

Hostel Management System

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Changa

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PROJECT PROFILE

❖ Project profile:

Project Name:	Hostel management system
Type of Applications:	Website
Team Size:	3
Front End:	HTML, CSS, JAVASCRIPT
Back End:	PHP, MYSQL
Server Requirements	XAMPP PHP MYSQL Mozilla, Google Chrome
Project Description:	Hostel Management System is designed for better interaction between admin and user. Hostel Mgmt System handles all the requirements for easy Hostel Management. This software will help to manage all hostel activities like hostel admissions, fees, room details, mess allotment, student profiles & generates related reports for smooth transactions. It is also used to manage monthly mess bill calculations, access logs, and many more.

INTRODUCTION TO TOOLS

❖ **Introduction to Tools:**

PHP:

PHP is a general-purpose scripting language originally designs for web development to produce Dynamic Web pages. For this purpose, PHP code is embedded into the HTML source document and interpreted by a web server with a PHP processor module, which generates the web page document.

PHP originally stands for "Personal Home Page" but, nowadays it stands for "PHP: Hypertext Pre-processor". It is a server-side scripting language commonly used for developing a dynamic website.

Over the past years, the internet has gone from the preserve of academics to the cutting edge of business. A large part of this has driven the growth of the web, with its graphical browser and high media profile. The change from a static HTML page to dynamic, user interactive presentations has been achieved largely by the introduction of scripting technologies.

MYSQL:

MYSQL is the most popular 'Open Source' SQL database management system is developed, distributed and supported by MYSQL AB'. MYSQL AB' is a commercial company, founded by the MYSQL developers, that builds its business by providing services around the 'MYSQL' database management system.

MYSQL is a database management system. A database is a structured collection of data. It may be anything from a simple shopping list to a picture gallery or vast amounts of information in the corporate network. To add, access, and process data stored in a computer database, you need a database management system.

A relational database stores data separately rather than putting all the data in one big storeroom. This adds speed and flexibility. The SQL part of 'MYSQL' stands for "Structured Query Language". SQL is the most common standardized language used to access databases and is defined by the ANSI/ISO SQL Standard.

SYSTEM INTRODUCTION

➤ Introduction:

In a current era of automated systems with it being either software or hardware, it's not advisable to be using a manual system. Hostels without a management system are usually done manually. Registration forms verification to other data-saving processes are done manually and most times, they are written on paper. Thus a lot of repetitions can be avoided with an automated system.

This system is designed in favour of the hostel management which helps them to save the records of the students about their rooms and other things. It helps them from the manual work from which it is very difficult to find the record of the students and the mess bills of the students, and the information of about those ones who had left the hostel years before. This system gives an idea about how student and fee details, room allocation, and mess expenditure are maintained in a better way. The hostel management system will also contain specialties like how many students are in a room, free rooms, or space available. The admin has a unique identity for each member as well as student details.

➤ **Project overview:**

Hostel Management System is designed for better interaction between admin and users. Hostel Management System handles all the requirements for easy Hostel Management. This software will help the Hostel to structuralize the activities and maintain data transparency where needed and properly store data for regular operations and future analysis. This is a free Hostel Management Script that is developed in PHP with MYSQL database. This is a hostel management software, it has admin and user roles. Admin has all the privileges to manage courses, rooms, student registration, manage students, and user access logs. Users have options to manage their profile, book hostels, manage rooms, etc.

Hostel Management Script has the following features:

- Dashboard
- Admin, User login
- Admin panel
- Dashboard
- Manage Courses
- Rooms
- Student Registration
- Manage Students
- User Access Logs
- User Panel
- Book Hostel
- Room Details
- My Profile
- Access Log
- Change Password

➤ **EXISTING SYSTEM:**

The existing system is manual based and need lot of efforts and consume enough time. In the existing system we can apply for the hostels online but the allotment processes are done manually. It may lead to corruption in the allocation process as well as hostel fee calculation. The existing system does not deals with mess calculation and complaint registration.

DISADVANTAGES:

- More human power.
- More strength and strain of manual labour needed.
- Repetition of the same procedure.
- Low security.
- Data redundancy.
- Difficulty to handle.
- Difficulty updating data.
- Record keeping is difficult.
- Backup data can be easily generated.

➤ **Project objective:**

As the name specifies “HOSTEL MANAGEMENT SYSTEM” is software developed for managing various activities in the hostel.

The number of educational institutions has been rapidly increasing in recent years.

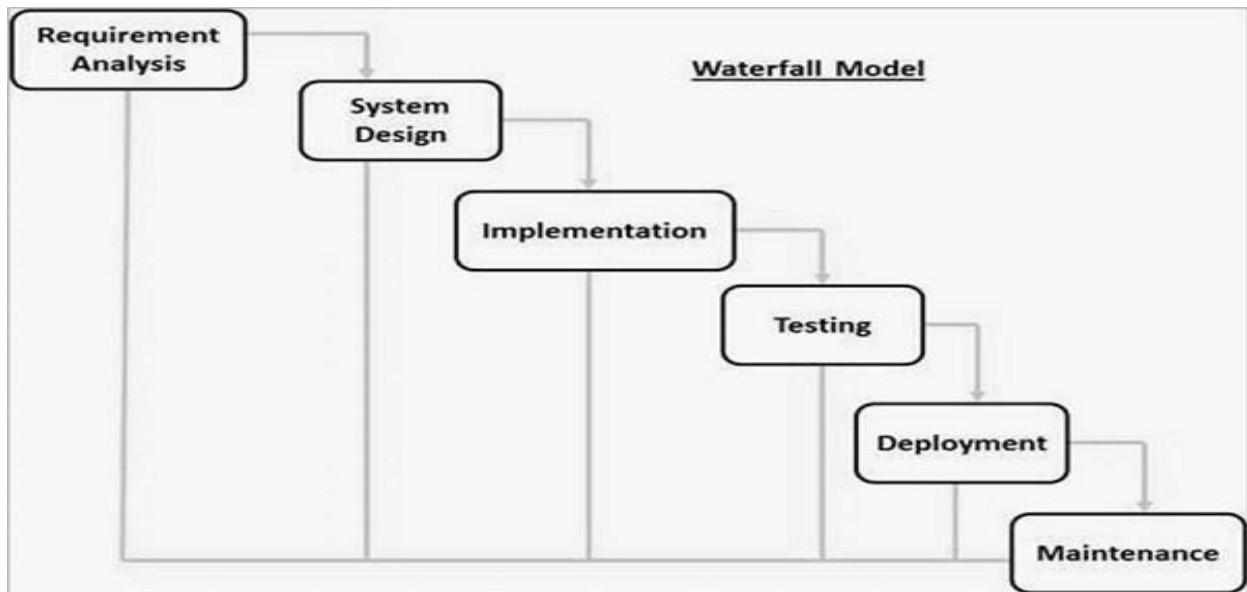
Thereby the number of hostels is also increasing for the accommodation of the students studying in this institution. As a result, the person in charge of the hostel is under a lot of stress, and software’s are not usually used in this context.

This particular project deals with the problems of managing a hostel and avoids the problems which occur when carried out manually. Identification of the drawbacks of the existing system leads to the designing of a computerized system that will be compatible with the existing system with system Which is more user-friendly and more GUI oriented.

We can improve the efficiency of the system, thus overcoming the drawbacks of the existing system.

- Less human error
- manual labour can be reduced
- High security
- Data redundancy can be avoided to some extent
- Data consistency
- Easy to handle
- Easy data updating
- Easy record keeping
- Backup data can be easily generated

➤ Methodology Development Model:



The sequential phases in Waterfall model are –

Requirement Gathering and analysis – All possible requirements of the system to be developed are captured in this phase and documented in a requirement specification document.

- **System Design** – The requirement specifications from first phase are studied in this phase and the system design is prepared. This system design helps in specifying hardware and system requirements and helps in defining the overall system architecture.
- **Implementation** – With inputs from the system design, the system is first developed in small programs called units, which are integrated in the next phase. Each unit is developed and tested for its functionality, which is referred to as Unit Testing.
- **Integration and Testing** – All the units developed in the implementation phase are integrated into a system after testing of each unit. Post integration the entire system is tested for any faults and failures.
- **Deployment of system** – Once the functional and non-functional testing is done; the product is deployed in the customer environment or released into the market.
- **Maintenance** – There are some issues which come up in the client environment. To fix those issues, patches are released. Also to enhance the product some better versions are released. Maintenance is done to deliver these changes in the customer environment.

SYSTEM ANALYSIS

➤ Requirement specification:

- **Minimum Hardware Requirements:**

Processor : p4/dual core

Ram : 512MB to 5GB

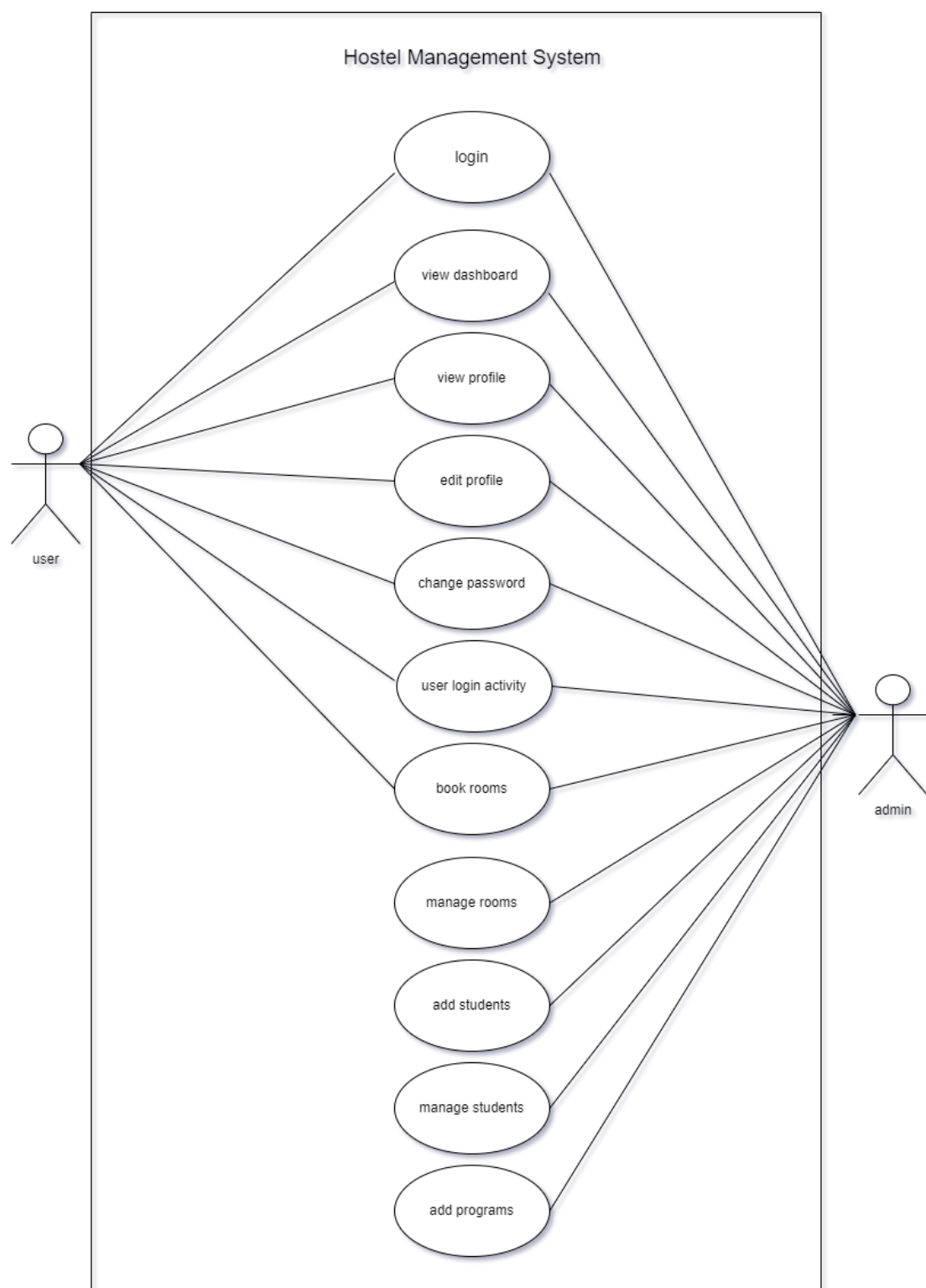
Hard disk : 3 GB

- **Minimum software requirement:**

OS : Microsoft Windows XP or later/vista/7/8/and Linux

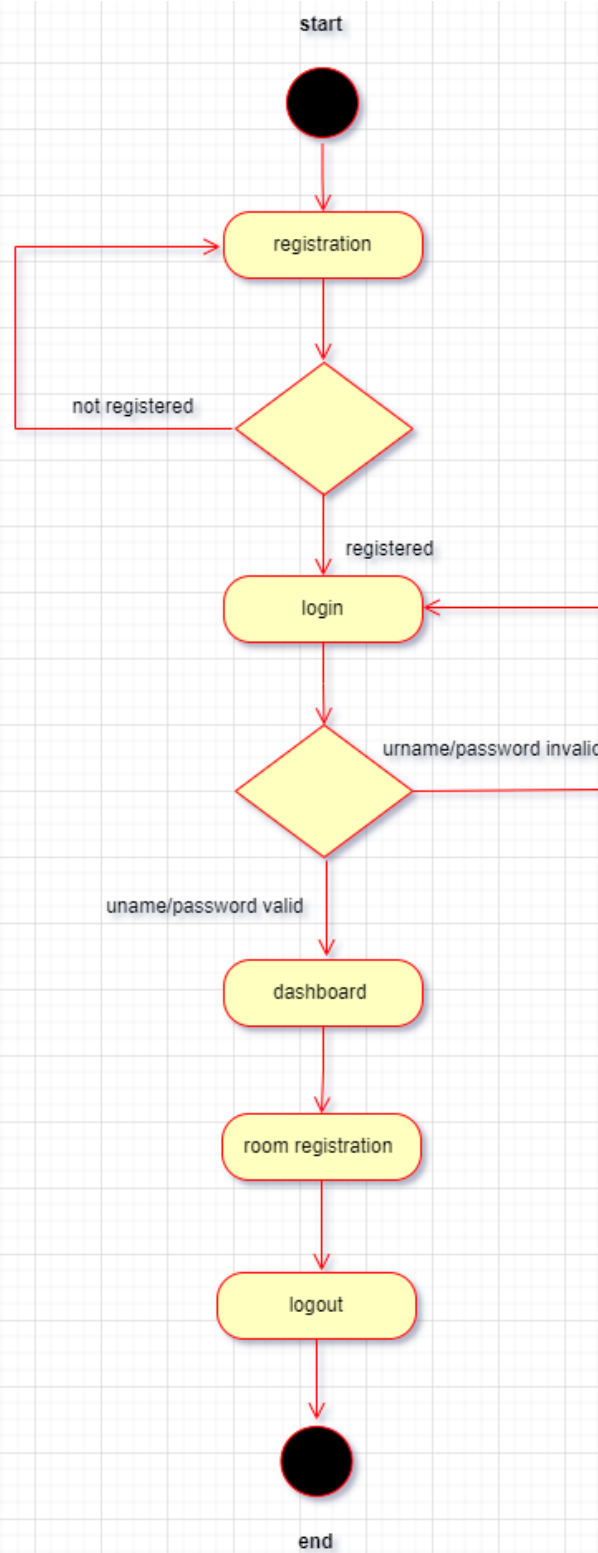
Browser : Mozilla Firefox, google chrome, opera

USECASE DIAGRAM:

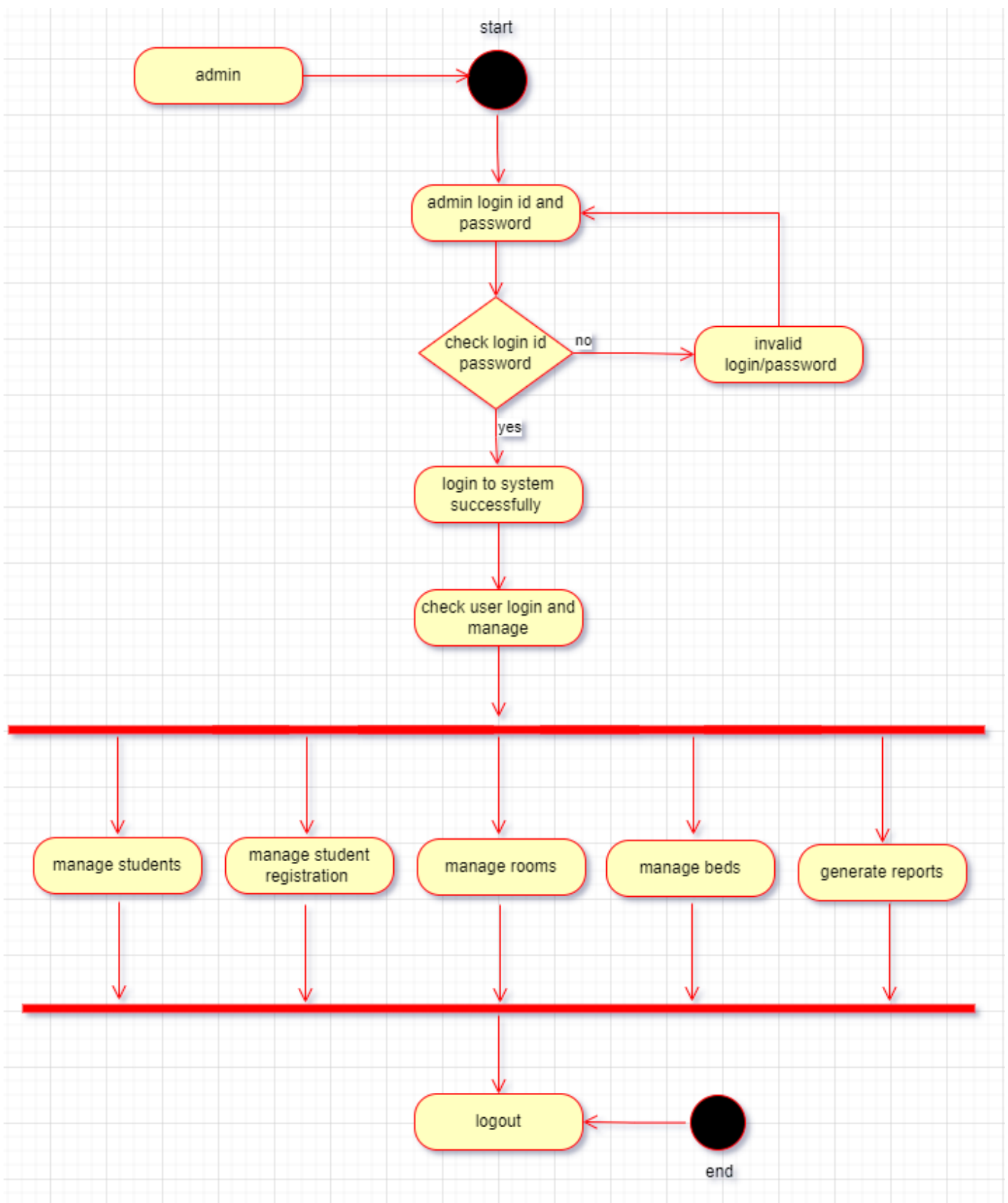


ACTIVITY DIAGRAM :

➤ User :-



➤ Admin :-



SYSTEM MODULES

➤ **Functions performed by admin users :**

- Login For Admin
- Forgot password for Admin
- Edit Profile For Admin
- Change Password For Admin
- Logout Functionality
- Dashboard for Admin User

Manage Room

- Adding New Room
- Edit the Existing Room
- View details of the Room
- Listing of all Room

Manage Bed

- Adding New Bed
- Edit the Existing Bed
- View details of the Bed
- Listing of all Bed

Manage Student

- Adding New Student
- Edit the Existing Student
- View details of the Student
- Listing of all Student
- Remove the students

Manage Student Registration

- Adding New Student Registration
- Edit the Existing Student Registration
- View details of the Student Registration
- Listing of all Student Registration

Reports of the project Hostel Management System

- Report of all Room
- Report of all Bed
- Report of all Student
- Report of all Student Registration

➤ Student Module:

The main purpose of this module is to provide all the functionality related to the student. It tracks all the information and details of the student. We have developed all types of CRUD (Create, Read, Update and Delete) operations for the student. This is a role-based module where the admin can perform each and every operation on data but the student will be able to view only his/her data, so access level restrictions have also been implemented on the project.

Features of Student Module:

- Admin can add new student records
- Admin can see the list of student details
- Only the admin can edit and update the record of the student
- Admin will be able to delete the records of the student
- Student will be able to see his profiles
- Student will be able to update his details

➤ **Room module :**

The main purpose of developing this module is to manage the room data-wise. Room is an important module in this project Hostel Management System, So all rooms will be managed by admin and students will be able to see room records.

Features of Room Module:

- Admin can manage the room
- Admin can edit/delete the room
- Admin can see the list of all room
- Student can see room

➤ **Bed Module:**

The main purpose for developing this module is for Bed management. All beds will be managed by admin and students will be able to see beds. Here students can search for availabilities of beds.

Features of Bed Module:

- Admin can manage the bed
- Admin can edit/delete the bed
- Admin can see the list of all bed

DATA DICTIONARY

❖ Admin:

Field name	Data type	constraint	Description
Id	Int(2)	Primary key	Admin id
Username	Varchar2(20)		Admin username
Email	Varchar2(20)		Admin email address
Password	Varchar2(15)		Admin password
Reg_Date	timestamp		Present timestamp
Updating_date	date		Update the date

❖ Admin logs:

Field name	Data type	constraint	Description
Id	Int(2)	Primary key	id
Admin_id	int2(10)	Primary key	Admin id
ip	int(20)	Primary key	Admin's ip address
Loginin_time	timestamp		time

❖ Courses:

Field name	Data type	constraint	Description
Id	Int(2)	Primary key	Admin id
Course_code	Varchar2(10)		Courses Code number
Courses_sn	Varchar2(10)		Short name of courses
Courses_fn	Varchar2(20)		Full name of courses

❖ Registration :

Field name	Data type	constraint	Description
Id	Int(2)	Primary key	id
Room_no	Int2(3)	Primary key	Room number
Seater	Int2(8)	Primary key	Number of beds
Fees	Int2(10)	Primary key	Fees
Food_status	Int2(5)	Primary key	Food status of users
Stay_from	date		date
Duration	Varchar2(10)		Duration of user staying
Course	Varchar2(50)		Programs
Reg_no	Int(2)	Primary key	Registration number
First_name	Varchar2(10)		First Name
Middle_name	Varchar2(10)		Middle name
Last_name	Varchar2(10)		Surname
gender	Varchar2(8)		gender
Contact_no	Int(10)	Primary key	Contact number
Email_id	Varchar2(20)		Email address
Egy_contact_no	Int(10)	Primary key	Emergency number
Guardian_name	Varchar2(20)		Guardian name
Guardian_relation	Varchar2(10)		Relation with Guardian
Guardian_contact_no	Int(10)	Primary key	Guardian number
Pmt_address	Varchar2(50)		Permanent address
Pmt_city	Varchar2(20)		city where you live
Pmt_state	Varchar2(20)		Permanent state
Pincode	Int(6)	Primary key	Pin code
Poasting_date	date		Date when you register

❖ Rooms:

Field name	Data type	constraint	Description
Id	Int(2)	Primary key	id
seater	Int2(8)	Primary key	Number of beds
Room_no	Int2(3)	Primary key	Room number
Fees	Int2(10)	Primary key	Fees
Poasting_date	date		Date when you register

❖ States:

Field name	Data type	constraint	Description
Id	Int(2)	Primary key	id
State	Varchar2(20)		Permanent state

❖ User logs:

Field name	Data type	constraint	Description
Id	Int(2)	Primary key	id
user_id	int2(5)	Primary key	user id
User_email	Varchar2(20)		User Email address
User_ip	int(20)	Primary key	user's ip address
city	Varchar2(20)		User's city
country	Varchar2(20)		User's country
Loginin_time	timestamp		time

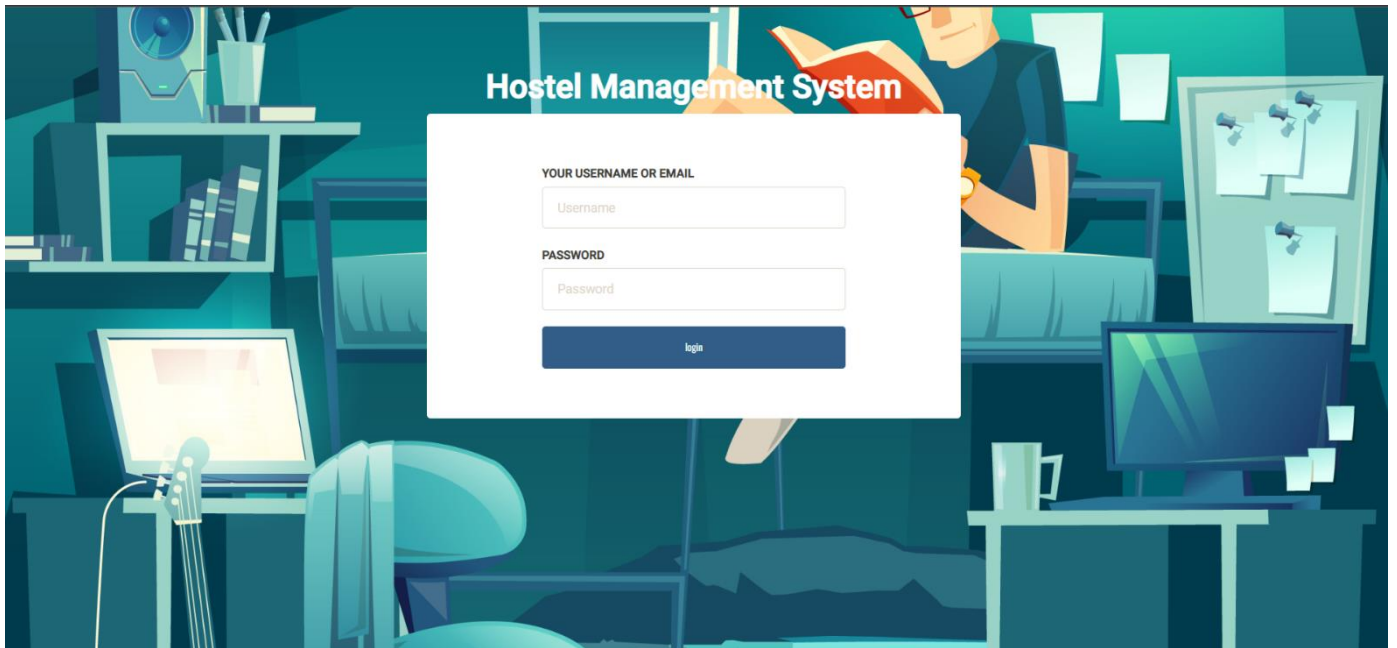
❖ User registration:

Field name	Data type	constraint	Description
Id	Int(2)	Primary key	id
reg_no	Int2(2)	Primary key	User's registration no.
First_name	Varchar2(10)		User's First Name
Middle_name	Varchar2(10)		User's Middle name
Last_name	Varchar2(10)		User's Surname
gender	Varchar2(8)		gender
Contact_no	Int(10)	Primary key	Contact number
Email_id	Varchar2(20)		Email address
contact_no	Int(10)	Primary key	Contact number
password	Varchar2(20)		User's password
Reg_date	timestamp		Date/time of registration
Updation_date	date		Date when updated

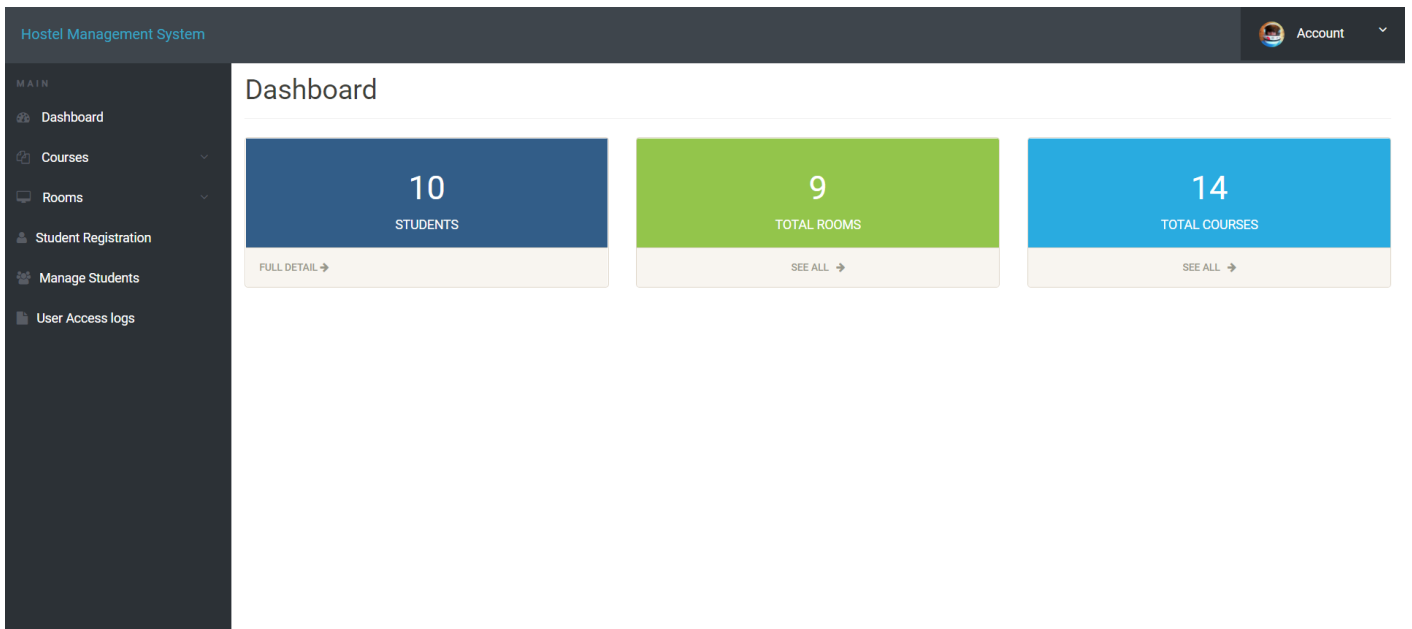
SCREEN LAYOUT

➤ Admin screenshots: -

Login page:



Admin's Dashboard:



List of registered students:

These are the students who have registered and booked their rooms

Hostel Management System		Account	
MAIN			
Dashboard			
Courses			
Rooms			
Student Registration			
Manage Students			
User Access logs			

Manage Registered Students

ALL ROOM DETAILS

Show 10 entries

Search:

Sno.	Student Name	Reg no	Contact no	room no	seater	Staying From	Action
1	dev jayeshkumar patel	1	923456789	102	2	2022-04-11	edit delete
2	om chandravadankumar patel	2	998765432	102	2	2022-04-13	edit delete
3	sneh pravinkumar Goswami	3	9999912111	100	1	2022-04-11	edit delete
4	rahul vinay kanani	4	9999878786	107	1	2022-04-27	edit delete
5	khushi nikhilkumar patel	5	8787544221	102	2	2022-04-15	edit delete
6	prinal sanjaykumar Chokshi	6	8787990975	102	2	2022-04-15	edit delete
7	kishan pravinkumar pipalya	7	9999878665	103	3	2022-04-13	edit delete
8	harsh sanjaypipalya	8	878636532	103	3	2022-04-16	edit delete
9	dishank kamleshkanani	9	7776754333	103	3	2022-04-20	edit delete
10	krima jayeshkumar patel	10	123556745	107	1	2022-04-19	edit delete
Sno.	Student Name	Reg no	Contact no	Room no	seater	Staying From	Action

Showing 1 to 10 of 10 entries

PREVIOUS 1 NEXT

Number of rooms available:

Here is a list of available rooms, along with the number of beds and room costs.

Hostel Management System		Account	
MAIN			
Dashboard			
Courses			
Rooms			
Student Registration			
Manage Students			
User Access logs			

Manage Rooms

ALL ROOM DETAILS

Show 10 entries

Search:

Sno.	seater	Room No.	Fees (PM)	Posting Date	Action
1	1	100	8000	2022-04-11 23:09:23	edit delete
2	2	102	7000	2022-04-11 23:09:40	edit delete
3	3	103	6000	2022-04-11 23:09:55	edit delete
4	4	104	4000	2022-04-11 23:10:11	edit delete
5	5	105	6000	2022-04-11 23:10:24	edit delete
6	5	106	6000	2022-04-11 23:10:36	edit delete
7	1	107	8000	2022-04-11 23:12:08	edit delete
8	5	108	8000	2022-04-11 23:12:34	edit delete
9	3	109	6000	2022-04-11 23:12:51	edit delete
Sno.	seater	Room No.	Fees (PM)	Posting Date	Action

Showing 1 to 9 of 9 entries

PREVIOUS 1 NEXT

List of programs:

This may assist students/users to choose their room partner through available program

Hostel Management System

Account

MAIN

Dashboard

Courses

Rooms

Student Registration

Manage Students

User Access logs

Manage Course

ALL COURSES DETAILS

Show 10 entries

Search:

Sno.	Course Code	Course Name(Short)	Course Name(Full)	Reg Date	Action
1	CA113	BCA	BACHELOR IN COMPUTER APPLICATION	2022-04-11 13:36:48	✎ ✕
2	CA111	MCA	MASTER IN COMPUTER APPLICATION	2022-04-11 13:37:51	✎ ✕
3	CA114	BSC IT	BACHELOR IN SCIENCE INFORMATION TECHNOLOGY	2022-04-11 13:39:10	✎ ✕
4	CA117	MSC IT	MASTER IN SCIENCE INFORMATION TECHNOLOGY	2022-04-11 13:39:29	✎ ✕
5	MH111	BBC	BACHELOR IN BUSINESS ADMINISTRATION	2022-04-12 15:14:24	✎ ✕
6	MH112	MBA	MASTER IN BUSINESS ADMINISTRATION	2022-04-12 15:14:51	✎ ✕
7	BA111	BA	BACHELOR OF ART	2022-04-12 15:16:12	✎ ✕
8	BA112	MA	MASTER OF ARTS	2022-04-12 15:16:30	✎ ✕
9	BM111	BBM	BACHELOR IN BUSINESS MANAGEMENT	2022-04-12 15:18:13	✎ ✕
10	BM112	MBM	MASTER IN BUSINESS MANAGEMENT	2022-04-12 15:18:50	✎ ✕
Sl No	Course Code	Course Name(Short)	Course Name(Full)	Regd Date	Action

Showing 1 to 10 of 14 entries

PREVIOUS

1

2

NEXT

Students registration form :

Hostel Management System

Account

MAIN

Dashboard

Courses

Rooms

Student Registration

Manage Students

User Access logs

Registration

FILL ALL INFO

Room Related info

Room no.

Select Room

seater

Fees Per Month

Food Status

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

Stay From

dd-mm-yyyy

Duration

Select Duration in Month

Personal info

course

Select Course

Registration No :

First Name :

Student Name :

Hostel Management System

Account

MAIN

Dashboard
Courses
Rooms
Student Registration
Manage Students
User Access logs

Gender :

Select Gender

Contact No :

Email id :

Emergency Contact:

Guardian Name :

Guardian Relation :

Guardian Contact no :

Correspondence Address

Address :

City :

State

Select State

Pincode :

Access log:

These are the specifics details on how many times the users logged in.

Hostel Management System

Account

MAIN

Dashboard
Courses
Rooms
Student Registration
Manage Students
User Access logs

Access Log

ALL COURSES DETAILS

Show 10 entries

Search:

Sno.	User Id	User Email / Reg No.	IP	City	Country	Login Time
1	3	10806121	1			2022-04-11 20:26:45
2	7	dj@gmail.com	1			2022-04-11 13:58:42
3	7	dj@gmail.com	1			2022-04-11 14:07:19
4	7	dj@gmail.com	1			2022-04-11 14:12:54
5	7	dj@gmail.com	1			2022-04-11 14:19:56
6	7	dj@gmail.com	1			2022-04-11 14:30:46
7	7	dj@gmail.com	1			2022-04-11 14:34:58
8	7	dj@gmail.com	1			2022-04-11 21:08:25
9	7	dj@gmail.com	1			2022-04-11 21:34:34
10	7	dj@gmail.com	1			2022-04-11 22:21:45
Sno.	User Id	User Email / Reg No.	IP	City	Country	Login Time

Showing 1 to 10 of 12 entries

PREVIOUS
1
2
NEXT

➤ Students registration : -

This is the screen where students/users create their user account, as well as fill out other account-related information.

The screenshot shows the 'Student Registration' page of the 'Hostel Management System'. On the left is a dark sidebar with a 'MAIN' header and three menu items: 'User Registration' (active), 'User Login', and 'Admin Login'. The main content area has a title 'Student Registration' and a form titled 'FILL ALL INFO'. The form contains the following fields: 'Registration No' (empty), 'First Name' (empty), 'Middle Name' (empty), 'Last Name' (empty), 'Gender' (dropdown menu showing 'Select Gender'), 'Contact No' (empty), 'Email Id' (empty), 'Password' (empty), and 'Confirm Password' (empty). At the bottom right of the form are two buttons: 'Reset' and 'Register'.

Assume you've created a new user named DARSH and set his user id and password.

This screenshot shows the same 'Student Registration' form, but with sample data entered. The 'FILL ALL INFO' section contains: 'Registration No' (11), 'First Name' (Darsh), 'Middle Name' (Sanjay Bhal), 'Last Name' (Patel), 'Gender' (Male), 'Contact No' (8160770839), 'Email Id' (darsh@gmail.com), 'Password' (masked with four dots), and 'Confirm Password' (masked with four dots). The 'Reset' and 'Register' buttons remain at the bottom right.

➤ User screenshots: -

User login:

This is the screen where only registered users can log in using their id and password.

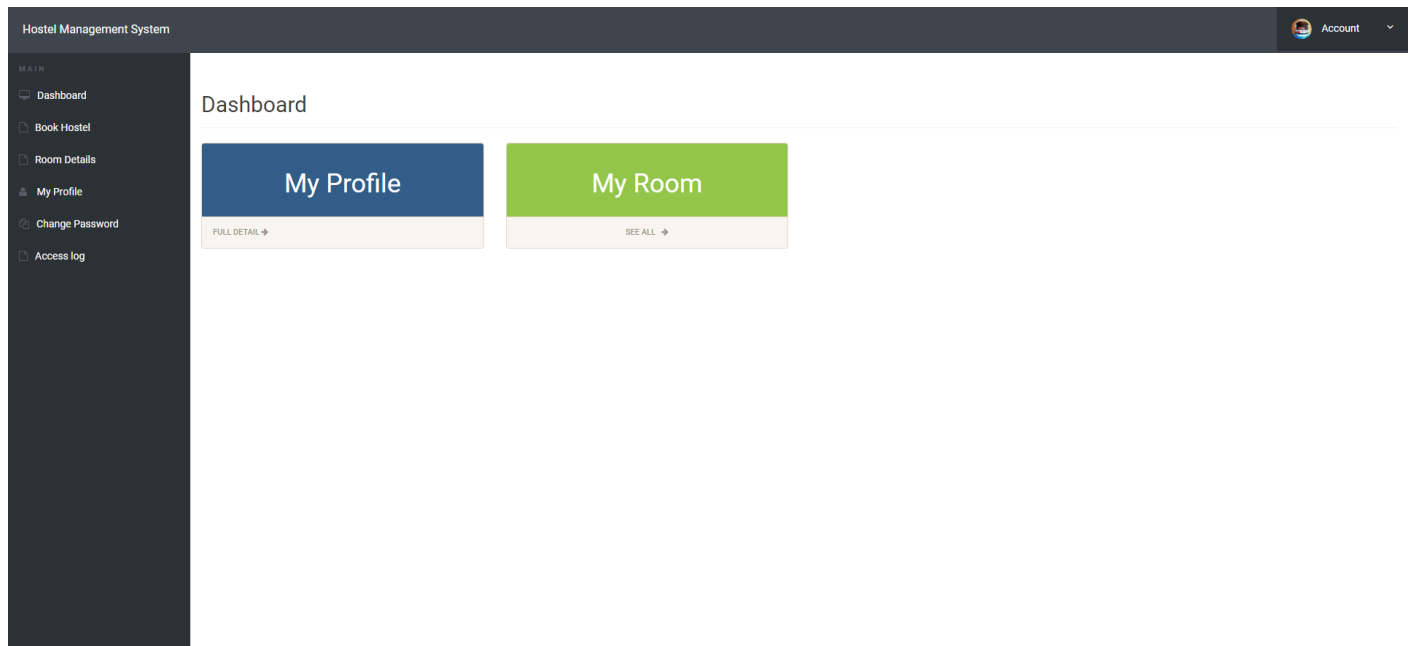
The screenshot shows the 'User Login' page of the 'Hostel Management System'. On the left is a dark sidebar with a 'MAIN' menu containing 'User Registration', 'User Login', and 'Admin Login'. The main content area has a title 'User Login' and a login form. The form includes two input fields: 'EMAIL / REGISTRATION NUMBER' with the placeholder 'Email / Registration Number', and 'PASSWORD' with the placeholder 'Password'. Below these fields is a blue 'login' button. At the bottom of the form is a link for 'Forgot password?'.

Now the user name called DARSH is entering this email and password which is created in students' registration form

This screenshot shows the same 'User Login' page, but with the login credentials entered. The 'EMAIL / REGISTRATION NUMBER' field now contains 'darsh@gmail.com' and the 'PASSWORD' field contains four dots '....'. The 'login' button and the 'Forgot password?' link remain visible at the bottom of the form.

User's dashboard:

This is the user's dashboard, where he can view his profile, reserve a room, and change his password.



User's profile:

here is the profile of the user's name called DARSH which he filled in the students registration form and he can also update his profile anytime he wants.

A screenshot of the 'Darsh's Profile' form within the 'Hostel Management System'. The header and sidebar are identical to the dashboard view. The main content area is titled 'Darsh's Profile' and contains a form with a 'LAST UPDATION DATE:' header. The form fields are: 'Registration No:' (11), 'First Name:' (Darsh), 'Middle Name:' (Sanjay Bhal), 'Last Name:' (Patel), 'Gender:' (male, with a dropdown arrow), 'Contact No:' (8160770839), and 'Email id:' (darsh@gmail.com). An 'Update Profile' button is located at the bottom right of the form.

Book rooms:

After clicking on book hostel, the page will prompt you to fill up the following information like: number of beds, room number, food status, stay from , programme name, emergency contact number, guardian name, relation, and phone number, and lastly, his permanent address.

Hostel Management System

Account

MAIN

Dashboard

Book Hostel

Room Details

My Profile

Change Password

Access log

Registration

FILL ALL INFO

Room Related info

Room no.

109

All Seats are Available

seater

3

Fees Per Month

6000

Food Status

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

Stay From

13-04-2022

Duration

6

Personal info

course

MASTERS IN EDUCATION (M.ED)

Registration No :

11

First Name :

Darsh

Hostel Management System

Account

MAIN

Dashboard

Book Hostel

Room Details

My Profile

Change Password

Access log

Gender :

male

Contact No :

8160770839

Email id :

darsh@gmail.com

Emergency Contact:

816077839

Guardian Name :

Devkumar

Guardian Relation :

grandfather

Guardian Contact no :

816077839

Correspondence Address

Address :

23,avadhut society metpur road Khambhat

City :

Anand

State

Gujarat

Pincode :

388620

Permanent Address

Permanent Address same as Correspondence address : ☒

Address :

23,avadhut society metpur road Khambhat

City :

Anand

State

Gujarat

Pincode :

388620

Cancel

Register

Reset password :

This page allows the user to change his password by entering his previous one.

Hostel Management System

Account

MAIN

Dashboard

Book Hostel

Room Details

My Profile

Change Password

Access log

Change Password

LAST UPDATION DATE:

old Password

New Password

Confirm Password


Cancel

Change Password

Users access logs:

This page displays how many times the user has logged in and at what time; in other words, it gives the user's login history.

Hostel Management System

 Account

MAIN

Dashboard

Book Hostel

Room Details

My Profile

Change Password

Access log

Access Log

ALL COURSES DETAILS

Show 10 entries

Search:

Sno.	User Id	User Email	IP	City	Country	Login Time
1	18	darsh@gmail.com	::1			2022-04-12 16:17:30
Sno.	User Id	User Email	IP	City	Country	Login Time

Showing 1 to 1 of 1 entries


PREVIOUS

1

NEXT

Logout button :

Hostel Management System

 Account

MAIN

Dashboard

Book Hostel

Room Details

My Profile

Change Password

Access log

Dashboard

My Profile

FULL DETAIL

My Room

SEE ALL

My Account

Logout

REFERENCES

➤ **Website referred:**

- ❖ www.w3schools.com
- ❖ www.getbootstrap.com
- ❖ www.tutorialspoint.com
- ❖ [Codewithharry on YouTube](#)

