

# Hostel Allotment System

## Fronted Documentation

Languages used- PHP, MySQL, HTML,CSS, Javascript

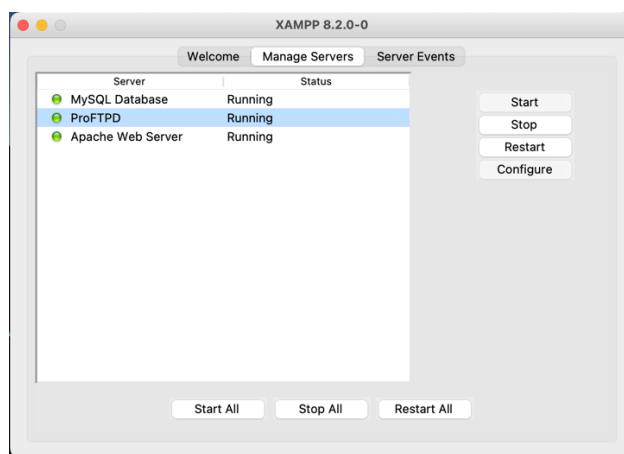
Software requirements- PHP, MySQL ,Apache, and PHPMyAdmin

### Setup Required-(for MacOS)

1. Download and install XAMPP(XAMPP is a very easy to install Apache Distribution for Linux, Windows, and Mac OS X. The package includes the Apache web server, MySQL, PHP, Perl, a FTP server and phpMyAdmin.)  
Link: <https://sourceforge.net/projects/xampp/>
2. Download and extract the zip file named Project\_11\_2020B2A71611P and then copy the folder named Hostel\_allocation\_project and go to finder->XAMPP->htdocs and paste that folder here.



3. Then start the servers by clicking start All button.



4. Now go to browser and type localhost , you will see this kind of page.



### Welcome to XAMPP for OS X 8.2.0

You have successfully installed XAMPP on this system! Now you can start using Apache, MariaDB, PHP and other components. You can find more info in the [FAQs](#) section or check the [HOW-TO Guides](#) for getting started with PHP applications.

XAMPP is meant only for development purposes. It has certain configuration settings that make it easy to develop locally but that are insecure if you want to have your installation accessible to others.

Start the XAMPP Control Panel to check the server status.

### Community

XAMPP has been around for more than 10 years – there is a huge community behind it. You can get involved by joining our [Forums](#), liking us on [Facebook](#), or following our exploits on [Twitter](#).

5. Then click on phpMyAdmin , you will get this window:

6. Now click New to create a database  
 7. Give the name of database as **hostel\_db**  
 8. Go to import -> choose file and select the file named createtables.sql and then click import. (This will add tables to the database and some data into the studentwing table)

9. You will see that all the tables have been added to the database.

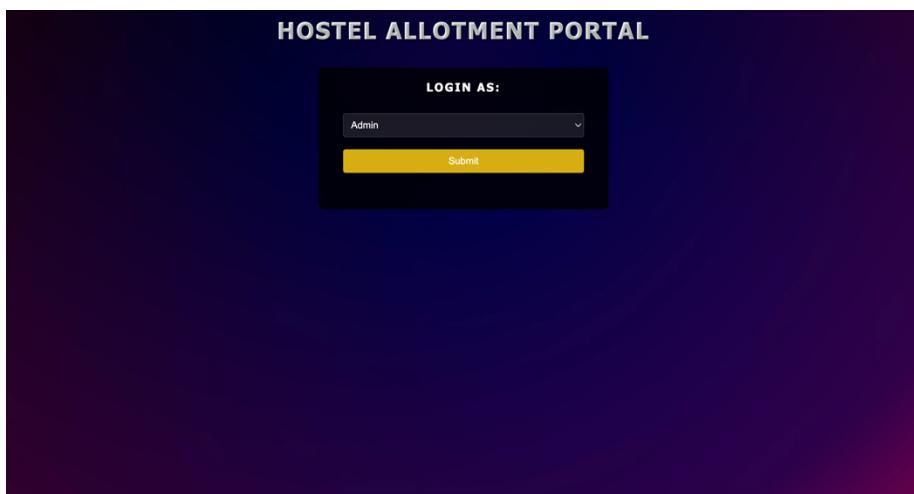
The screenshot shows the MySQL Workbench interface with the following details:

- Structure**: Shows the database schema with tables: Student, Hostel, HostelAllocation, HostelCount, and AdminUsers.
- SQL**: The SQL tab displays the executed queries:
  - Import has been successfully finished. 7 queries executed. (createables.sql)
  - MySQL returned an empty result set (i.e. zero rows). (Query took 0.0004 seconds)
  - CREATE TABLE Student ( student\_id VARCHAR(20) NOT NULL PRIMARY KEY, student\_name VARCHAR(255), student\_wingId INT, Year\_of\_study INT, preference\_of\_hostel VARCHAR(255) );
  - CREATE TABLE HostelAllocation ( Hostel\_name VARCHAR(255), Room\_no INT, hostel\_wingId INT, student\_id VARCHAR(20) NOT NULL, student\_name VARCHAR(255), Year\_of\_study INT, PRIMARY KEY (Room\_no, student\_id), FOREIGN KEY (student\_id) REFERENCES Student(student\_id) );
  - CREATE TABLE Hostel ( Hostel\_name VARCHAR(255), Room\_no INT, hostel\_wingId INT, no\_of\_unoccupied\_beds INT, PRIMARY KEY (Hostel\_name, hostel\_wingId, Room\_no) );
  - CREATE TABLE Count ( Hostel\_name VARCHAR(255) PRIMARY KEY, count\_of\_rooms\_occupied INT );
- Search**: Shows the search history.
- Query**: Shows the executed queries.
- Export**: Options for exporting data.
- Import**: Options for importing data.
- Operations**: Options for managing the database.
- Privileges**: Options for managing user privileges.
- Routines**: Options for managing stored routines.
- Events**: Options for managing scheduled events.
- Triggers**: Options for managing triggers.
- Tracking**: Options for tracking changes.
- Designer**: Options for designing database objects.
- Central columns**: Options for managing central columns.

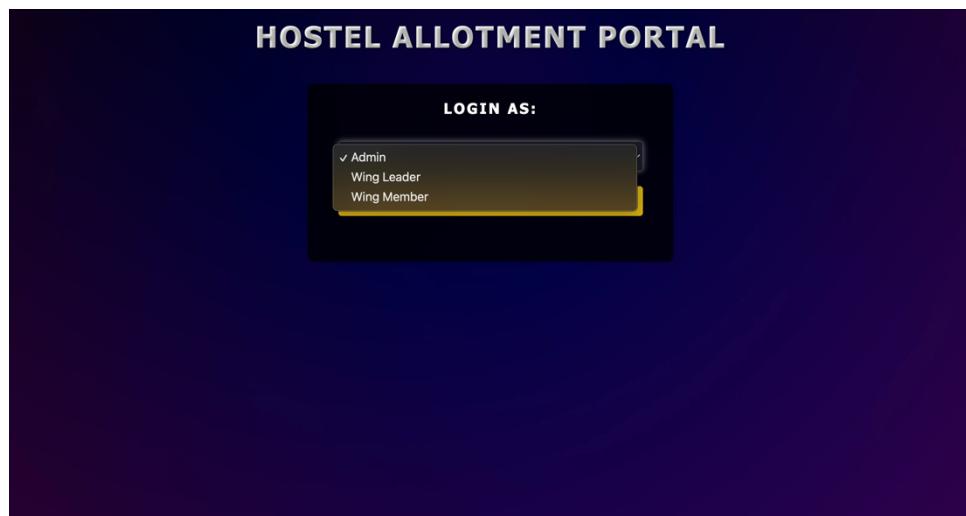
The status bar at the bottom indicates "36 rows inserted. (Query took 0.0005 seconds)".

Executing-

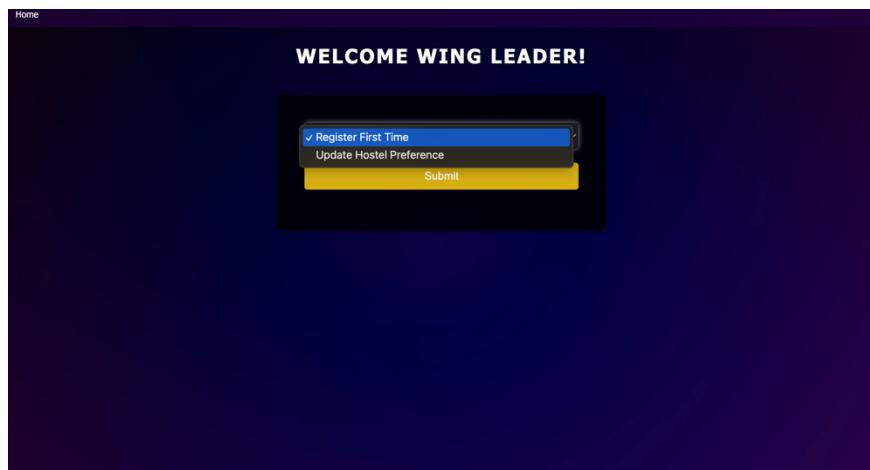
1. Now in a new tab type localhost/Hostel\_allocation\_project/login.php (you will see this interface)



2. There we have 3 options Login as - Admin, WingLeader, WingMember



3. By logging in as wing leader we will get to this page where we will get two options -
  - Register First Time
  - Update Hostel Preference



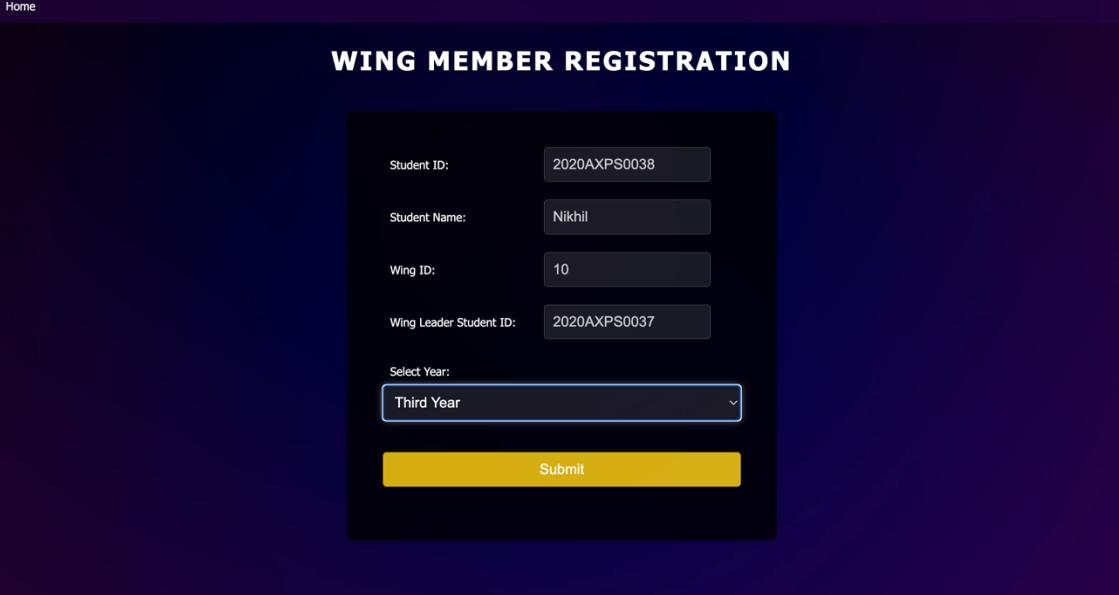
4. If you are to register as wing leader then select register first time and click submit button.  
 You will get a interface where student has to enter his student Id, name, select year of year and according to the selected year two hostels will be shown through dropdown option(We have kept hostels SR and ASHOK for 1<sup>st</sup> year , RAM and BUDH for 2<sup>nd</sup> year , SHANKAR and Vyas for 3<sup>rd</sup> year and Krishna Gandhi for 4<sup>th</sup> year.  
 WingLeader can give the preference for the hostel , if the hostel preference is not available he will get a message to choose another hostel.

The screenshot shows a "WING LEADER REGISTRATION" form. It includes fields for Student ID (2020AXPS0037), Student Name (Krunal), Select Year (Third Year), and Select Preferred Hostel (SHANKAR Hostel). A yellow "Submit" button is at the bottom.

After filling all the details click submit button, if the registration is successful you will get a page displaying that registration is successful , along with that a wing id will be generated which has to be noted down for future reference so that wing members can register.



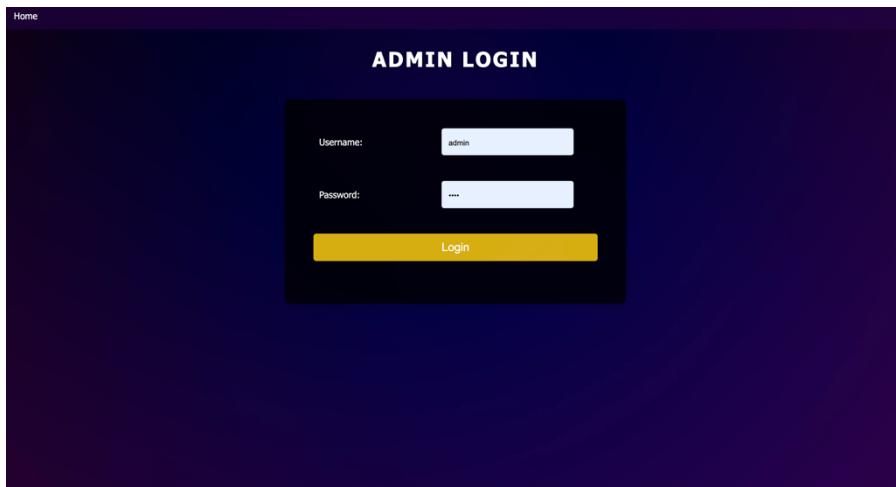
5. By clicking Home button you can go to the home page
6. **Now logging as wing member**
7. We will get a page where it is asked to fill the necessary details (make sure details are correctly filled) and then by clicking submit button that student will be added to that particular wing.



The screenshot shows a 'WING MEMBER REGISTRATION' form. It has four input fields: 'Student ID' (2020AXPS0038), 'Student Name' (Nikhil), 'Wing ID' (10), and 'Wing Leader Student ID' (2020AXPS0037). Below these is a dropdown menu labeled 'Select Year' with 'Third Year' selected. At the bottom is a yellow 'Submit' button.

### **Admin Panel**

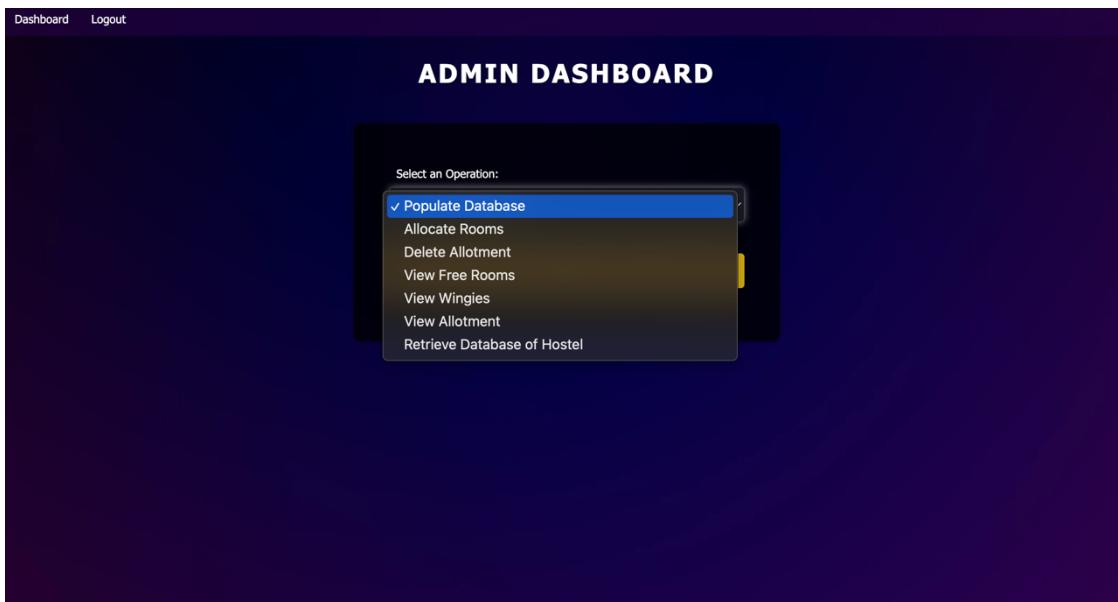
1. We can access the admin panel by selecting Admin on the home page as logging option. We will get this screen as shown-
2. Enter the username and password as '**admin**' and '**1234**' respectively to login.



The screenshot shows an 'ADMIN LOGIN' form. It has two input fields: 'Username' (admin) and 'Password' (redacted). Below the password field is a yellow 'Login' button.

3. We will get into the admin dashboard where the admin have the various options -
  - i. Populate Database - This function is used for inserting rooms into the hostels
  - ii. Allocate Rooms - This function is used to do random allocation of rooms to the students on the basis of their hostel preference and wing.
  - iii. Delete Allotment - This function is used to delete the allotment of a specific student.
  - iv. View Free Rooms - This function is used to check the available rooms in all the hostels after the random allocation

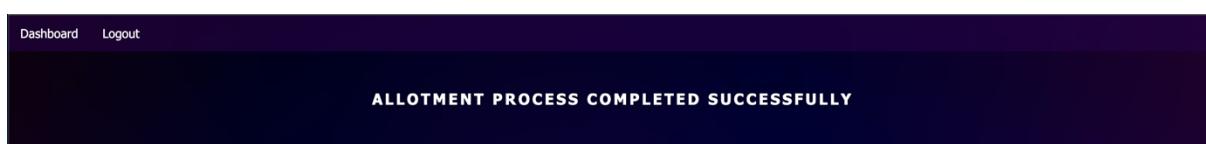
- v. View Wingies - This function is used to check the info for the students of neighbouring 8 rooms(wingies)
- vi. View Allotment - This function is used to check the allotment details of all the students in all the hostels.
- vii. Retrieve Database of hostel - This function is used to retrieve database of all students residing in a specific hostel.



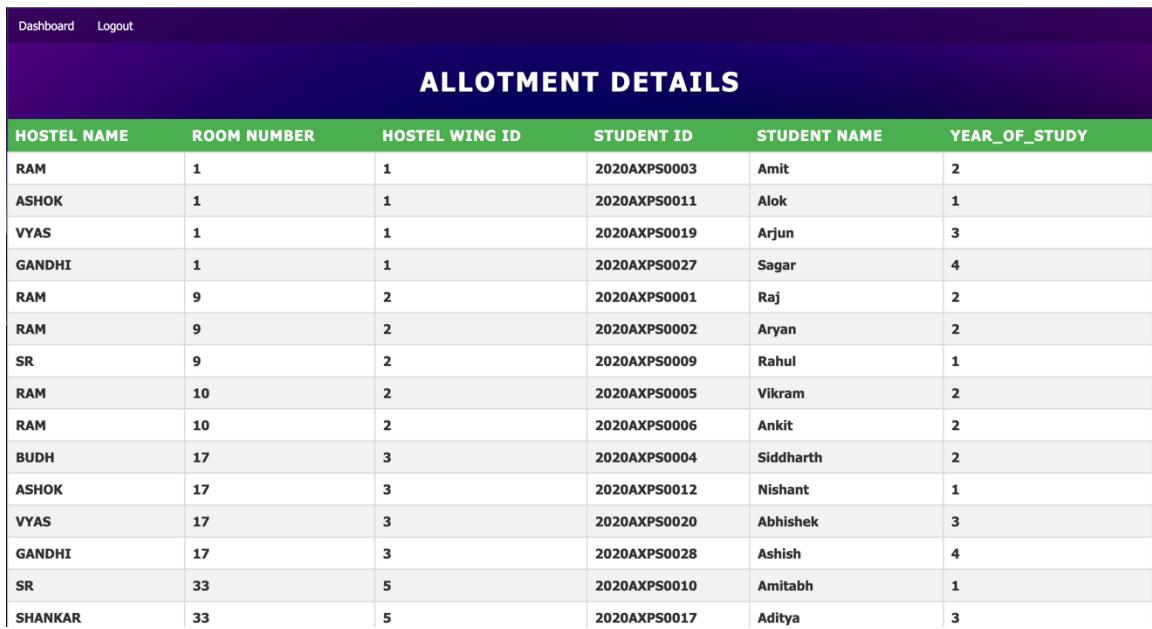
### Admin Functions-

1. When we select **Populate database** we will get this screen where the admin can select the hostel to populate with rooms. If the task is successful Congratulations message will come but if that hostel is already populated then it will print this message.

2. The admin have the options to go to admin **dashboard** and **logout**.
3. On the admin dashboard if admin selects **allocate rooms** - then upon successful allocation of rooms it will get a message stating that allocation is successful.



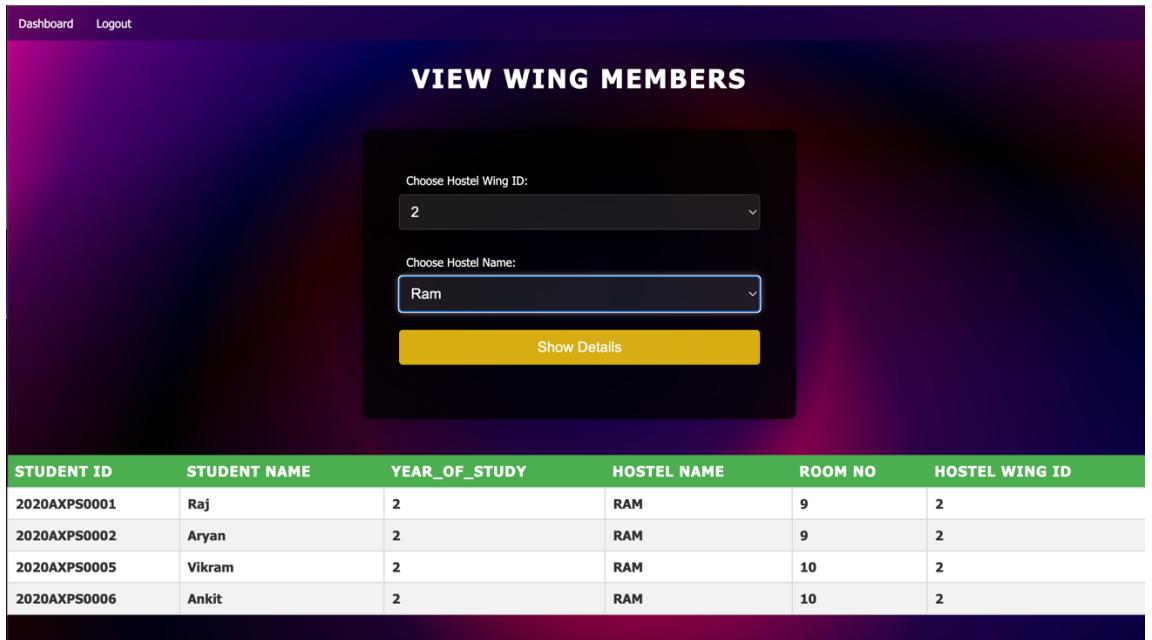
4. We can check the allotment details by clicking **view allotment**. The admin will get the details in form of table as shown-



The screenshot shows a table titled "ALLOTMENT DETAILS" with the following data:

HOSTEL NAME	ROOM NUMBER	HOSTEL WING ID	STUDENT ID	STUDENT NAME	YEAR_OF_STUDY
RAM	1	1	2020AXPS0003	Amit	2
ASHOK	1	1	2020AXPS0011	Alok	1
VYAS	1	1	2020AXPS0019	Arjun	3
GANDHI	1	1	2020AXPS0027	Sagar	4
RAM	9	2	2020AXPS0001	Raj	2
RAM	9	2	2020AXPS0002	Aryan	2
SR	9	2	2020AXPS0009	Rahul	1
RAM	10	2	2020AXPS0005	Vikram	2
RAM	10	2	2020AXPS0006	Ankit	2
BUDH	17	3	2020AXPS0004	Siddharth	2
ASHOK	17	3	2020AXPS0012	Nishant	1
VYAS	17	3	2020AXPS0020	Abhishek	3
GANDHI	17	3	2020AXPS0028	Ashish	4
SR	33	5	2020AXPS0010	Amitabh	1
SHANKAR	33	5	2020AXPS0017	Aditya	3

5. Admin can **view wingies** -info for the students of neighbouring 8 rooms- This type of page will come where by choosing the Hostel wing Id and Hostel name , admin can get the details in a tabular form as shown-



The screenshot shows a modal window titled "VIEW WING MEMBERS" with the following fields:

- Choose Hostel Wing ID: 2
- Choose Hostel Name: Ram
- Show Details button

Below the modal, there is a table showing student details:

STUDENT ID	STUDENT NAME	YEAR_OF_STUDY	HOSTEL NAME	ROOM NO	HOSTEL WING ID
2020AXPS0001	Raj	2	RAM	9	2
2020AXPS0002	Aryan	2	RAM	9	2
2020AXPS0005	Vikram	2	RAM	10	2
2020AXPS0006	Ankit	2	RAM	10	2

6. Similarly we can check the free rooms available in the hostels by selecting **view free rooms** options on the admin dashboard - A list will be displayed as shown -

LIST OF FREE ROOMS	
HOSTEL NAME	ROOM NO
ASHOK	1
ASHOK	2
ASHOK	3
ASHOK	4
ASHOK	5
ASHOK	6
ASHOK	7
ASHOK	8
ASHOK	9
ASHOK	10
ASHOK	11
ASHOK	12
ASHOK	13
ASHOK	14
ASHOK	15
ASHOK	16

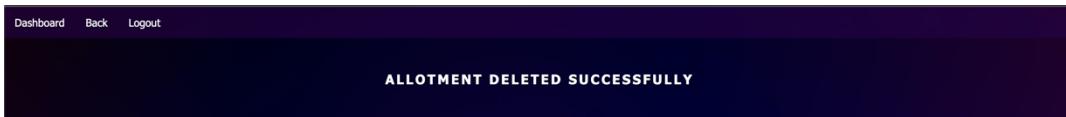
7. Admin can also retrieve database of all students residing in a specific hostel by going to the option **retrieve database of hostel**. There one can choose the specific hostel and get the details as shown-

HOSTEL WISE STUDENT DETAILS					
HOSTEL NAME	ROOM NUMBER	WING ID	STUDENT ID	STUDENT NAME	YEAR_OF_STUDY
SHANKAR	33	5	2020AXPS0017	Aditya	3
SHANKAR	33	5	2020AXPS0018	Karan	3
SHANKAR	34	5	2020AXPS0021	Sushant	3
SHANKAR	34	5	2020AXPS0022	Rajesh	3
SHANKAR	35	5	2020AXPS0033	Brijesh	3
SHANKAR	35	5	2020AXPS0034	Karn	3
SHANKAR	36	5	2020AXPS0035	Raman	3
SHANKAR	36	5	2020AXPS0036	Mohit	3

8. Admin can also delete the allotment of any student by entering his Id and room number.

DELETE ALLOTMENT	
Student ID:	2020AXPS0017
Room No:	33
<input type="button" value="Delete Allotment"/>	

→ Upon successful deletion -



→ After Deleting this allotment - we can check that student named Aditya having id 2020AXPS0017 is removed from the list

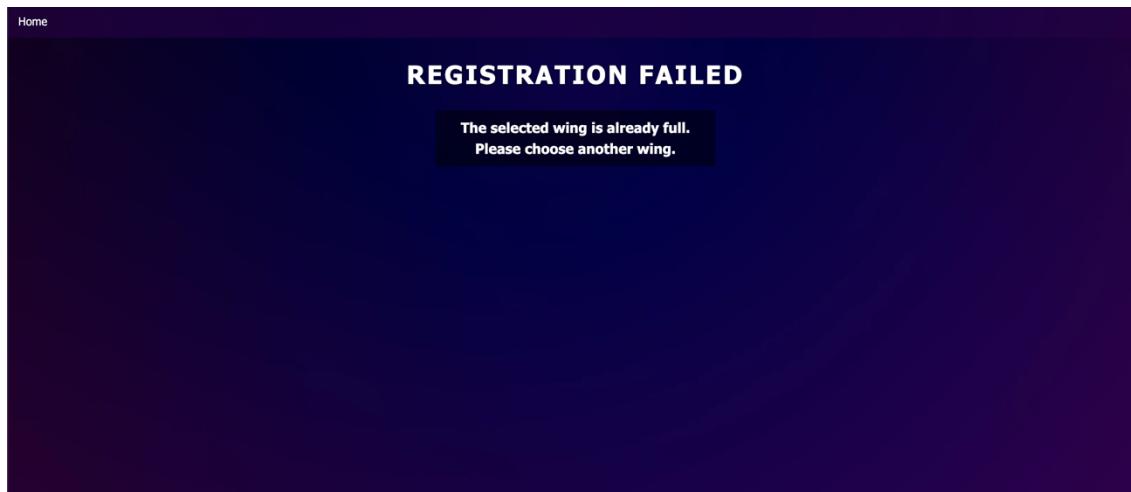
HOSTEL NAME	ROOM NUMBER	WING ID	STUDENT ID	STUDENT NAME	YEAR_OF_STUDY
SHANKAR	33	5	2020AXPS0018	Karan	3
SHANKAR	34	5	2020AXPS0021	Sushant	3
SHANKAR	34	5	2020AXPS0022	Rajesh	3
SHANKAR	35	5	2020AXPS0033	Brijesh	3
SHANKAR	35	5	2020AXPS0034	Karn	3
SHANKAR	36	5	2020AXPS0035	Raman	3
SHANKAR	36	5	2020AXPS0036	Mohit	3
SHANKAR	73	10	2020AXPS0037	Krunal	3

9. The function to **update room status** is integrated in the code of allotment and delete allotment accordingly .

One can see that the room number 33 of Shankar hostel is having 1 student while room number 34,35,36 are fully occupied(double occupancy rooms) and room number 37 is not allotted so it is unoccupied.

	Hostel_name	Room_no	hostel_wingId	no_of_unoccupied_beds
<input type="checkbox"/>	SHANKAR	31	4	2
<input type="checkbox"/>	SHANKAR	32	4	2
<input type="checkbox"/>	SHANKAR	33	5	1
<input type="checkbox"/>	SHANKAR	34	5	0
<input type="checkbox"/>	SHANKAR	35	5	0
<input type="checkbox"/>	SHANKAR	36	5	0
<input type="checkbox"/>	SHANKAR	37	5	2
<input type="checkbox"/>	SHANKAR	38	5	2

10. There is a cap of wing size of 16 students (i.e. 8 rooms per wing) so if 17<sup>th</sup> number student tries to register in that wing ,he gets a message that wing is completely filled.



Conclusion-

The project is developed using PHP with MySQL database along with HTML,CSS and javascript to make it interactive. The project deals with the overall allotment process with wide functionalities like room planner, allotment of rooms, view allotment etc.

**THANK YOU**

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