HOSTEL MANAGEMENT SYSTEM

A Project Report

submitted in partial fulfillment of the requirements

of

Track1_Applied_CC_for_Software_Development

by

POLAKALA MEENA, R180482

SHAIK SHABREEN, R180059

R.KOMALA, R180455

K BHUVANESWARI, R180083

Under the Esteemed Guidance of

Hrishikesh Mahure

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This Acknowledgement should be written by students in your own language (Do not copy and Paste)

P.MEENA

S.SHABREEN

R.KOMALA

K.BHUVANESWARI

ABSTRACT

“HOSTEL MANAGEMENT SYSTEM”

Targeted for the Hostel integrates the transaction management of the Hostel for better control and timely response. This eliminates time delay and paper transactions being marked. The warden is provided with a bettercontrol over the transactions like adding the details of new Students in the hostel,modifying the details of the students, deleting the students,viewing the students details in the Hostel. This project’s main motto is to reduce the effort of Wardens and provide better service to the students.The goal of this project is to develop a system for the computerization of the Hostel. The common transactions of the hostel includes the maintenance of mess bills, information about students in thehostel, enrolling of new students and their payments and dues etc are stored into the databases andreports are generated according to the user requirements.

TECHNOLOGIES USED FOR FRONTEND

- HTML
- CSS
- JAVASCRIPT
- BOOTSTRAP
- REACT JS

TECHNOLOGIES USED FOR BACKEND

- MYSQL
- PHP

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CHAPTER 1

INTRODUCTION

As the name specifies “HOSTEL MANAGEMENT SYSTEM” is software Developed for managing various activities in the hostel. For the past few years the number of educational institutions is increasing rapidly. Thereby the number of hostels is also increasing for the accommodation of the students studying in this institution. And hence there is a lot of strain on the person who are running the hostel and software’s are not usually used in this context. This particular project deals with the problems on managing a hostel and avoids the problems which occur when carried manually.Identification of the drawbacks of the existing system leads to the development of computerized hostel management system that will be compatible to the existing system with the system which is more users friendly and more GUI oriented.

CHAPTER 1

INTRODUCTION

1.1. Problem Statement:

Inefficient and error-prone manual processes currently dominate the management of our hostel facilities , resulting in challenges such as room allocation errors ,billing inaccuracies, and a lack of real-time information for both administrators and residents. To address these issues ,we require a modern hostel management system that automates tasks such as room allocation ,billing ,attendance tracking, and communication ,while providing robust reporting and analytics capabilities. This system should enhance effeciency ,accuracy, reduce errors, and transparency in hostel operations, ultimately improving the overall resident experiences.

1.2. Problem Definition:

The problem at hand is the inefficiency and error-prone nature of the current manual hostel management processes. These processes encompass room allocation, attendance tracking, billing, and communication, leading to operational challenges, inaccuracies, and resident dissatifaction. Our goal is to design and implement a digital hostel management system that addresses these issues by automating key tasks, ensuring data accuracy , and anhancing communication, ultimately providing a streamlined and reliable solution for managing hostel operations.

1.3. **Expected Outcomes:**

The expected outcomes for a Hostel Management System project typically include:

Efficient Reservation System: Users should be able to easily book and reserve hostel rooms online, reducing the need for manual bookings.

Room Allocation: The system should allocate rooms to guests based on their preferences and availability.

Check-In and Check-Out: Streamlined processes for guest check-in and check-out, reducing waiting times and errors.

Billing and Payment: Automated billing and online payment options for guests to settle their bills.

Room Maintenance: Tracking and scheduling maintenance tasks for hostel rooms to ensure they are in good condition.

Inventory Management: Managing hostel supplies and consumables, ensuring they are well-stocked.

Guest Records: Maintaining a database of guest information for security and management purposes.

Reporting and Analytics: Generating reports on occupancy rates, revenue, and other key metrics to aid decision-making.

CHAPTER 2

LITERATURE SURVEY

A literature survey for a Hostel management System typically involves reviewing existing research, articles, publication, and relevant documents related to hostel management systems, their features, and their impact.Here’s a simplified outline of hoe to conduct a literatures survey:

1.Define Your Research Objectives

2.Search Strategy

3.Review the Literature

4.Litetature Summaries

5.identify Research Gaps

6.Compare and Contrast

7.Citations and References

8.Synthesize Findings

9.Discuss Implications

CHAPTER 3

PROPOSED METHODOLOGY

The methodology for developing a Hostel Mangement System typically follows a stuctured and iterative approach to ensure the successful completion of the project.Her's a common methodology outline:

1.Project Initiation

2.Requirement Analysis

3.System Designing

4.Technology Selection

5.Development

6.Testing

7.Deployment

8.User Training and Docmentation

9.Pilot Testing

10.Feedback and Iteration

11.Implementation

CH,APTER 3

PROPOSED METHODOLOGY

3.1 Modules Used

HTML: HTML refers to Hyper Text markup Language HTML is used to create Webpages it uses many tags to make a webpage.so it is tag based language the tags of html are surrounded by angular bracket.It can be using wide range of colors ,objects and layouts.very useful for beginners in web designing field.

CSS: CSS is a style sheet language used for describing the look and formatting of a document written in a markup language.While most often used to style webpages and interfaces written in HTML and XHTML the language can be applied to any kind of XML document.One of the favoured features is its ability to allow the sorting of document content written **in** markup languages from document presentation written in CSS.

JAVASCRIPT:CSS is a style sheet language used for describing the look and formatting of a document written in a markup language.While most often used to style webpages and interfaces written in HTML and XHTML the language can be applied to any kind of XML document.One of the favoured features is its ability to allow the sorting of document content written in markup languages from document presentation written in CSS.

PHP:PHPTriad installs a complete working PHP/MySQL server environment on Windows platforms (9x/NT). Installs PHP, MySQL, Apache, and PHPMyAdmin.

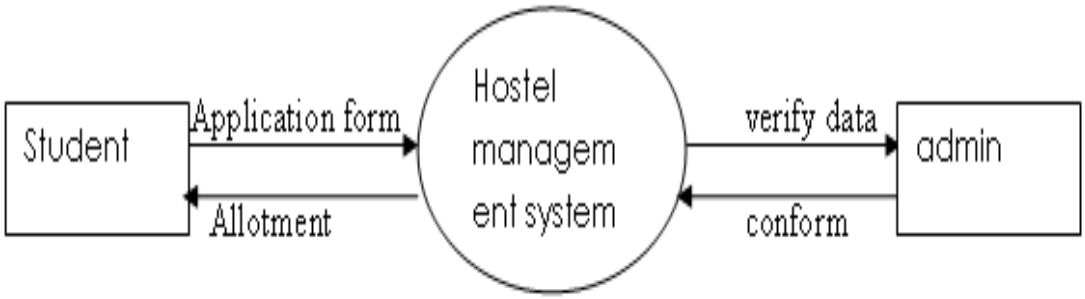
PHP is a scripting language originally designed for producing dynamic web pages. It has evolved to include a command line interface capability and can be used in standalone graphical applications. While PHP was originally created by Rasmus Lerdorf in 1995, the main implementation of PHP is now produced by The PHP Group and serves as the de facto standard for PHP as there is no forma specification. PHP is free software released under the PHP License, however it is incompatible with the GNU General Public License(GPL), due to restrictions on the usage of the term PHP. It is a widely-used general-purpose scripting language that is especially suited for web development and can be embedded into HTML. It generally runs on a web server, taking PHP code as its input and creating web pages as output. It can be deployed on most web servers and on almost every operating system and platform free of charge. PHP is installed on more than 20 million websites and 1 million web servers.

MYSQL:MYSQL is a relational database management system based on SQL(Structured Query Language).The application is used for a wide range of purposes, including data warehousing,e-commerce and loggingapplications.The most common use for MYSQL however is for the purpose of a web database.It is open-source database software, which i s supported by Oracle Company.It is fast,scalable and easy to use database management system in comparision with Microsoft SQL server and Oracle Database.It is commonly used in conjuction with PHP scripts for creating powerful and dynamic server-side or web-based enterprise applications.

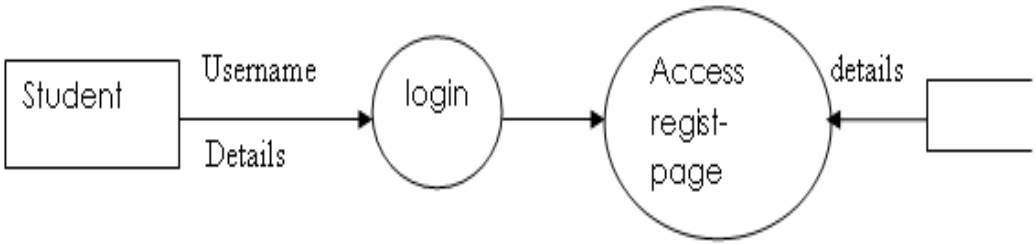
3.2 Data Flow Diagram

A Data Flow Diagram (DFD) is a graphical representation of the "flow" of data through an information system, modeling its process aspects. A DFD is often used as a preliminary step to create an overview of the system, which can later be elaborated. DFDs can also be used for the visualization of data processing (structured design).

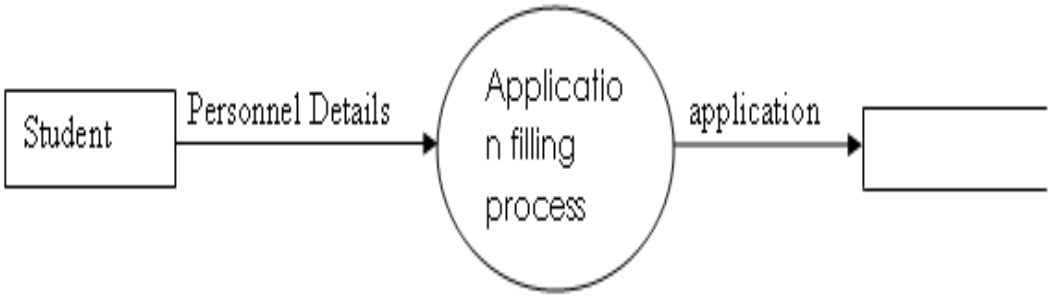
Context level DFD



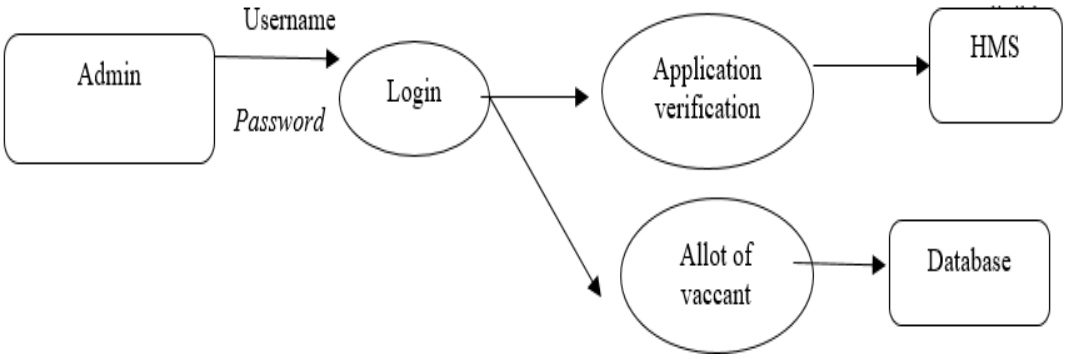
Student Module



Registration Process



Admin Module



3.3 Requirement Specification

3.3.1 Hardware Requirements:

processor – AMD A9-9420 radeon r5

Hard Disk – 314.0GB

RAM – 4GB

Internet Connection – 1.1 GHZ

3.3.2 Software Requirements:

Ubuntu 18.04.5 LTS

SqL Server 2008

XAMPP Server

Technologies-HTML ,CSS,PHP,MYSQL,BOOTSTRAP

CHAPTER 4

Implementation and Result

```
<!DOCTYPE html>

<html lang="en" dir="ltr">

<head>

<meta charset="UTF-8">

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<script type="text/javascript">

function back(){

window.location.href ="index.php";

}

function register(){

window.location.href ="mhregistration.php";

}

</script>

<?php

$errmsg="";

$name="";

$email="";
```

```
$regno="";

$phoneno="";

{

if($_SERVER["REQUEST_METHOD"]=="POST" && isset($_POST["submit"]))

$conn= mysqli_connect('localhost','root','','hms') or die("Connection

failed:" .mysqli_connect_error());

if(isset($_POST['name']) && isset($_POST['regno']) && isset($_POST['email'])

&& isset($_POST['phoneno']) && isset($_POST['password']) &&

isset($_POST['confirmpassword']) && isset($_POST['gender']) ){

$name=$_POST['name'];

$email=$_POST['email'];

$regno=$_POST['regno'];

$phoneno=$_POST['phoneno'];

$password=$_POST['password'];

$confirmpassword=$_POST['confirmpassword'];

$gender=$_POST['gender'];

$passwordregex="/^(?=.*[a-z])(?=.*[A-Z])(?=.*\d)(?=.*[@$!%*?&])[A-Za-z\d@$!

%*?&]{8,16}$/";$nameregex="/^[a-z A-Z]*$/";
```

```
if(!preg_match($nameregex, $name)){

$errmsg="*Password should be in correct format";

}

else if($password!=$confirmpassword){

$errmsg="*Password and confirm password are not same";

}

elseif (!preg_match($passwordregex, $password)) {

$errmsg="*Password must contain Minimum eight and maximum 16

characters, at least one uppercase letter, one lowercase letter, one number and one

special character";

}

else{

session_start();

$sql="INSERT INTO `users`

(`name`,`regno`,`email`,`phoneno`,`password`,`gender`,`block`)VALUES

('$name','$regno','$email','$phoneno','$password','$gender','NULL')";

$query=mysqli_query($conn,$sql);

if($query){
```

```
$errmsg= '*Entry successful';

$_SESSION['regno'] = $regno;

if( $gender=="male"){

header('Location: student\mhregistration.php');

}

else if($gender=="female"){

header('Location: student\lhregistration.php');

}

}

else{

$errmsg= "*Error occoured";

}

}

}

else{

$errmsg="*All fields are required";

}

}

?></head>

<link rel="stylesheet" href="css\resgistration.css">
```

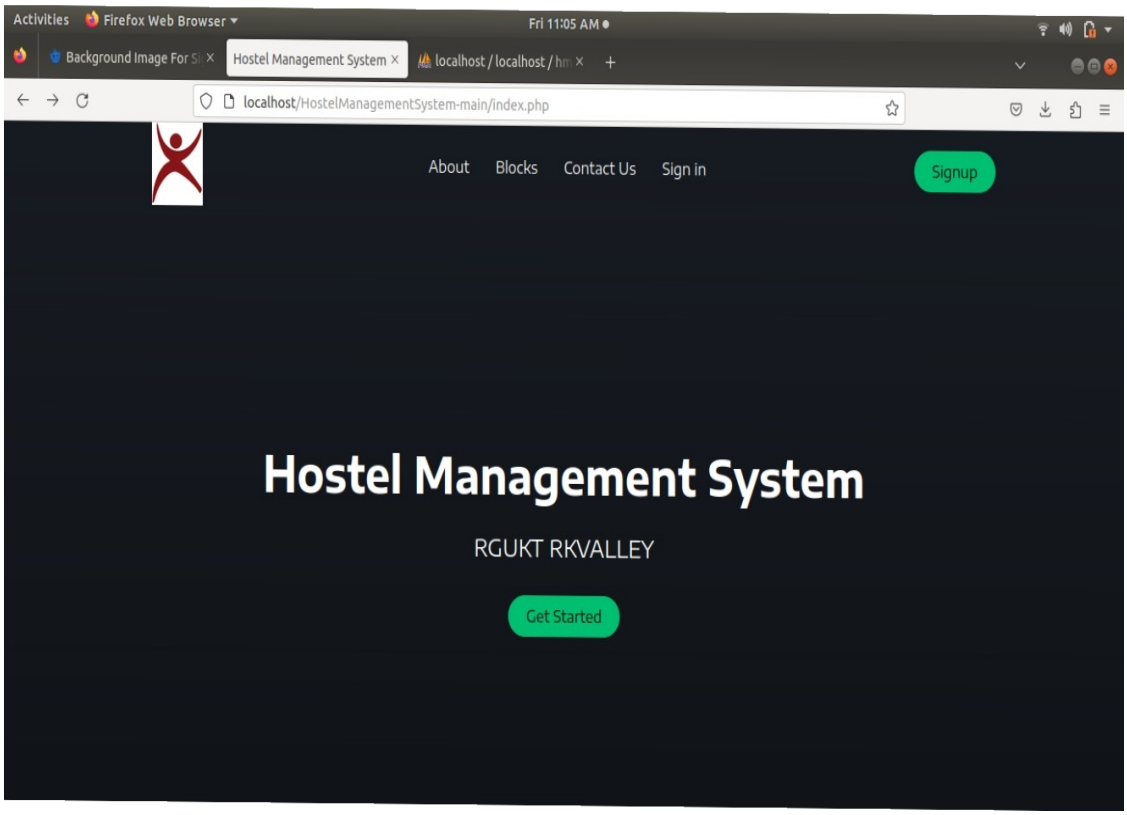
```
<body>

<?php

session_start(); ?>

<div class="container">

<div class="title">Registration</div>

<div class="content">

<form action="registration.php" method="post">

<div class="user-details">

<div class="input-box">

<span class="details">Full Name</span>

<input name="name" type="text" placeholder="Enter your name" value="<?

php echo "$name"; ?>" required pattern="[a-z A-Z]*">

</div>

<div class="input-box">

<span class="details">Reg No</span>

<input type="text" placeholder="Enter your regno" name="regno" value="<?

php echo "$regno"; ?>" pattern="[0-9]{4}" required>

</div>
```

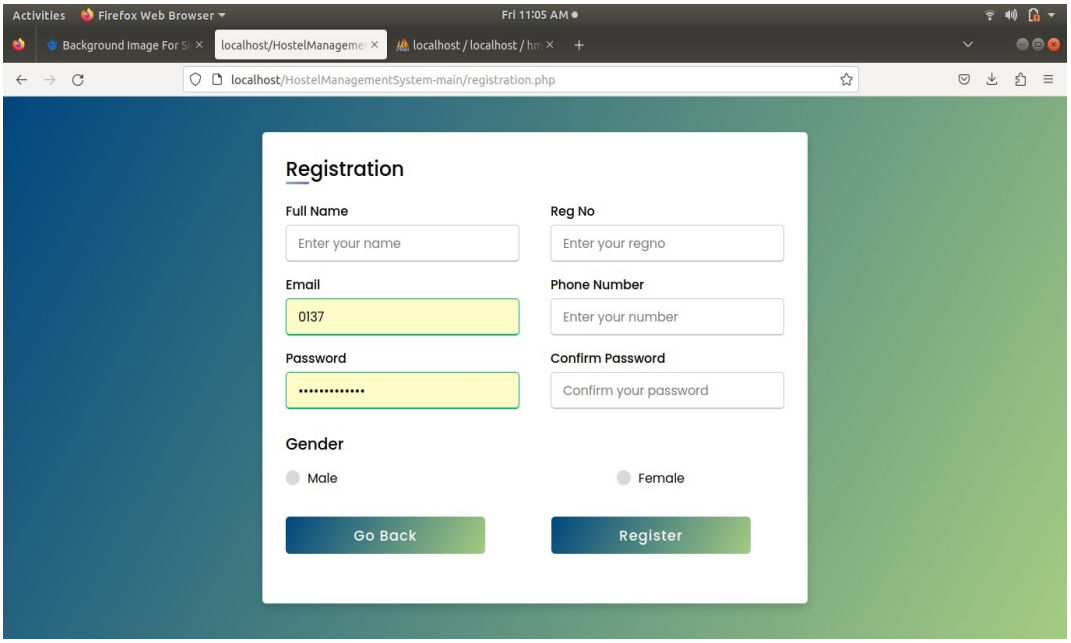
```
<div class="input-box">

<span class="details">Email</span>

<input type="text" placeholder="Enter your email" name="email"
value="<?

php echo "$email"; ?>" required>

</div>

<div class="input-box">

<span class="details">Phone Number</span>

<input type="text" placeholder="Enter your number" name="phoneno"

value="<?php echo "$phoneno"; ?>" pattern="[0-9]{10}" required>

</div>

<div class="input-box">

<span class="details">Password</span>

<input type="password" placeholder="Enter your password"

name="password" required>

</div>

<div class="input-box">

<span class="details">Confirm Password</span>

<input type="password" placeholder="Confirm your password"

name="confirmpassword" required>
```

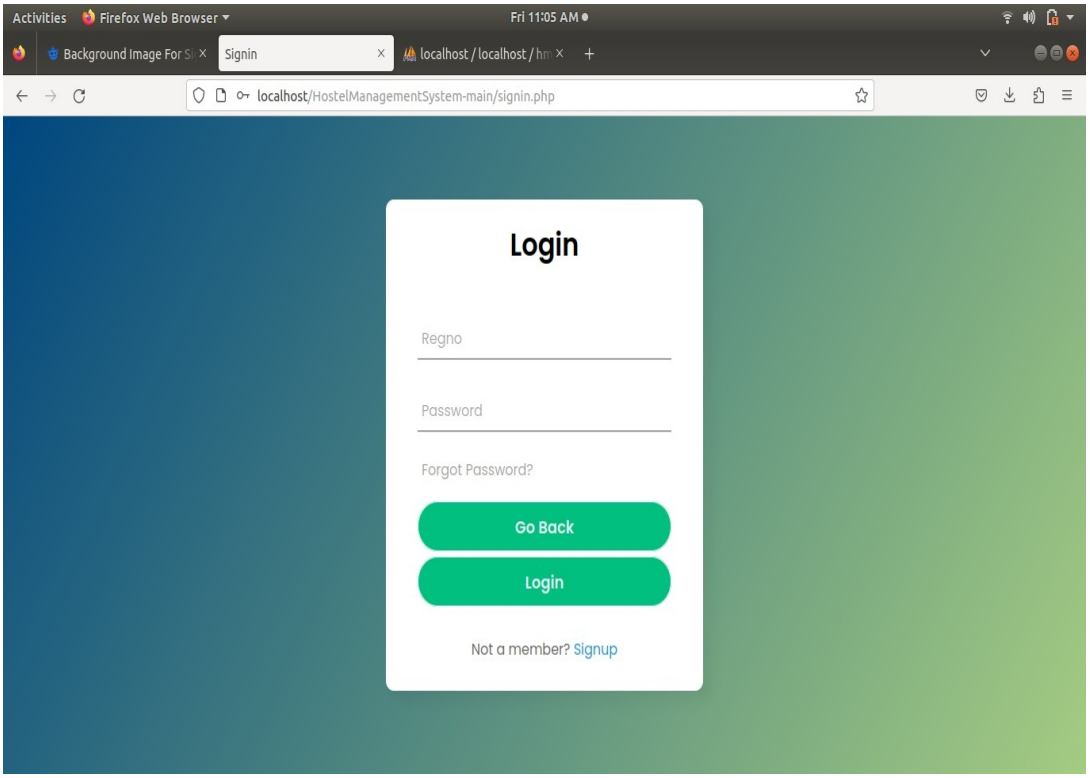
```
</div>

</div><div class="gender-details">

<input type="radio" name="gender" id="dot-1" value="male">

<input type="radio" name="gender" id="dot-2" value="female">

<span class="gender-title">Gender</span>

<div class="category">

<label for="dot-1">

<span class="dot one"></span>

<span class="gender">Male</span>

</label>

<label for="dot-2">

<span class="dot two"></span>

<span class="gender">Female</span>

</label>

</div>

</div>

<div class="button">

<input type="submit" value="Go Back" onclick="back()">

<input type="submit" value="Register" name="submit" style="margin-
left:85px;">
```

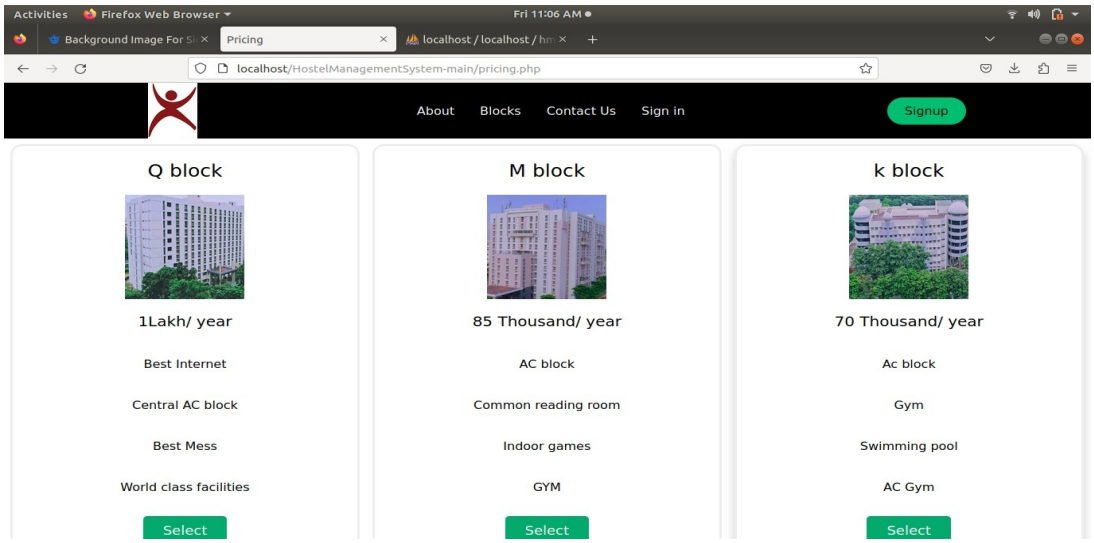
```
</div>

<span style="color:red"><?php echo $errmsg; ?></span>

</form>

</div>

</div>

</body>

</html>
```

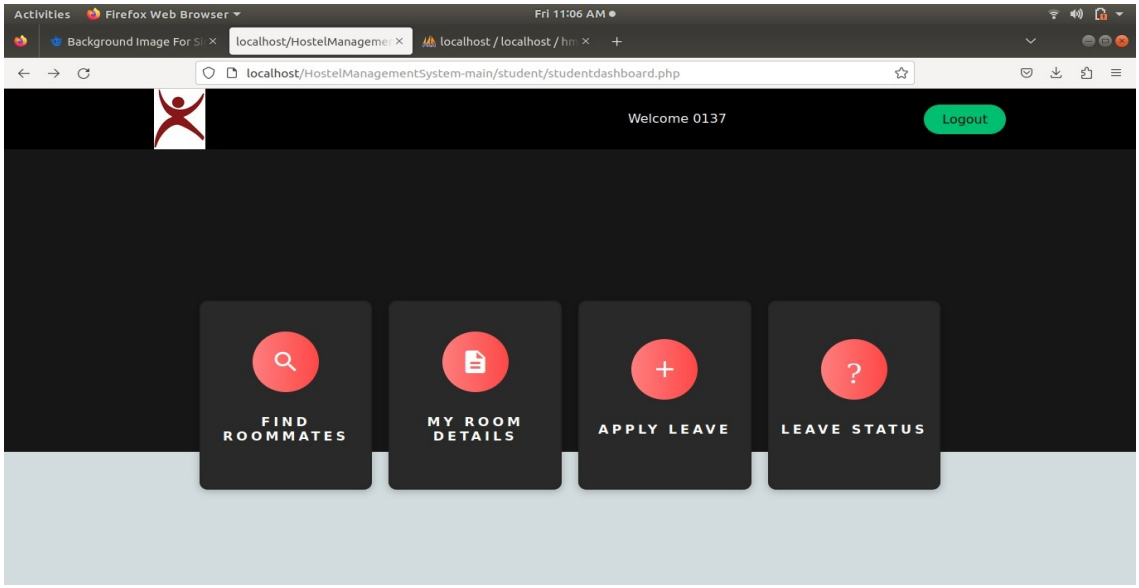
OUTPUT

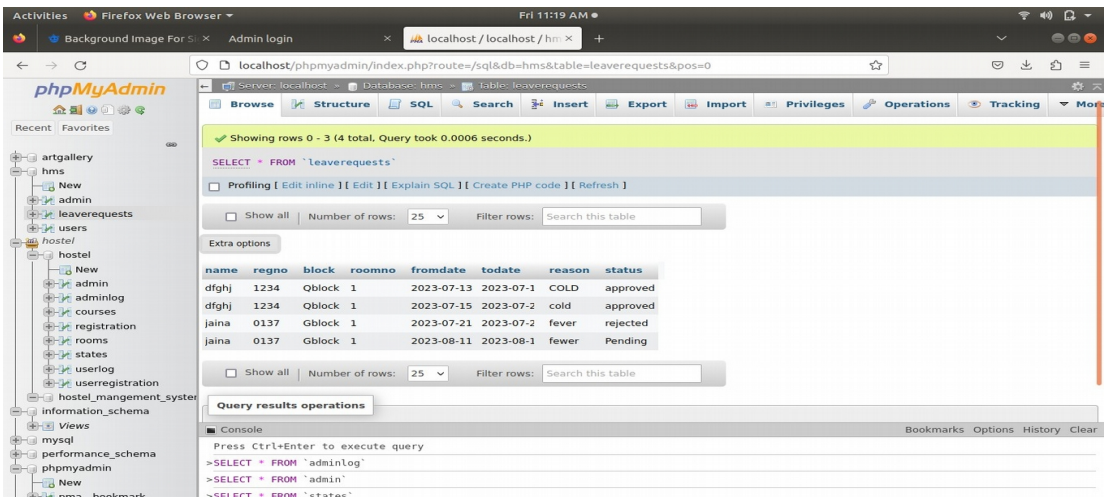



Activities
Firefox Web Browser
Fri 11:05 AM
Background Image For Si
localhost/HostelManagemer
localhost / localhost / hm
localhost/HostelManagementSystem-main/registration.php
Registration
Full Name
Enter your name
Reg No
Enter your regno
Email
0137
Phone Number
Enter your number
Password
Confirm Password
Confirm your password
Gender
Male
Female
Go Back
Register


Activities
Firefox Web Browser
Fri 11:05 AM
Background Image For Si
Signin
localhost / localhost / hm
localhost/HostelManagementSystem-main/signin.php
Login
Regno
Password
Forgot Password?
Go Back
Login
Not a member? Signup


Activities
Firefox Web Browser
Fri 11:06 AM
Pricing
localhost/HostelManagementSystem-main/pricing.php
About
Blocks
Contact Us
Sign in
Signup
Q block
1Lakh/ year
Best Internet
Central AC block
Best Mess
World class facilities
Select
M block
85 Thousand/ year
AC block
Common reading room
Indoor games
GYM
Select
k block
70 Thousand/ year
Ac block
Gym
Swimming pool
AC Gym
Select


Activities
Firefox Web Browser
Fri 11:06 AM
localhost/HostelManagementSystem-main/student/studentdashboard.php
Welcome 0137
Logout
FIND ROOMMATES
MY ROOM DETAILS
APPLY LEAVE
LEAVE STATUS


Activities
Firefox Web Browser
Fri 11:19 AM
Admin login
localhost/phpmyadmin/index.php?route=/sql&db=hms&table=leaverequests&pos=0
phpMyAdmin
Recent
Favorites
artgallery
hms
New
admin
leaverequests
users
hostel
hostel
New
admin
adminlog
courses
registration
rooms
states
userlog
userregistration
hostel_mangement_syster
information_schema
Views
mysql
performance_schema
phpmyadmin
New
Browse
Structure
SQL
Search
Insert
Export
Import
Privileges
Operations
Tracking
Showing rows 0 - 3 (4 total, Query took 0.0006 seconds.)
SELECT * FROM `leaverequests`
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]
Show all
Number of rows: 25
Filter rows: Search this table
Extra options
name regno block roomno fromdate todate reason status
dfghj 1234 Qblock 1 2023-07-13 2023-07-1 COLD approved
dfghj 1234 Qblock 1 2023-07-15 2023-07-2 cold approved
jaina 0137 Gblock 1 2023-07-21 2023-07-2 fever rejected
jaina 0137 Gblock 1 2023-08-11 2023-08-1 fewer Pending
Show all
Number of rows: 25
Filter rows: Search this table
Query results operations
Console
Bookmarks
Options
History
Clear
Press Ctrl+Enter to execute query
>SELECT * FROM `adminlog`
>SELECT * FROM `admin`

CHAPTER 5

CONCLUSION

Our project “HOSTEL MANAGEMENT SYSTEM” is a very helpful and important project thatwill manage various activities in the hostel like accommodation, rents, student records a many other things that are very useful for a well-managed hostel. The scope of this project is to providethe facility of the living to the student of rural areas, who are unable to study further in their area.They will be able to have an affordable rates of living in hostel and they will be fully provided the environment which they need for their studies. Another benefit of this project is that all thehostel managing works can be done easily through it by saving our time and also by saving thehuman efforts. This management system will be an errorless or bugs free management systemand will be able to show the records of even years without any confliction.

In conclusion, hostel management extends beyond mere facility maintenance; it encompasses a holistic approach to nurturing an inclusive, organized, and harmonious living environment. By prioritizing residents' needs, optimizing administrative processes, and fostering a sense of community, effective hostel management creates a win-win situation for both the residents and the administration. As educational institutions and hospitality sectors continue to evolve,embracing modern management strategies will undoubtedly lead to improved resident satisfaction and operational excellence.

CHAPTER 5

CONCLUSION

ADVANTAGES:

The expected outcomes for a Hostel Management System project typically include:

1. Efficient Record Keeping

2.Room Allocation

3.Fee Management

4.Attendance Tracking

5.Security

6.Communication

7.Inventory Management

8.Reports and Analytics

9.Reduces human errors

10.User-friendly Interface

11.Data Security

12.Cost-Efficiency

13.Scalability

14.Feedback mechanism

15.Centrailized management

SCOPE:

The future scope for a Hostel Management System project is promising and can include several enhancements and expansions to meet evolving needs.Some potential future directions for this project could include:

1.Mobile Applications

2.Artificial Intelligence(AI) Integration

3.IOT Integration

4.Payment Gateways

5.Data Analytics and Business Intelligence

6.Machinelearning for Personalization

7.Smart room features

8.Energy Efficiency

9.Virtual tours

10.Enhanced Security

11.Internationalization

12.Feedback and Ratings

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APPENDIX