe the relationship between entities.

The following picture explains about all the entities, the way they are related along with their attributes.

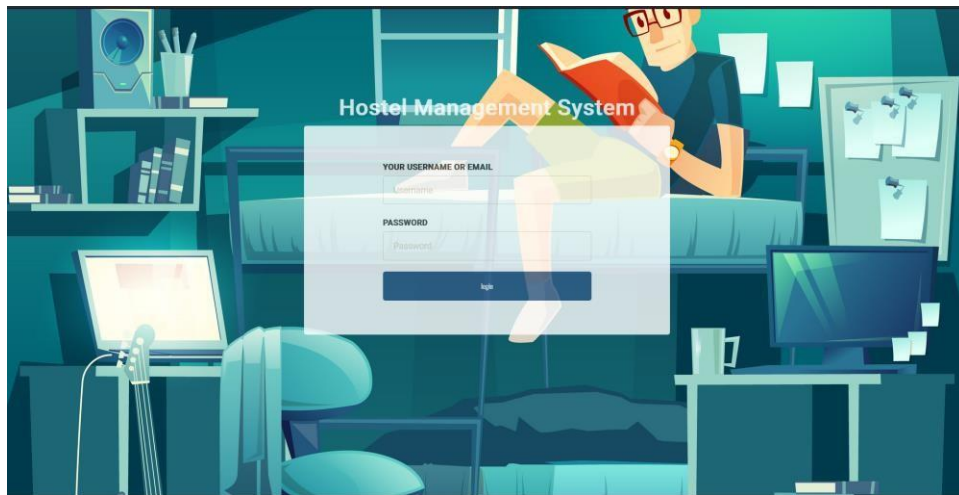


This ER diagram explains the total 8 entities and their inter-relationships along with their own attributes.

S. No	Relationship	Cardinality Ratio
1.	Admin - adminlog, userlog	1 - n
2.	States - registration	1 - 1
3.	Registration - userregistration	1 - 1
4.	Registration - courses	1 - n
5.	Registration - rooms	1 - 1

## 7.OUTPUTS

### Main Page



### Student Registration

Hostel Management System

Account

Registration

FILL ALL INFO

**Room Related info**

Room no.

Seater

Fees Per Month

Food Status ☒ Without Food ☐ With Food(Rs 2000.00 Per Month Extra)

Stay From

Duration

**Personal info**

course

Registration No :

Hostel Management System

Account

Registration

FILL ALL INFO

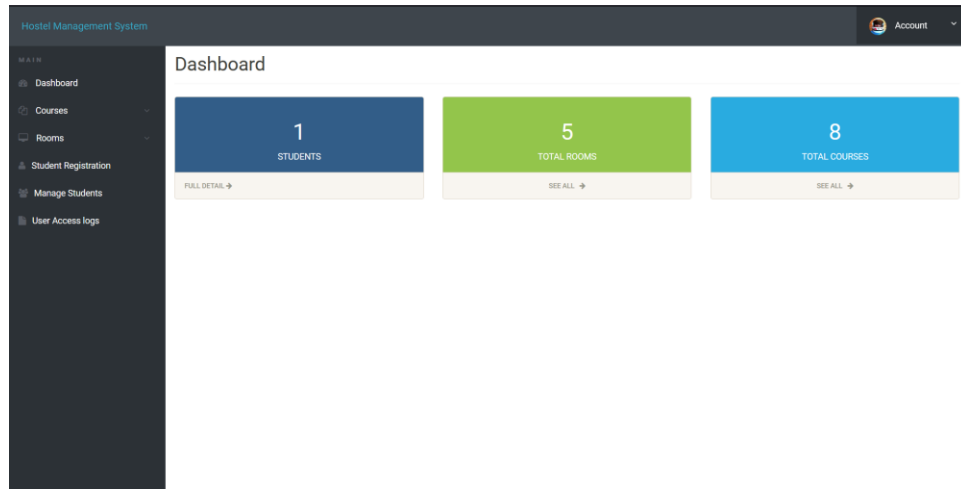
Hostel already booked by you

My Room

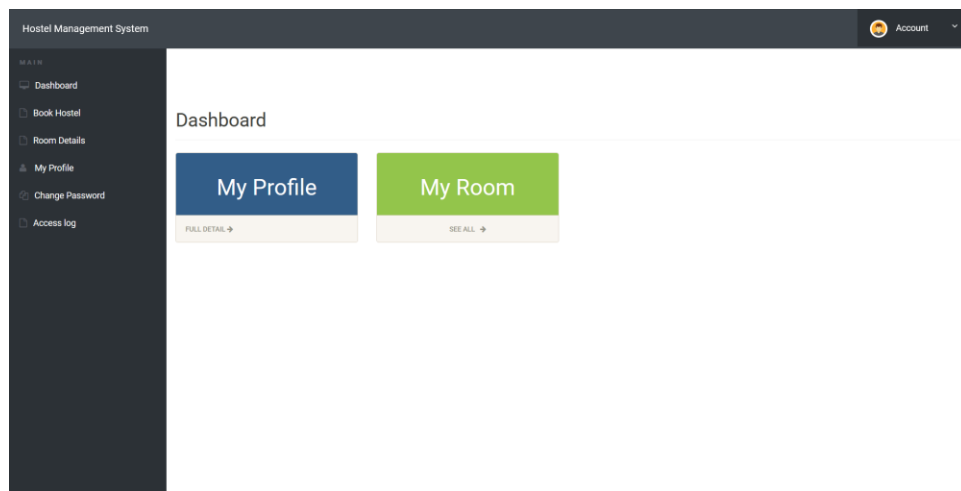
SEE ALL



# Admin Dashboard



# Student Dashboard



The 'Alokkumar's Profile' page in the Hostel Management System shows a form for user details. The sidebar navigation is identical to the Student Dashboard. The profile form includes fields for Registration No (2006018), First Name (Alokkumar), Middle Name, Last Name (Bhanti), Gender (male), Contact No (9668778631), and Email Id (alok@gmail.com). An 'Update Profile' button is located at the bottom right of the form. The top header includes the system name and a user account dropdown.

Command: select \* from courses;

Hostel Management System Account

Manage Course

ALL COURSES DETAILS

Show 10 entries Search:

Sno.	Course Code	Course Name(Short)	Course Name(Full)	Reg Date	Action
1	CS5401	DBMS	Database Management System	2020-07-05 01:01:42	<a href="#">✕</a>
2	CS5402	AI	Artificial Intelligence	2020-07-05 01:01:42	<a href="#">✕</a>
3	CS5403	CN	Computer Network	2020-07-05 01:01:42	<a href="#">✕</a>
4	CS5404	CD	Compiler Design	2020-07-05 01:01:42	<a href="#">✕</a>
5	CSL5401	DBMS Lab	Database Management System laboratory	2020-07-05 01:01:42	<a href="#">✕</a>
6	CSL5402	AI lab	Artificial Intelligence laboratory	2020-07-05 01:01:42	<a href="#">✕</a>
7	CSL5403	CN lab	Computer Network laboratory	2020-07-05 01:01:42	<a href="#">✕</a>
8	CSL5404	CD lab	Compiler Design laboratory	2022-11-23 16:37:27	<a href="#">✕</a>
Sr No	Course Code	Course Name(Short)	Course Name(Full)	Regd Date	Action

Showing 1 to 8 of 8 entries

PREVIOUS 1 NEXT

Command: select \* from rooms;

Hostel Management System Account

Manage Rooms

ALL ROOM DETAILS

Show 10 entries Search:

Sno.	Seater	Room No.	Fees (PM)	Posting Date	Action
1	1	100	8000	2020-04-12 04:15:43	<a href="#">✕</a>
2	2	201	6000	2020-04-12 07:00:47	<a href="#">✕</a>
3	2	200	6000	2020-04-12 07:00:58	<a href="#">✕</a>
4	3	112	4000	2020-04-12 07:01:07	<a href="#">✕</a>
5	5	132	2000	2020-04-12 07:01:15	<a href="#">✕</a>
Sno.	Seater	Room No.	Fees (PM)	Posting Date	Action

Showing 1 to 5 of 5 entries

PREVIOUS 1 NEXT

Command: select \* from userregistration;

Hostel Management System

Account

Dashboard

Courses

Rooms

Student Registration

Manage Students

User Access logs

Manage Registered Students

ALL ROOM DETAILS

Show10entries

Search:

Sno.	Student Name	Reg no	Contact no	room no	Seater	Staying From	Action
1	AlokumarAnshumanBharti	2006018	8668778631	100	1	0000-00-00	<div></div>
Sno.	Student Name	Reg no	Contact no	Room no	Seater	Staying From	Action

Showing 1 to 1 of 1 entries

PREVIOUS

1

NEXT

Command: select \* from userlog;

Hostel Management System

Account

Dashboard

Courses

Rooms

Student Registration

Manage Students

User Access logs

Access Log

ALL COURSES DETAILS

Show10entries

Search:

Sno.	User Id	User Email / Reg No.	IP	City	Country	Login Time
1	4	10	127.0.0.1			2022-11-22 20:17:17
2	4	alokkumar@gmail.com	127.0.0.1			2022-11-22 20:24:31
3	4	10	127.0.0.1			2022-11-23 15:35:08
4	5	2006018	127.0.0.1			2022-11-23 20:03:05
5	6	2006028	127.0.0.1			2022-11-23 20:26:44
6	5	2006018	127.0.0.1			2022-11-23 20:28:03
7	5	2006018	127.0.0.1			2022-11-23 20:32:38
8	5	2006018	127.0.0.1			2022-11-23 22:56:46
9	5	2006018	127.0.0.1			2022-11-23 22:58:09
10	8	2006014	127.0.0.1			2022-11-23 23:56:17
Sno.	User Id	User Email /Reg No.	IP	City	Country	Login Time

Showing 1 to 10 of 11 entries

PREVIOUS


1

2

NEXT

Command: select \* from rooms where id = 2006018;

Hostel Management System

Account

MAIN

Dashboard

Book Hostel

Room Details


My Profile

Change Password

Access log

Rooms Details

ALL ROOM DETAILS



Room Related Info

Registration Number :	2006018	Apply Date :	2022-11-23 20:29:16		
Room no :	100	Seater :	1	Fees PM :	8000
Food Status:	Without Food	Stay From :	0000-00-00	Duration:	0 Months
Hostel Fee:	0	Food Fee:	0 (You booked hostel without food).		
Total Fee :	0				

Personal Info

Reg No. :	2006018	Full Name :	AlokumarAnshumanBharti	Email :	alok@gmail.com
Contact No. :	8668778631	Gender :	male	Course :	DataBase Management System
Emergency Contact No. :	4545455454	Guardian Name :	NA	Guardian Relation :	NA
Guardian Contact No. :	0				

Addresses

Correspondence Address	Bhadrovati	Permanent Address	Bhadrovati
------------------------	------------	-------------------	------------

## Option to change password of any user

The screenshot shows a web application titled "Hostel Management System". On the left is a dark sidebar with a "MAIN" header and a list of menu items: Dashboard, Book Hostel, Room Details, My Profile, Change Password (highlighted with a blue circle), and Access log. The top right of the page has a header with a user icon and the text "Account". The main content area is titled "Change Password" and contains a form with three input fields labeled "old Password", "New Password", and "Confirm Password". Below these fields are two buttons: "Cancel" and "Change Password". Above the input fields, there is a section labeled "LAST UPDATE DATE:" followed by a blank space.

### **Summary:**

- Although this project lacks several functionalities, this minimalistic version can be used for hostel data management to the current level.
- The next version of this webpage will be developed using Node.js as it promises better security and more features and is also more famous these days.
- More functionalities will be added to this page like the hostel provides internet to the students and tracks their data usage and anonymous network traffic through separate network log and APIs like GlassWire etc.,
- The user interface of this webpage will be upgraded in the future using famous JavaScript libraries like React.js or Angular.js



**Department of Computer Science and Engineering**  
**NATIONAL INSTITUTE OF TECHNOLOGY PATNA**  
**University Campus, Bihar – 800005**

**Submitted by**

<b>Name</b>	<b>Roll No.</b>
<b>B. Rahul</b>	<b>2006028</b>
<b>Alokkumar Bharti</b>	<b>2006018</b>
<b>Poonam Safi</b>	<b>2006021</b>
<b>Namala Venkatarao</b>	<b>2006014</b>
<b>Raushan Kumar</b>	<b>1806047</b>

**Submitted to:**

**Respected Bhaskar Mondal Sir**

**THANK YOU**