

# MAJOR PROJECT REPORT

On

## **HOSTEL MANAGEMENT SYSTEM USING PHP AND MYSQL**

*Submitted for the partial fulfillment of the  
Requirements for the award of the degree of*

## **MASTER OF COMPUTER SCIENCE**

SUBMITTED BY

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UNDER OF THE VALUABLE GUIDENCE OF

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DEPARTMENT OF COMPUTER SCIENCE

VIKRAMA SIMHAPURI UNIVERSITY

COLLEGE, KAVALI-524201

(2021-2023)

# **VIKRAMA SIMHAPURI UNIVERSITY COLLEGE**

**KAVALI-524201**



## **CERTIFICATE**

**This is to certificate that project report entitled**

***HOSTEL MANAGEMENT SYSTEM USING PHP AND  
MYSQL***

**Is the bonafied work done by**

**MUMMANA ANAND**

**(REGD.NO: 210408042001)**

**Have been prepared under the guidance and supervision of Dr. M.RANI, MCA, M.TECH, Ph.D. The work has been satisfactory and is recommended for Consideration towards the partial fulfillment of the award of the degree of "MASTER OF COMPUTER SCIENCE" of VIKRAMA SIMHAPURI UNIVERSITY,NELLORE.**

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**Examiners:**

**1)**

**2)**

# VIKRAMA SIMHAPURI UNIVERSITY COLLEGE

**KAVALI-524201**



---

## **CERTIFICATE**

This is to certify that Mr.**Mummana Anand** bearing Reg No. **210408042001** **M.Sc (Computer Science)** IV semester, V.S.University College, Kavali , has successfully Completed the project titled **"Hostel Management System"** as part of the course curriculum in Our V.S.University College, Kavali itself.

He has done the project using **PHP** during the period 08.05.2023 to 31.07.2023, under the guidance and supervision of **Dr. M.Rani, MCA, M.TECH, Ph.D.**

He has completed the assigned project well within this frame. He is sincere and Hard working and his conduct during period is commendable.

We wish his all the success in his future endeavors.

Thanking you,

Your faithfully

**COORDINATOR**

## **DECLARATION**

*This is to declared that the project entitle “**HOSTEL MANAGEMENT SYSTEM USING PHP AND MYSQL**” submitted by us in fulfillment of the M.sc course of Vikrama Simhapuri University is a bonified record of the project work carried out by us in the period fourth semester under the supervision of **Dr. M.RANI ,MCA, M.TECH, Ph.D.** ,the report has not been submitted to any other institute or university for the award of any degree.*

**DATE:**

**MUMMANA ANAND**

**PLACE:**

**(REGD. NO: 210408042001)**

# Acknowledgement

## ACKNOWLEDGEMENT

We take this occasion to thank God, almighty for blessing us with his grace and taking our Endeavour to a successful culmination. We extend our sincere and heartfelt thanks to our esteemed guide, **Dr. M.RANI, MCA, M.Tech, Ph.D.** for providing us with the right guidance and advice at the crucial junctures and for showing us the right way. We extend our sincere thanks to our respected head of the department **Prof. CH.SRINIVASA RAO, M.com, UGC-NET, MBA, Ph.D,** for allowing us to use the facilities available. We would like to thank the other faculty members also, at this occasion. Last but not the least, we would like to thank friends for the support and encouragement they have given us during the course of our work.

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## **LIST OF ABBREVIATIONS**

**PHP**-Hypertext Preprocessor

**DBMS**-Database Management System

**UI**-User Interface

**API**-Application Programming Interface

**SQL**-Structured Query Language

**HTML**-Hypertext Markup Language

**CSS**-Cascading Style Sheets

**JS**-JavaScript

**UX**-User Experience

**ERP**-Enterprise Resource Planning

**CMS**-Content Management System

**URL**-Uniform Resource Locator

**SMS**-Short Message Service

**HTTP**-Hyper Text Transfer Protocol

**PDF**-Portable Document Format

**HMS**-Hostel Management System

## ABSTRACT

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 designing of computerized system that will be compatible to the existing system with the system Which is more user friendly and more GUI oriented. We can improve the efficiency of the system, thus overcome the drawbacks of the existing system.

- Less human error
- Strength and strain of manual labor 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

# INTRODUCTION

## **1.1 Problem definition(purpose)**

We have got two hostels in our university, which consist of boy's hostel and girl's hostel. All these hostels at present are managed manually by the hostel office. The Registration form verification to the different data processing are done manually.

Thus there are a lot of repetitions which can be easily avoided. 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 designing of computerized system that will be compatible to the existing system with the system which is more user friendly and more GUI oriented. We can improve the efficiency of the system, thus overcome the drawbacks of the existing system.

## **1.2 Admin Panel**

### **1.Admin Login**

Admin can login through login form.

### **2. Admin Profile**

Admin can manage his own profile. Admin can also change his password

### **3.Courses**

Admin can create add course, edit courses and also delete the course

### **4. Rooms**

Admin can create rooms and allots seater to particular rooms and assign the fees.

### **5. Registration**

Admin can create student profile and allot the rooms

### **6. Manage the Registration**

Admin can manage the all the student Profile. Take a print out of all profiles and also delete the profile.

### **7. Forgot Password**

Admin can also retrieve the password if admin forgot the password.

## **1.3 User Panel**

1. **Student Registration----** User can register through user registration form
2. **Student Login--** User can login through login form
3. **Forgot Password—**user can retrieve password through forgot password link
4. **Student Dashboard**
5. **Student Profile—**User can manage own profile
6. **Book Hostel –** User can book hostel
7. **Room Details-** Booked Room Details
8. **Change Password-** User Can change own password
9. **User access log-** User can watch last login details

# LITERATURE SURVEY

## 2.1 Introduction

Hostel management system development using PHP program has lots of codes, Using Internet in gathering information partially contributed to the success of this project. Due to the fact that PHP is an open source program, development of hostel management system was not too difficult. However, thanks to the cyber world (Internet) that makes it possible to study and make comparison in needs of some code function. Numbers of hostel management system documents were examine and compare to the need of Rufus Giwa Polytechnic proposed hostel management system. For instance, Hostel Management System by Cochin University of Science and Technology Division of Computer Engineering Centre for Engineering Studies Cochin-682022, help in my initial research of hostel management system application. Among other web site that was used in my research is freesourcecode.com. It provided me with different codes which I used in the development of this program. Using of textbooks and journal on the net was also a great source of information and assistance in realizing the goal of this project. For instance, "A review of PHP compilers and their outputs" Favre, Nicolas (2010-02-16) gave a good layout of product design. Also, Personal Home Page Tools (PHP Tools) Lerdorf, Rasmus (1995-06-08), was very helpful and supportive in the product development of the pages of this project.

## 2.2 Existing System

This section is to review the current system and existing system that related to hostel management system. There are three (3) existing system that has been explored. Hostel Management System The Hostel Management System is a system specialty designed to centrally manage Hostel Association. This system is stand alone system. It is customize and user friendly software for Hostel. All administrative function and application system data has been designed to be keep centrally and unique for entire organization [1]. Base file Hostel creation, Block creation and Room Facility are defined in master file of hostel module and other main process such as room allocation, room change and mess management facilities are available in transaction file of this module.

## SYSTEM ANALYSIS

### 3.1 Existing System

For the past few years the number of educational institutions are increasing rapidly. Thereby the number of hostels are 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 designing of computerized system that will be compatible to the existing system with the system which is more user friendly and more GUI oriented. We can improve the efficiency of the system, thus overcome the following drawbacks of the existing system.

- more human error.
- more strength and strain of manual labour needed
- Repetition of the same procedures.
- low security
- Data redundancy
- difficult to handle
- difficult to update data
- record keeping is difficult
- Backup data can be easily generated



### **3.2 Proposed Hostel Management System:**

A hostel management system is designed to automate and streamline the administrative tasks of managing a hostel, including student registration, room allocation, fee management, attendance tracking, and more. Here's a basic outline of the proposed system's functionalities:

1. Student Registration:

- Capture student details such as name, contact information, course, etc.
- Assign a unique student ID.

2. Room Allocation:

- Manage room availability and occupancy.
- Assign students to available rooms based on room preferences, gender, and other criteria.

3. Fee Management:

- Record and manage fee payments for each student.
- Generate fee receipts and reminders for pending payments.

4. Attendance Tracking:

- Record and monitor student attendance.
- Generate reports on attendance trends.

5. Complaints and Requests:

- Allow students to raise complaints and requests.
- Admins can track and resolve these issues.

6. Admin Management:

- Manage hostel staff details, roles, and schedules.

7. Reports and Analytics:

- Generate various reports like occupancy rates, financial summaries, etc.

8. User Authentication and Security:

- Different user roles: admin, staff, and student.
- Secure login and access control.

### **3.3 SDLC Methodology:**

#### **Agile**

Given the dynamic nature of software development and the need to quickly adapt to changing requirements, the Agile methodology is often a good fit for projects like hostel management systems. Here's how you can apply Agile principles to your system analysis process:

1. Project Initiation

- Form a cross-functional team comprising developers, testers, and stakeholders.
- Identify the key features and requirements of the hostel management system.

## 2. Requirements Gathering and Analysis:

- Collaborate with hostel staff and stakeholders to define detailed requirements.
- Create user stories and acceptance criteria for each feature.

## 3. Sprint Planning:

- Divide the project into short development cycles (sprints), usually 2-4 weeks long.
- Select user stories from the backlog to be implemented in the upcoming sprint.

## 4. Development:

- Developers write code for the selected user stories.
- Regular communication within the team to address questions and concerns.

## 5. Testing:

- Testers ensure that each feature meets the acceptance criteria.
- Automated testing can be utilized to maintain code quality.

## 6. Review and Feedback:

- At the end of each sprint, demonstrate the completed features to stakeholders.
- Gather feedback and make necessary adjustments.

## 7. Iteration and Improvement:

- Use feedback to refine and prioritize the backlog for the next sprint.
- Iteratively develop and release new versions of the system.

## 8. Continuous Integration and Deployment:

- Integrate new code changes frequently to identify and fix issues early.
- Deploy the system incrementally, ensuring a stable and usable product at the end of each sprint.

## 9. Retrospective:

- At the end of each sprint, hold a retrospective meeting to discuss what went well and what could be improved.

## FEASIBILITY STUDY

Feasibility Study is basically the test of the proposed system in the light of its workability, meeting user's requirements, effective use of resources and of course, the cost effectiveness. As the name implies, feasibility study is an analysis of the viability of an idea. It ensures that a project is legally and technically feasible and economically justifiable. Moreover this study can be used in various ways with focus on the proposed business. It tells us whether a project is worth doable or not? Feasibility study is a must because: A feasibility study evaluates the project's potential for success; therefore, perceived objectivity is an important factor in the credibility of the study for potential investors and lending institutions The main goal of feasibility study is not to solve the problem but to achieve the scope. In the process of feasibility study, the cost and benefits are estimated with greater accuracy. It has three types:

- ☐ **Operational Feasibility**
- ☐ **Technical Feasibility**
- ☐ **Economic Feasibility**

### **4.1 Economic Feasibility**

Economic analysis is the most frequently used method for evaluating the effectiveness of a new system. More commonly known as cost/benefit analysis. PHP using IDE and MySQL database easily available Script Server Side (like XAMAP/ WAMAP) in internet. This procedure is to determine the benefits and savings that are expected from a candidate system and compare them with costs. If benefits outweigh costs, then the decision is made to design and implement the system. Otherwise, further justification or alterations in proposed system will have to be made if it is to have a chance of being approved. This is an ongoing effort that improves in accuracy at each phase of the system life cycle. Economic feasibility talks about the benefits that which we get from this project. Here with the introduction of this online process we are not only reducing the time take for the registration of the entrants. We even reduce the burden on the administrator. As this project is not only reducing the time but also the work burden of the user we say that this product is economically feasible.

## **4.2 Technical Feasibility**

The technical feasibility in the proposed system deals with the technology used in the system. It deals with the hardware and software used in the system whether they are of latest technology or not. It happens that after a system is prepared a new technology arises and the user wants the system based on that technology. This system use windows platform, PHP as front end technology and MySQL server as backend technology. Thus HOSTEL MANAGEMENT SYSTEM is technically feasible.

Technical feasibility centers on the existing computer system (hardware, software, etc.,) and to what extent it can support the proposed addition. If the budget is a serious constraint, then the project is judged not feasible. Technical feasibility speaks about the existing hardware and the software that we are using and the deviations that we have to make from the existing one, as we are developing the application using java there is no change in the hardware that we are using. So we say that this application is technically feasible as there is no change in the configuration more over it is cost effective.

## **4.3 Operational Feasibility**

The project has been developed in such a way that it becomes very easy even for a person with little computer knowledge to operate it. People are inherently resistant to change, and computers have been known to facilitate change. It is understandable that the introduction of a candidate system requires special effort to educate, sell, and train the staff on new ways of conducting business. As this project is a user friendly version there is not much training required for the people to use. This product is not only making the task of the administrator easy but it is reducing the time that is taken otherwise. So we say that this product is operationally feasible.

## SYSTEM DESIGN

### **5.1 Input Design**

The system design is divided in to two portions. The Administrator section and the User(student's) section.

#### **5.1.1 Administrator**

1. The Administrator can allot different students to the different hostels.
- 2.He can vacate the students for the hostels.
- 3.He can control the status of the fee payment.
- 4.He can edit the details of the students.He can change their rooms, edit and delete the student records.

A process of converting user originated inputs to a computer-based format. Input design is an important part of development process since inaccurate input data are the most common cause of errors in data processing. Erroneous entries can be controlled by input design. It consists of developing specifications and procedures for entering data into a system and must be in simple format. The goal of input data design is to make data entry as easy, logical and free from errors as possible. In input data design, we design the source document that capture the data and then select the media used to enter them into the computer.

There are two major approaches for entering data in to the computer. They are

- Menus.
- Dialog Boxes.

#### **Menus**

A menu is a selection list that simplifies computer data access or entry. Instead of remembering what to enter, the user chooses from a list of options. A menu limits a user choice of response but reduce the chances for error in data entry.

## **Dialog Box**

Dialog boxes are windows and these windows are mainly popup, which appear in response to certain conditions that occur when a program is run. It allows the display of bitmaps and pictures. It can have various controls like buttons, text boxes, list boxes and combo boxes. Using these controls we can make a 'dialog' with the program.

The proposed system has three major inputs. They are Machine Registration, Machine Scheduling and Request Form.

## **5.2 Process Design**

Process design plays an important role in project development. In order to understand the working procedure, process design is necessary. Data Flow Diagram and System Flow chart are the tools used for process design.

System Flow Chart is a graphical representation of the system showing the overall flow of control in processing at the job level; specifies what activities must be done to convert from a physical to logical model.

Data Flow Diagram is the logical representation of the data flow of the project. The DFD is

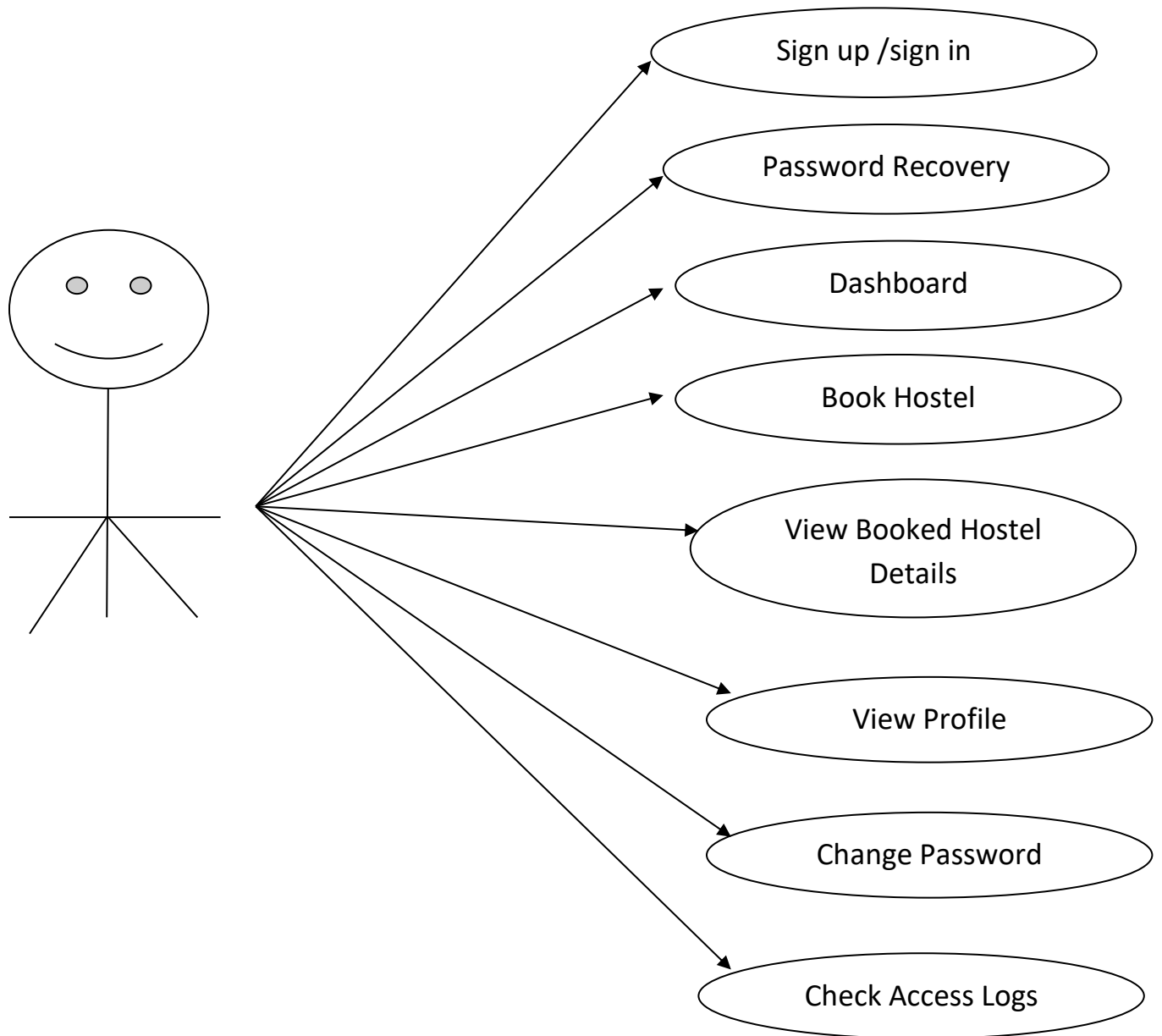
drawn using various symbols. It has a source and a destination. The process is represented using circles

and source and destination are represented using squares. The data flow is represented using arrows.

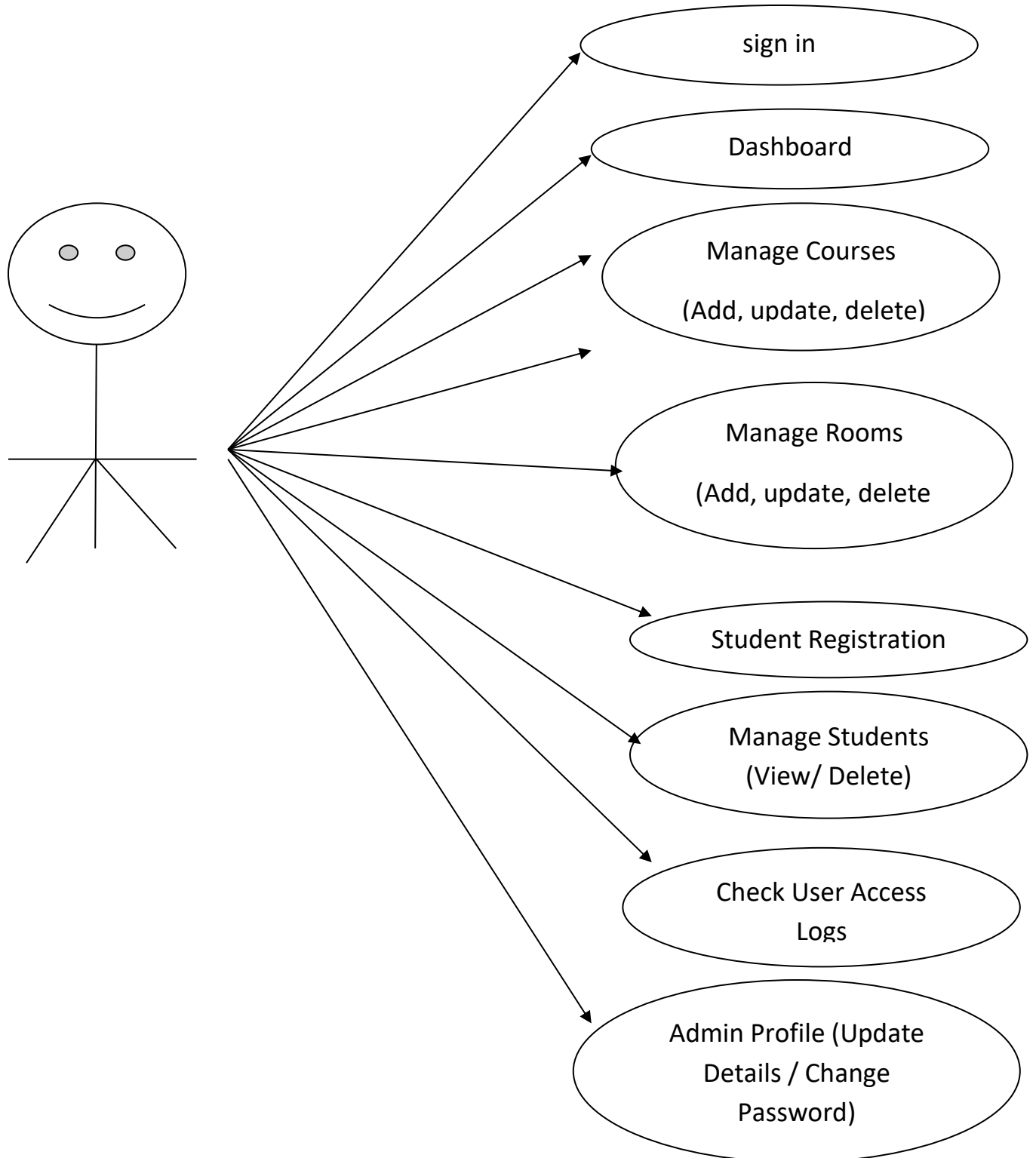
One reader can easily get the idea about the project through Data Flow Diagram.

## Use case Diagram

### 5.3.1 Student Use Case Diagram



### 5.3.2 Admin Use Case Diagram





## **5.4 Data Flow Diagram**

A Data Flow Diagram (DFD) is a graphical representation of the "flow" of data through an

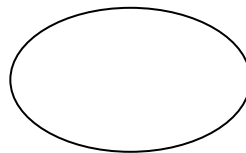
[http://en.wikipedia.org/wiki/Information\\_system](http://en.wikipedia.org/wiki/Information_system) Information System. A data flow diagram can also be used for the visualization of Data Processing. It is common practice for a designer to draw a context-level DFD first which shows the interaction between the system and outside entities. This context-level DFD is then "exploded" to show more detail of the system being modeled.

A DFD represents flow of data through a system. Data flow diagrams are commonly used during problem analysis. It views a system as a function that transforms the input into desired output. A DFD shows movement of data through the different transformations or processes in the system.

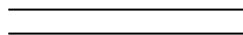
Dataflow diagrams can be used to provide the end user with a physical idea of where the data they input ultimately has an effect upon the structure of the whole system from order to dispatch to restock how any system is developed can be determined through a dataflow diagram. The appropriate register saved in database and maintained by appropriate authorities.

### **5.4.1 Data Flow Diagram Notation**

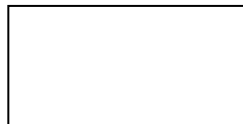
Function/Process



File/Database



Input/output



Flow



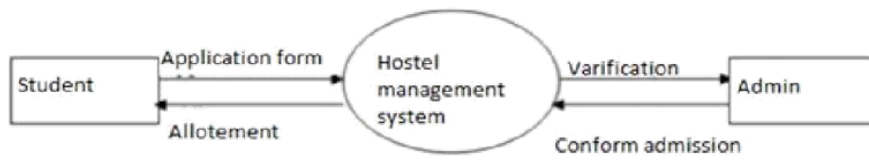


Fig 3.1 DFD for allotment process

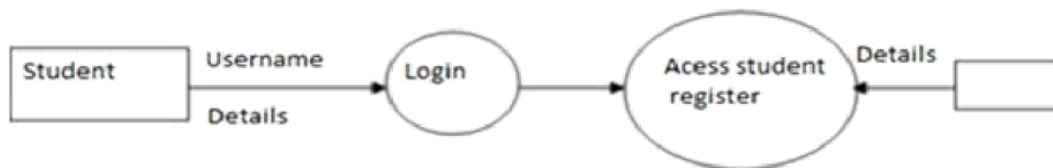


Fig 3.2 DFD for student module

## 3.3.3 Registration System

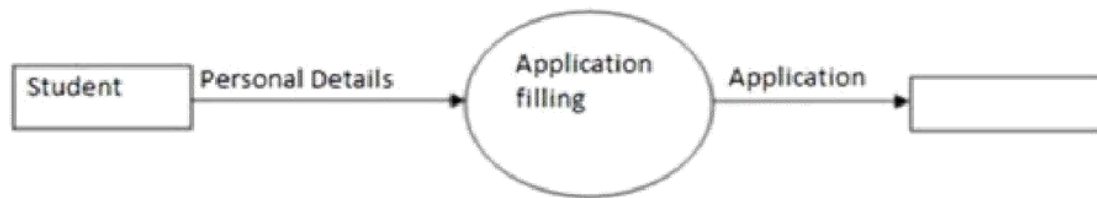
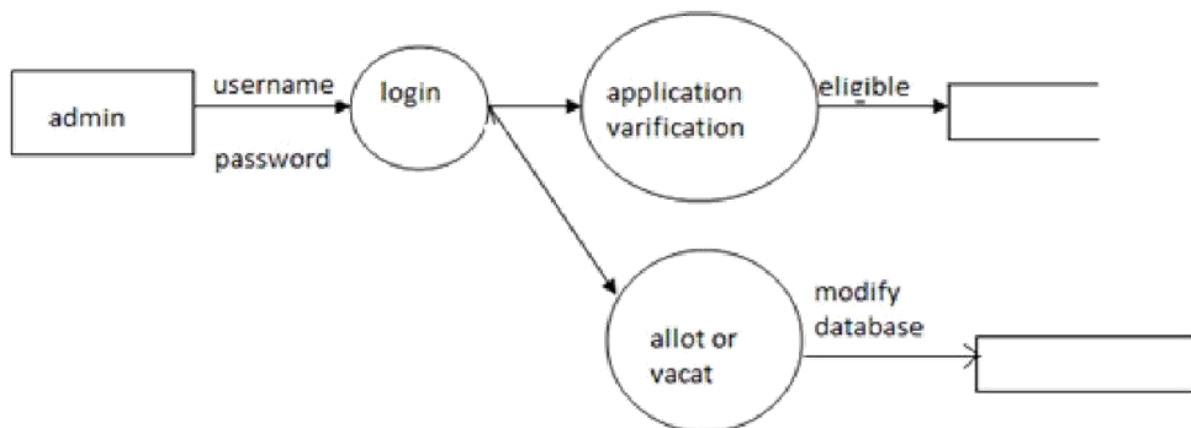


Fig 3.3 DFD for student registration



## **ER Diagram**

An Entity Relation(ER) Diagram is a specialized graphics that illustrates the interrelationship between entities in a database. ER diagrams often use symbols to represent 3 different types of information. Boxes are commonly used to represent entities. Diamonds are normally used to represent relationships and ovals are used to represent attributes.

An Entity Relationship Model (ERM), in software engineering is an abstract and conceptual representation of data. Entity Relationship modeling is a relational schema database modeling method, used to produce a type of conceptual schema or semantic data model of a system, often a relation database, and its requirements in a top-down fashion

### **Entity:**

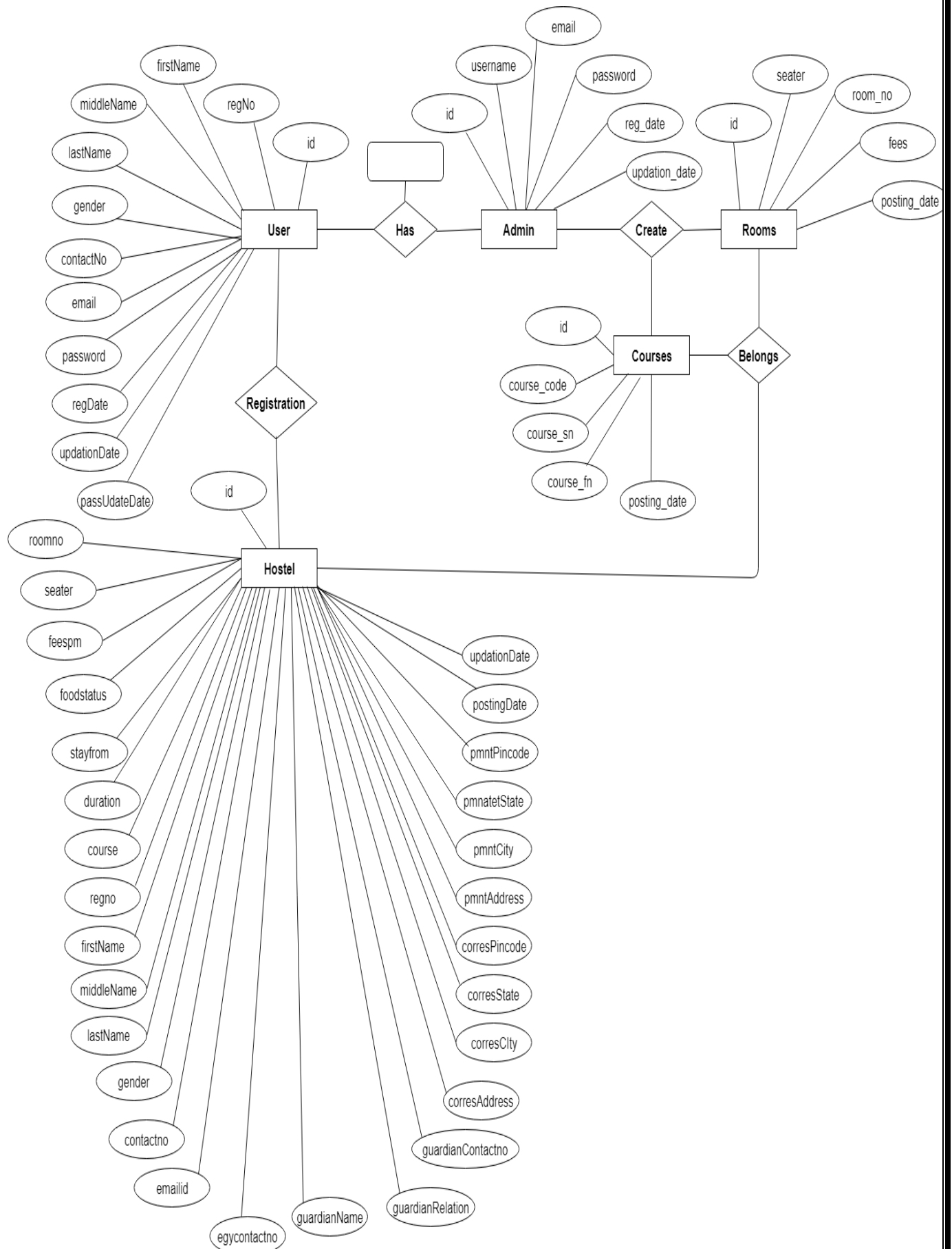
Entity is the thing which we want to store information. It is an elementary basic building block of storing information about business process. An entity represents an object defined within the information system about which you want to store information. Entities are distinct things in the enterprise.

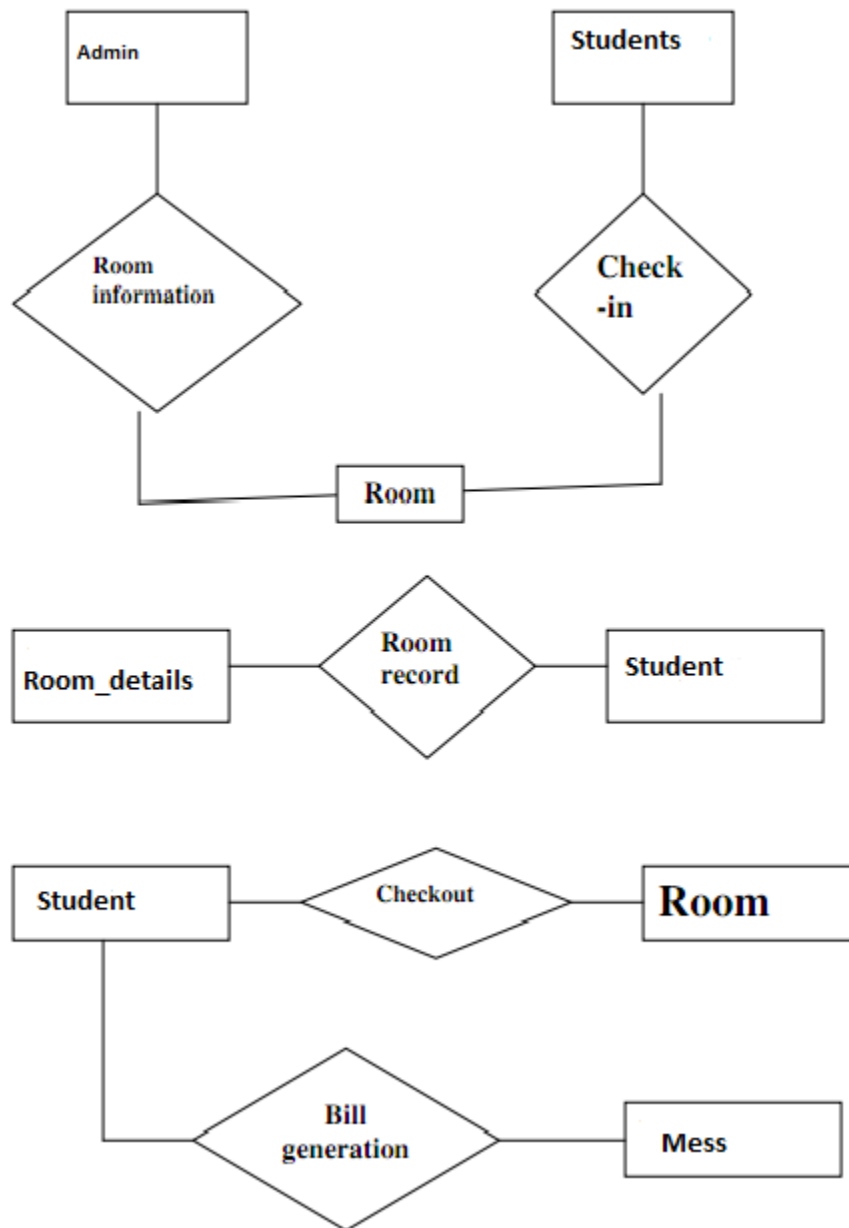
### **Relationships:**

A relationship is a named collection or association between entities or used to relate two or more entities with some common attributes or meaningful interaction between the objects.

### **Attributes:**

Attributes are the properties of the entities and relationship, Descriptor of the entity. Attributes are elementary pieces of information attached to an entity.



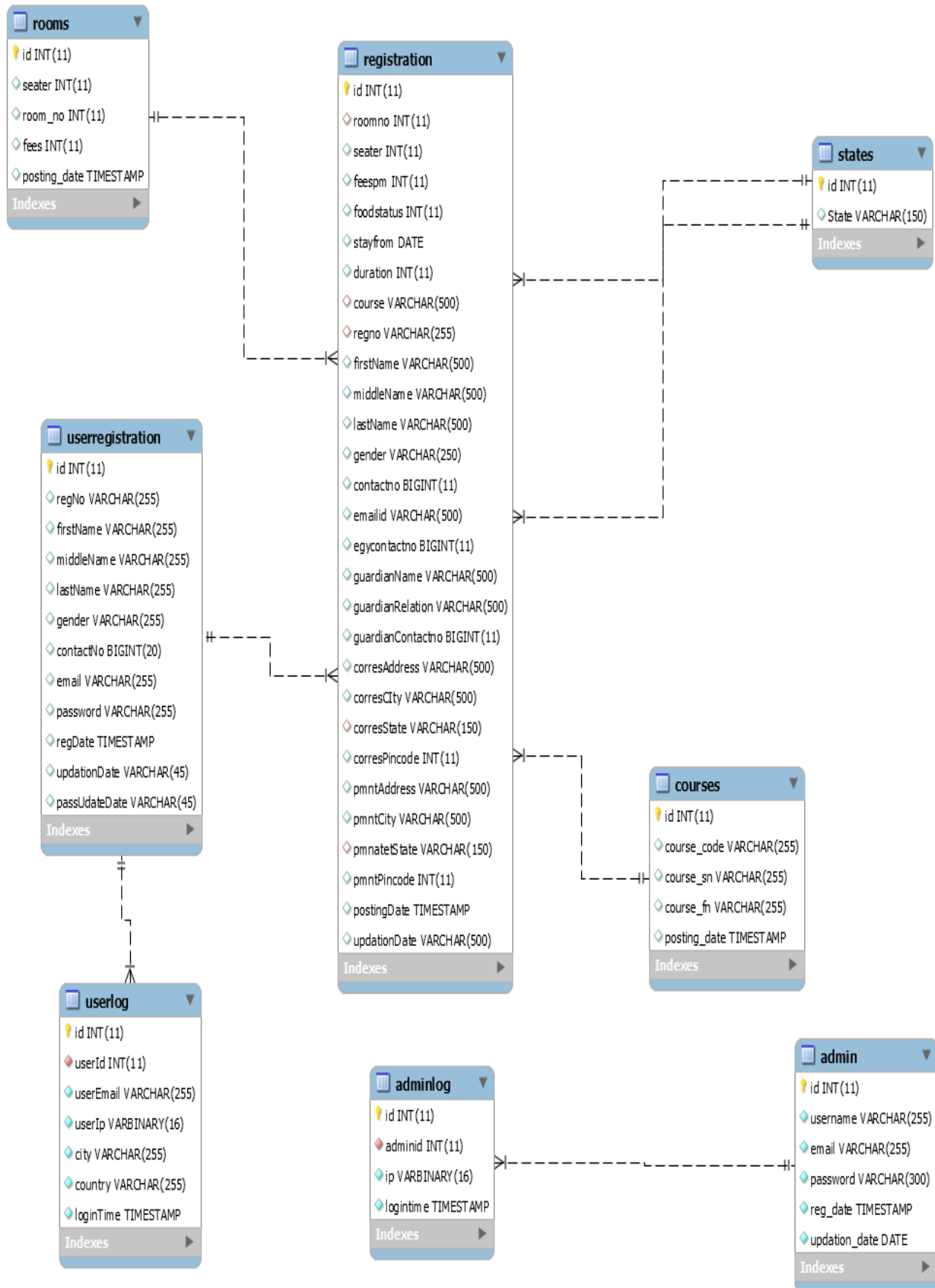
**CLASS DIAGRAMS**

## **5.5 Database Design**

The data in the system has to be stored and retrieved from database. Designing the database is part of system design. Data elements and data structures to be stored have been identified at analysis stage. They are structured and put together to design the data storage and retrieval system.

A database is a collection of interrelated data stored with minimum redundancy to serve many users quickly and efficiently. The general objective is to make database access easy, quick, inexpensive and flexible for the user. Relationships are established between the data items and unnecessary data items are removed. Normalization is done to get an internal consistency of data and to have minimum redundancy and maximum stability. This ensures minimizing data storage required, minimizing chances of data inconsistencies and optimizing for updates. The MySQL database has been chosen for developing the relevant databases.

## **Database Table Relationship**





## Admin Table Structure

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
<input type="checkbox"/> 1	id	int(11)			No	None	AUTO_INCREMENT	Change  Drop  Primary  Unique  Index ▼ More
<input type="checkbox"/> 2	username	varchar(255)	latin1_swedish_ci		No	None		Change  Drop  Primary  Unique  Index ▼ More
<input type="checkbox"/> 3	email	varchar(255)	latin1_swedish_ci		No	None		Change  Drop  Primary  Unique  Index ▼ More
<input type="checkbox"/> 4	password	varchar(300)	latin1_swedish_ci		No	None		Change  Drop  Primary  Unique  Index ▼ More
<input type="checkbox"/> 5	reg_date	timestamp			No	CURRENT_TIMESTAMP		Change  Drop  Primary  Unique  Index ▼ More
<input type="checkbox"/> 6	update_date	date			No	None		Change  Drop  Primary  Unique  Index ▼ More

## Courses Table Structure

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
<input type="checkbox"/> 1	id	int(11)			No	None	AUTO_INCREMENT	Change  Drop  Primary  Unique  Index ▼ More
<input type="checkbox"/> 2	course_code	varchar(255)	latin1_swedish_ci		No	None		Change  Drop  Primary  Unique  Index ▼ More
<input type="checkbox"/> 3	course_sn	varchar(255)	latin1_swedish_ci		No	None		Change  Drop  Primary  Unique  Index ▼ More
<input type="checkbox"/> 4	course_fn	varchar(255)	latin1_swedish_ci		No	None		Change  Drop  Primary  Unique  Index ▼ More
<input type="checkbox"/> 5	posting_date	timestamp			No	CURRENT_TIMESTAMP		Change  Drop  Primary  Unique  Index ▼ More














## Registration Table Structure

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	id	int(11)			No	None	AUTO_INCREMENT	Change Drop Primary Unique Index Spatial More
2	roomno	int(11)			No	None		Change Drop Primary Unique Index Spatial More
3	seater	int(11)			No	None		Change Drop Primary Unique Index Spatial More
4	feespm	int(11)			No	None		Change Drop Primary Unique Index Spatial More
5	foodstatus	int(11)			No	None		Change Drop Primary Unique Index Spatial More
6	stayfrom	date			No	None		Change Drop Primary Unique Index Spatial More
7	duration	int(11)			No	None		Change Drop Primary Unique Index Spatial More
8	course	varchar(500)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial More
9	regno	int(11)			No	None		Change Drop Primary Unique Index Spatial More
10	firstName	varchar(500)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial More
11	middleName	varchar(500)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial More
12	lastName	varchar(500)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial More
13	gender	varchar(250)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial More
14	contactno	bigint(11)			No	None		Change Drop Primary Unique Index Spatial More
15	emailid	varchar(500)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial More
16	egycontactno	bigint(11)			No	None		Change Drop Primary Unique Index Spatial More
17	guardianName	varchar(500)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial More
18	guardianRelation	varchar(500)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial More
19	guardianContactno	bigint(11)			No	None		Change Drop Primary Unique Index Spatial More
20	corresAddress	varchar(500)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial More
21	corresCity	varchar(500)	latin1_swedish_ci		No	None		Change Drop Primary Unique Index Spatial More
22	posting_date	timestamp			No	CURRENT_TIMESTAMP		Change Drop Primary Unique Index Spatial More

## Rooms Table Structure

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	id	int(11)			No	None	AUTO_INCREMENT	Change Drop Primary Unique Index Spatial Fulltext Distinct values
2	seater	int(11)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
3	room_no	int(11)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
4	fees	int(11)			No	None		Change Drop Primary Unique Index Spatial Fulltext Distinct values
5	posting_date	timestamp			No	CURRENT_TIMESTAMP		Change Drop Primary Unique Index Spatial Fulltext Distinct values

## **State Table Structure**

#	Name	Type	Collation	Attributes	Null	Default	Extra	Action
1	id	int(11)			No	None	AUTO_INCREMENT	 Change  Drop  Primary  Unique  Index  Spatial  Fulltext  Distinct values
2	State	varchar(150)	latin1_swedish_ci		Yes	NULL		 Change  Drop  Primary  Unique  Index  Spatial  Fulltext  Distinct values

## **6.6 Output Design**

Designing computer output should proceed in an organized, well throughout manner; the right output element is designed so that people will find the system whether or executed. When we design an output we must identify the specific output that is needed to meet the system. The usefulness of the new system is evaluated on the basis of their output.

Once the output requirements are determined, the system designer can decide what to include in the system and how to structure it so that the require output can be produced. For the proposed software, it is necessary that the output reports be compatible in format with the existing reports. The output must be concerned to the overall performance and the system's working, as it should. It consists of developing specifications and procedures for data preparation, those steps necessary to put the inputs and the desired output, ie maximum user friendly. Proper messages and appropriate directions can control errors committed by users.

The output design is the key to the success of any system. Output is the key between the user and the sensor. The output must be concerned to the system's working, as it should.

Output design consists of displaying specifications and procedures as data presentation. User never left with the confusion as to what is happening without appropriate error and acknowledges message being received. Even an unknown person can operate the system without knowing anything about the system.

# SYSTEM ENVIRONMENT

## 6.1 Hardware Configuration

1. Pentium IV Processor
2. 512 MB RAM
3. 40GB HDD
4. 1024 \* 768 Resolution Color Monitor

**Note: This is not the “System Requirements”.**

## 6.2 Software Configuration

1. OS : Windows XP
2. PHP Triad (PHP5.6, MySQL, Apache, and PHPMyAdmin)

## 6.3 Software Features

### **6.3.1 PHP TRIAD**

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

#### **6.3.1.1 PHP**

**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 formal 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.

*PHP* originally stood for Personal Home Page. It began in 1994 as a set of Common Gateway Interface binaries written in the C programming language by the Danish/Greenlandic programmer Rasmus Lerdorf. Lerdorf initially created these Personal Home Page Tools to replace a small set of Perl scripts he had been using to maintain his personal homepage. The tools were used to perform tasks such as displaying his résumé and recording how much traffic his page was receiving. He combined these binaries with his Form Interpreter to create PHP/FI, which had more functionality. PHP/FI included a larger implementation for the C programming language and could communicate with databases, enabling the building of simple, dynamic web applications.

Lerdorf released PHP publicly on June 8, 1995 to accelerate bug location and improve the code. This release was named PHP version 2 and already had the basic functionality that PHP has today. This included Perl-like variables, form handling, and the ability to embed HTML. The syntax was similar to Perl but was more limited, simpler, and less consistent. Zeev Suraski and Andi Gutmans, two Israeli developers at the Technion IIT, rewrote the parser in 1997 and formed the base of PHP 3, changing the language's name to the recursive initialism *PHP: Hypertext Preprocessor*. The development team officially released PHP/FI 2 in November 1997 after months of beta testing. Afterwards, public testing of PHP 3 began, and the official launch came in June 1998. Suraski and Gutmans then started a new rewrite of PHP's core, producing the Zend Engine in 1999. They also founded Zend Technologies in Ramat Gan, Israel.

On May 22, 2000, PHP 4, powered by the Zend Engine 1.0, was released. On July 13, 2004, PHP 5 was released, powered by the new Zend Engine II. PHP 5 included new features such as improved support for object-oriented programming, the PHP Data Objects extension (which defines a lightweight and consistent interface for accessing databases), and numerous performance enhancements. The most recent update released by The PHP Group is for the older PHP version 4 code branch.

In 2008, PHP 5 became the only stable version under development. Late static binding has been missing from PHP and will be added in version 5.3. PHP 6 is under development alongside PHP 5. Major changes include the removal of `register_globals`, magic quotes, and safe mode. The reason for the removals was because `register_globals` had given way to security holes, and magic quotes had an unpredictable nature, and was best avoided. Instead, to escape characters, Magic quotes may be substituted with the `addslashes()` function, or more appropriately an escape mechanism specific to the database vendor itself like `mysql_real_escape_string()` for MySQL.

PHP does not have complete native support for Unicode or multibyte strings; Unicode support will be included in PHP 6. Many high profile open source projects ceased to support PHP 4 in new code as of February 5, 2008, due to the GoPHP5 initiative, provided by a consortium of PHP developers promoting the transition from PHP 4 to PHP 5. It runs in both 32-bit and 64-bit environments, but on Windows the only official distribution is 32-bit, requiring Windows 32-bit compatibility mode to be enabled while using IIS in a 64-bit Windows environment. There is a third-party distribution available for 64-bit Windows.

## **Usage**

PHP is a general-purpose scripting language that is especially suited for web development. PHP generally runs on a web server, taking PHP code as its input and creating web pages as output. It can also be used for command-line scripting and client-side GUI applications. PHP can be deployed

on most web servers, many operating systems and platforms, and can be used with many relational database management systems. It is available free of charge, and the PHP Group provides the complete source code for users to build, customize and extend for their own use.

PHP primarily acts as a filter, taking input from a file or stream containing text and/or PHP instructions and outputs another stream of data; most commonly the output will be HTML. It can automatically detect the language of the user. From PHP 4, the PHP parser compiles input to produce bytecode for processing by the Zend Engine, giving improved performance over its interpreter predecessor. Originally designed to create dynamic web pages, PHP's principal focus is server-side scripting, and it is similar to other server-side scripting languages that provide dynamic content from a web server to a client, such as Microsoft's Active Server Pages, Sun Microsystems' JavaServer Pages, and `mod_perl`. PHP has also attracted the development of many frameworks that provide building blocks and a design structure to promote rapid application development (RAD). Some of these include CakePHP, Symfony, CodeIgniter, and Zend Framework, offering features similar to other web application frameworks.

The LAMP architecture has become popular in the web industry as a way of deploying web applications. PHP is commonly used as the *P* in this bundle alongside Linux, Apache and MySQL, although the *P* may also refer to Python or Perl. As of April 2007, over 20 million Internet domains were hosted on servers with PHP installed, and PHP was recorded as the most popular Apache module. Significant websites are written in PHP including the user-facing portion of Facebook, Wikipedia (MediaWiki), Yahoo!, MyYearbook, , Digg, Wordpress and Tagged. In addition to server-side scripting, PHP can be used to create stand-alone, compiled applications and libraries, it can be used for shell scripting, and the PHP binaries can be called from the command line.

#### **6.3.1.1.1 Speed optimization**

As with many scripting languages, PHP scripts are normally kept as human-readable source code, even on production web servers. In this case, PHP scripts will be compiled at runtime by the PHP engine,

which increases their execution time. PHP scripts are able to be compiled before runtime using PHP compilers as with other programming languages such as C (the language PHP and its extensions are written in). Code optimizers aim to reduce the computational complexity of the compiled code by reducing its size and making other changes that can reduce the execution time with the overall goal of improving performance. The nature of the PHP compiler is such that there are often opportunities for code optimization, and an example of a code optimizer is the Zend Optimizer PHP extension.

Another approach for reducing overhead for high load PHP servers is using PHP accelerators. These can offer significant performance gains by caching the compiled form of a PHP script in shared memory to avoid the overhead of parsing and compiling the code every time the script runs.

#### **.3.1.1.2 Security**

The National Vulnerability Database stores all vulnerabilities found in computer software. The overall proportion of PHP-related vulnerabilities on the database amounted to: 12% in 2003, 20% in 2004, 28% in 2005, 43% in 2006, 36% in 2007, and 35% in 2008. Most of these PHP-related vulnerabilities can be exploited remotely: they allow hackers to steal or destroy data from data sources linked to the webserver (such as an SQL database), send spam or contribute to DOS attacks using malware, which itself can be installed on the vulnerable servers.

These vulnerabilities are caused mostly by not following best practice programming rules: technical security flaws of the language itself or of its core libraries are not frequent. Recognizing that programmers cannot be trusted, some languages include taint checking to detect automatically the lack of input validation which induces many issues. However, such a feature is being developed for PHP

Hosting PHP applications on a server requires a careful and constant attention to deal with these security risks. There are advanced protection patches such as Suhosin and Hardening-Patch, especially designed for web hosting environments. Installing PHP as a CGI binary rather than as an Apache module is the preferred method for added security. With respect to securing the code itself, PHP code can be obfuscated to make it difficult to read while remaining functional.



### .3.1.1.3 Syntax

```

<html>

<head>

    <title>PHP  Test  </title>

</head>

<body>

    <?php  echo  "<p>  Hello  World  </p>";  ?>

</body></html>

```

**Note :** - Code in bold letters shows the PHP code embedded within HTML

PHP only parses code within its delimiters. Anything outside its delimiters is sent directly to the output and is not parsed by PHP. The most common delimiters are `<?php` and `?>`, which are open and close delimiters respectively. `<script language="php">` and `</script>` delimiters are also available. Short tags can be used to start PHP code, `<?` or `<?='` (which is used to echo back a string or variable) and the tag to end PHP code, `?>`. These tags are commonly used, but like ASP-style tags (`<%` or `<%=` and `%>`), they are less portable as they can be disabled in the PHP configuration. For this reason, the use of short tags and ASP-style tags is discouraged. The purpose of these delimiters is to separate PHP code from non-PHP code, including HTML.

Variables are prefixed with a dollar symbol and a type does not need to be specified in advance. Unlike function and class names, variable names are case sensitive. Both double-quoted ("" ) and heredoc strings allow the ability to embed a variable's value into the string. PHP treats newlines as whitespace in the manner of a free-form language (except when inside string quotes), and statements are terminated by a semicolon. PHP has three types of comment syntax: `/* */` serves as block comments, and `//` as well as `#` are used for inline comments. The echo statement is one of several facilities PHP provides to output text (e.g. to a web browser).

In terms of keywords and language syntax, PHP is similar to most high level languages that follow the C style syntax. *If* conditions, *for* and *while* loops, and function returns are similar in syntax to languages such as C, C++, Java and Perl.

#### **6.3.1.1.4 Data types**

PHP stores whole numbers in a platform-dependent range. This range is typically that of 32-bit signed integers. Unsigned integers are converted to signed values in certain situations; this behavior is different from other programming languages. Integer variables can be assigned using decimal (positive and negative), octal, and hexadecimal notations. Floating point numbers are also stored in a platform-specific range. They can be specified using floating point notation, or two forms of scientific notation. PHP has a native Boolean type that is similar to the native Boolean types in Java and C++. Using the Boolean type conversion rules, non-zero values are interpreted as true and zero as false, as in Perl and C++. The null data type represents a variable that has no value. The only value in the null data type is *NULL*. Variables of the “resource” type represent references to resources from external sources. These are typically created by functions from a particular extension, and can only be processed by functions from the same extension; examples include file, image, and database resources. Arrays can contain elements of any type that PHP can handle, including resources, objects, and even other arrays. Order is preserved in lists of values and in hashes with both keys and values, and the two can be intermingled. PHP also supports strings, which can be used with single quotes, double quotes, or heredoc syntax. The Standard PHP Library (SPL) attempts to solve standard problems and implements efficient data access interfaces and classes.

#### **6.3.1.1.5 Functions**

PHP has hundreds of base functions and thousands more from extensions. These functions are well documented on the PHP site, but unfortunately, the built-in library has a wide variety of naming conventions and inconsistencies. PHP currently has no functions for thread programming.

#### **Version 5.2 and earlier**

Functions are not first-class functions and can only be referenced by their name—directly or

dynamically by a variable containing the name of the function. User-defined functions can be created at any time without being prototyped. Functions can be defined inside code blocks, permitting a run-time decision as to whether or not a function should be defined. Function calls must use parentheses, with the exception of zero argument class constructor functions called with the PHP new operator, where parentheses are optional. PHP supports quasi-anonymous functions through the `create_function()` function, although they are not true anonymous functions because anonymous functions are nameless, but functions can only be referenced by name, or indirectly through a variable `$function_name()`;, in PHP.

### **Version 5.3 and newer**

PHP gained support for first-class functions and closures. True anonymous functions are supported

function `getAdder($x)` using the following syntax :

```
function getAdder($x)
{
    return function ($y) use ($x)
    { return $x + $y;
    };
}
$adder = getAdder(8);
echo $adder(2); // prints "10"
```

Here, `getAdder()` function creates a closure using parameter `$x` (keyword “use” forces getting variable from context), which takes additional argument `$y` and returns it to the caller. Such a function can be stored, given as the parameter to another functions, etc. For more details see Lambda functions and closures RFC.

#### **6.3.1.1.6 Objects**

Basic object-oriented programming functionality was added in PHP 3. Object handling was

completely rewritten for PHP 5, expanding the feature set and enhancing performance. In previous versions of PHP, objects were handled like primitive types. The drawback of this method was that the whole object was copied when a variable was assigned or passed as a parameter to a method. In the new approach, objects are referenced by handle, and not by value. PHP 5 introduced private and protected member variables and methods, along with abstract classes and final classes as well as abstract methods and final methods. It also introduced a standard way of declaring constructors and destructors, similar to that of other object-oriented languages such as C++, and a standard exception handling model.

Furthermore, PHP 5 added interfaces and allowed for multiple interfaces to be implemented. There are special interfaces that allow objects to interact with the runtime system. Objects implementing `ArrayAccess` can be used with array syntax and objects implementing `Iterator` or `IteratorAggregate` can be used with the `foreach` language construct. There is no virtual table feature in the engine, so static variables are bound with a name instead of a reference at compile time. If the developer creates a copy of an object using the reserved word *clone*, the Zend engine will check if a `__clone()` method has been defined or not. If not, it will call a default `__clone()` which will copy the object's properties. If a `__clone()` method is defined, then it will be responsible for setting the necessary properties in the created object. For convenience, the engine will supply a function that imports the properties of the source object, so that the programmer can start with a by-value replica of the source object and only override properties that need to be changed.

#### **6.3.1.1.7 Resources**

PHP includes free and open source libraries with the core build. PHP is a fundamentally Internet-aware system with modules built in for accessing FTP servers, many database servers, embedded SQL libraries such as embedded PostgreSQL, MySQL and SQLite, LDAP servers, and others. Many functions familiar to C programmers such as those in the `stdio` family are available in the standard PHP build. PHP has traditionally used features such as “`magic_quotes_gpc`” and

“magic\_quotes\_runtime” which attempt to escape apostrophes

(‘) and quotes (“) in strings in the assumption that they will be used in databases, to prevent SQL injection attacks. This leads to confusion over which data is escaped and which is not, and to problems when data is not in fact used as input to a database and when the escaping used is not completely correct. To make code portable between servers which do and do not use magic quotes, developers can preface their code with a script to reverse the effect of magic quotes when it is applied.

PHP allows developers to write extensions in C to add functionality to the PHP language. These can then be compiled into PHP or loaded dynamically at runtime. Extensions have been written to add support for the Windows API, process management on Unix-like operating systems, multibyte strings (Unicode), cURL, and several popular compression formats. Some more unusual features include integration with Internet Relay Chat, dynamic generation of images and Adobe Flash content, and even speech synthesis. The PHP Extension Community Library (PECL) project is a repository for extensions to the PHP language. Zend provides a certification exam for programmers to become certified PHP developers.

### **6.3.1.2 MY SQL**

#### **What is a database?**

Quite simply, it’s an organized collection of data. A database management system (DBMS) such as Access, FileMaker Pro, Oracle or SQL Server provides you with the software tools you need to organize that data in a flexible manner. It includes facilities to add, modify or delete data from the database, ask questions (or queries) about the data stored in the database and produce reports summarizing selected contents.

MySQL is a multithreaded, multi-user SQL database management system (DBMS). The basic program runs as a server providing multi-user access to a number of databases. Originally financed

in a similar fashion to the JBoss model, MySQL was owned and sponsored by a single for-profit firm, the Swedish company MySQLAB now a subsidiary of Sun Microsystems , which holds the copyright to most of the codebase. The project's source code is available under terms of the GNU General Public Licence, as well as under a variety of proprietary agreements.

MySQL is a database. The data in MySQL is stored in database objects called tables. A table is a collections of related data entries and it consists of columns and rows. Databases are useful when storing information categorically. A company may have a database with the following tables: "Employees", "Products", "Customers" and "Orders".

#### **6.3.1.2.1 Database Tables**

A database most often contains one or more tables. Each table is identified by a name (e.g. "Customers" or "Orders"). Tables contain records (rows) with data.

#### **6.3.1.2.2 Queries**

A query is a question or a request. With MySQL, we can query a database for specific information and have a record set returned.

##### **6.3.1.2.2.1 Create a connection to a database**

Before you can access data in a database, you must create a connection to the database. In PHP, this is done with the `mysqli_connect()` function.

#### **Syntax**

```
$con=mysqli_connect("servername", "username", "password", "db name");
```

Parameter	Description
servername	Optional. Specifies the server to connect to. Default value is "localhost:3306"
username	Optional. Specifies the username to log in with. Default value is the name of the user that owns the server process
password	Optional. Specifies the password to log in with. Default is ""

## Example

In the following example we store the connection in a variable (\$con) for later use in the script. The “die” part will be executed if the connection fails:

```
<?php $con=mysqli_connect("localhost", "root", "", "acrsdb");  
if(mysqli_connect_errno()){  
$con=mysqli_connect("servername", "username", "password", "db name");  
}?>
```

### 6.3.1.2.2.2 Closing a Connection

The connection will be closed automatically when the script ends. To close the connection before, use the `mysql_close()` function:

```
<?php $con=mysqli_connect("localhost", "root", "", "acrsdb");  
if(mysqli_connect_errno()){  
$con=mysqli_connect("servername", "username", "password", "db name");  
}  
Mysql_close();?>
```

#### 6.3.1.2.2.3 Create a Database

The CREATE DATABASE statement is used to create a database in MySQL.

##### Syntax

```
CREATE DATABASE database_name
```

To get PHP to execute the statement above we must use the `mysql_query()` function. This function is used to send a query or command to a MySQL connection.

#### 6.3.1.2.2.4 Create a Table

The CREATE TABLE statement is used to create a table in MySQL

##### Syntax

```
CREATE TABLE table_name
(
    column_name1 data_type,
    column_name2 data_type,
    column_name3 data_type,
    ....
)
```

#### 6.3.1.2.3 MySQL Functions

`mysqli_affected_rows` — Get number of affected rows in previous MySQL operation

`mysqli_change_user` — Change logged in user of the active connection

`mysqli_client_encoding` — Returns the name of the character set

`mysqli_close` — Close MySQL connection `mysqli_connect`

— Open a connection to a MySQL Server `mysqli_create_db`



— Create a MySQL database `mysqli_data_seek` — Move

internal result pointer `mysqli_db_name` — Get result data

`mysqli_db_query` — Send a MySQL query

`mysqli_drop_db` — Drop (delete) a MySQL database

`mysqli_errno` — Returns the numerical value of the error message from previous MySQL

operation `mysqli_error` — Returns the text of the error message from previous MySQL operation

`mysqli_escape_string` — Escapes a string for use in a `mysql_query`

`mysqli_fetch_array` — Fetch a result row as an associative array, a numeric array, or both

`mysqli_fetch_assoc` — Fetch a result row as an associative array

`mysqli_fetch_field` — Get column information from a result and return as an

object `mysqli_fetch_lengths` — Get the length of each output in a result

`mysqli_fetch_object` — Fetch a result row as an object

wmysql\_num\_rows — Get number of rows in result mysql\_pconnect —  
Open a persistent connection to a MySQL server

mysql\_ping — Ping a server connection or reconnect if there is no  
connection mysql\_query — Send a MySQL query

mysql\_result — Get result data mysql\_select\_db  
— Select a MySQL database mysql\_set\_charset  
— Sets the client character set mysql\_stat —  
Get current system status mysql\_tablename —  
Get table name of field mysql\_thread\_id —  
Return the current thread ID

mysql\_unbuffered\_query — Send an SQL query to MySQL, without fetching and buffering  
the result (*See Appendix 2 for more My\_SQL Functions.*)

### **6.3.1.3 Macromedia Dreamweaver 8**

Is a professional HTML editor for designing, coding, and developing websites, web pages, and web applications. Whether you enjoy the control of hand-coding HTML or prefer to work in a visual editing environment, Dreamweaver provides you with helpful tools to enhance your web creation experience.

The visual editing features in Dreamweaver let you quickly create pages without writing a line of code. You can view all your site elements or assets and drag them from an easy-to-use panel directly into a document. You can streamline your development workflow by creating and editing images in Macromedia Fireworks or another graphics application, then importing them directly into Dreamweaver, or by adding Macromedia Flash objects.

Dreamweaver also provides a full-featured coding environment that includes code-editing tools (such as code coloring and tag completion) and language reference material on Cascading Style Sheets (CSS), JavaScript, and ColdFusion Markup Language (CFML), among others. Macromedia Roundtrip HTML technology imports your hand-coded HTML documents without reformatting the code; you can then reformat code with your preferred formatting style. Dreamweaver also enables you to build dynamic database-backed web applications using server technologies such as CFML, ASP.NET, ASP, JSP, and PHP.

### **6.3.1.3.1 Dreamweaver and accessibility**

Accessibility refers to making websites and web products usable for people with visual, auditory, motor, and other disabilities. Examples of accessibility features for software products and websites include screen reader support, text equivalents for graphics, keyboard shortcuts, change of display colors to high contrast, and so on. Dreamweaver provides tools that make the product accessible and tools that help you author accessible content:

**Using Dreamweaver accessibility features** For Dreamweaver web designers who need to use accessibility features, Dreamweaver offers screen reader support, keyboard navigation, and operating system accessibility support. For more information, see [Using Dreamweaver accessibility features](#).

**Authoring for accessibility** For Dreamweaver web designers who need to create accessible content, Dreamweaver assists you in creating accessible pages that contain useful content for screen readers and comply with government guidelines.

Dreamweaver provides dialog boxes that prompt you to enter accessibility attributes when you insert page elements (see [Optimizing the workspace for accessible page design](#)). For example, the accessibility dialog box for images reminds you to add text equivalents for graphics. Then, when the image appears on a page for a user with visual disabilities, the screen reader reads the description.

### 6.3.1.3.2 Laying Out Pages with CSS

In Macromedia Dreamweaver 8, you can use CSS styles to lay out your page. You can either insert div tags manually and apply CSS positioning styles to them, or you can use Dreamweaver layers to create your layout. A layer in Dreamweaver is an HTML page element—specifically, a div tag, or any other tag—that has an absolute position assigned to it. Whether you use CSS, tables, or frames to lay out your pages, Dreamweaver has rulers and grids for visual guidance in your layout. Dreamweaver also has a tracing image feature, which you can use to re-create a page design that was created in a graphics application.

### Client-side role of forms

Forms support the client side of the client-server relationship. When a visitor enters information into a form displayed in a web browser (the client) and clicks the submit button, the information is sent to the server where a server-side script or application processes it. Common server-side technologies used for processing form data include Macromedia ColdFusion, Microsoft Active Server Pages (ASP), and PHP. The server responds by sending requested information back to the user (or client), or performing some action based on the form's contents.

*( Note : - See Appendix 1 for more about Macromedia Dreamweaver 8 and phpMyAdmin)*

### 6.3.1.4 phpMAdmin

**phpMyAdmin** is an open source tool written in PHP intended to handle the administration of MySQL over the World Wide Web. phpMyAdmin supports a wide range of operations with MySQL. Currently it can create and drop databases, create/drop/alter tables, delete/edit/add fields, execute any SQL statement, manage users and permissions, and manage keys on fields. while you still have the ability to directly execute any SQL statement. phpMyAdmin can manage a whole MySQL server (needs a super-user) as well as a single database. To accomplish the latter you'll need a properly set up MySQL user who can read/write only the desired database. It's up to you to look up the appropriate part in the MySQL manual.

## phpMyAdmin can:

- browse and drop databases, tables, views, fields and indexes
  - create, copy, drop, rename and alter databases, tables, fields and indexes
  - maintenance server, databases and tables, with proposals on server configuration
  - execute, edit and bookmark any SQL-statement, even batch-queries
  - load text files into tables
  - create and read dumps of tables
  - export data to various formats: CSV, XML, PDF, ISO/IEC 26300 - OpenDocument Text and Spreadsheet, Word, Excel and L<sup>A</sup>T<sub>E</sub>X formats
  - administer multiple servers
  - manage MySQL users and privileges
  - check referential integrity in MyISAM tables
  - using Query-by-example (QBE), create complex queries automatically connecting required tables
  - create PDF graphics of your Database layout
  - search globally in a database or a subset of it
  - transform stored data into any format using a set of predefined functions, like displaying BLOB-data as image or download-link
  - support InnoDB tables and foreign keys
  - support mysqli, the improved MySQL extension
-

### **A word about users:**

Many people have difficulty understanding the concept of user management with regards to phpMyAdmin. When a user logs in to phpMyAdmin, that username and password are passed directly to MySQL. phpMyAdmin does no account management on its own (other than allowing one to manipulate the MySQL user account information); all users must be valid MySQL users.

- 1) phpMyAdmin can compress (Zip, GZip -RFC 1952- or Bzip2 formats) dumps and CSV exports if you use PHP with Zlib support (`--with-zlib`) and/or Bzip2 support (`--with-bz2`). Proper support may also need changes in `php.ini`. a phpMyAdmin screen appears as shown below.

#### **6.3.1.4. 1 Requirements**

- o **PHP**
- o You need PHP 5.2.0 or newer, with session support and the Standard PHP Library (SPL) extension.
- o To support uploading of ZIP files, you need the PHP zip extension.
- o For proper support of multibyte strings (eg. UTF-8, which is currently default), you should install mbstring and ctype extensions.
- o You need GD2 support in PHP to display inline thumbnails of JPEGs (“image/jpeg: inline”) with their original aspect ratio
- o When using the “cookie” authentication method, the mcrypt extension is strongly suggested for most users and is required for 64-bit machines. Not using mcrypt will cause phpMyAdmin to load pages significantly slower.

### 6.3.1.5 Apache Web server

Often referred to as simply *Apache*, a public-domain open source Web server developed by a loosely-knit group of programmers. The first version of Apache, based on the NCSA httpd Web server, was developed in 1995.

Core development of the Apache Web server is performed by a group of about 20 volunteer programmers, called the *Apache Group*. However, because the source code is freely available, anyone can adapt the server for specific needs, and there is a large public library of Apache add-ons. In many respects, development of Apache is similar to development of the Linux operating system.

The original version of Apache was written for UNIX, but there are now versions that run under OS/2, Windows and other platforms. The name is a tribute to the Native American Apache Indian tribe, a tribe well known for its endurance and skill in warfare. A common misunderstanding is that it was called Apache because it was developed from existing NCSA code plus various patches, hence the name *a patchy server*, or Apache server.

Apache consistently rates as the world's most popular Web server according to analyst surveys. Apache has attracted so much interest because it is full-featured, reliable, and free. Originally developed for UNIX™ operating systems, Apache has been updated to run on Windows, OS/2, and other platforms. One aspect of Apache that some site administrators find confusing — especially those unfamiliar with UNIX-style software — is its configuration scheme. Instead of using a point-and-click graphic user interface (GUI) or Windows Registry keys as most other.

## Configuration Files

Apache uses a system of three text files for managing its configuration data. All three of these files (almost always) appear in Apache's `./conf` directory and are designed to be edited by system administrators:

1. `httpd.conf` for general settings
2. `srm.conf` for resource settings
3. `access.conf` for security settings

When Apache first starts, these files are processed in the order shown above. Originally, the initial installation of Apache included default entries within each of the three files. In the most recent versions of Apache, however, the default installation has changed. Now `httpd.conf` is treated as the “master” configuration file and it contains all of the settings. Both `srm.conf` and `access.conf` still exist in the installation, but they contain no settings and are empty except for some comments.

### Inside `Httpd.conf`

Traditionally `httpd.conf` contained general settings such as the `ServerName` and `Port` number. These entries appear as follows in the file: `ServerName compnetworking.about.com Port 80` The term “httpd” stands for *HTTP Daemon*. Recall that in a UNIX environment, the term *daemon* refers to a type of process designed to launch at system boot and continue running for very long periods of time. This file contains a number of other entries (technically called directives), but for most of these, modifications are optional. Probably the most useful of these entries is `ServerAdmin`.

### Access and Security Settings

It is recommended practice now for Apache administrators to manage their resource and security settings from `httpd.conf`. Administrators of older versions of Apache can simply cut their entries from `srm.conf` and `access.conf` and paste them into the master file. If an administrator wants to go one step further and delete the two empty files, they should also place the following entries in `httpd.conf` to prevent Apache from attempting to access them.



## **SYSTEM IMPLEMENTATION**

### **7.1 Introduction**

Implementation is the stage in the project where the theoretical design is turned into a working system and is giving confidence on the new system for the users that it will work efficiently and effectively. It involves careful planning, investigation of the current system and its constraints on implementation, design of methods to achieve the change over, an evaluation of change over methods. Apart from planning major task of preparing the implementation are education and training of users. The implementation process begins with preparing a plan for the implementation of the system. According to this plan, the activities are to be carried out, discussions made regarding the equipment and resources and the additional equipment has to be acquired to implement the new system. In network backup system no additional resources are needed.

Implementation is the final and the most important phase. The most critical stage in achieving a successful new system is giving the users confidence that the new system will work and be effective. The system can be implemented only after thorough testing is done and if it is found to be working according to the specification. This method also offers the greatest security since the old system can take over if the errors are found or inability to handle certain type of transactions while using the new system.

### **7.2 User Training**

After the system is implemented successfully, training of the user is one of the most important subtasks of the developer. For this purpose user manuals are prepared and handled over to the user to operate the developed system. Thus the users are trained to operate the developed system. Both the hardware and software securities are made to run the developed systems successfully in future. In order to put new application system into use, the following activities were taken care of:

- Preparation of user and system documentation

- . Conducting user training with demo and hands on
- . Test run for some period to ensure smooth switching over the system

The users are trained to use the newly developed functions. User manuals describing the procedures for using the functions listed on menu are circulated to all the users. It is confirmed that the system is implemented up to users need and expectations.

### **7.3 Security and Maintenance**

Maintenance involves the software industry captive, typing up system resources .It means restoring something to its original condition. Maintenance follows conversion to the extend that changes are necessary to maintain satisfactory operations relative to changes in the user's environment. Maintenance often includes minor enhancements or corrections to problems that surface in the system's operation. Maintenance is also done based on fixing the problems reported, changing the interface with other software or hardware enhancing the software.

Any system developed should be secured and protected against possible hazards. Security measures are provided to prevent unauthorized access of the database at various levels. An uninterrupted power supply should be so that the power failure or voltage fluctuations will not erase the data in the files.

Password protection and simple procedures to prevent the unauthorized access are provided to the users .The system allows the user to enter the system only through proper user name and password.

## **SYSTEM TESTING**

System testing is the stage of implementation, which is aimed at ensuring that the system works accurately and efficiently before live operation commences. Testing is the process of executing the program with the intent of finding errors and missing operations and also a complete verification to determine whether the objectives are met and the user requirements are satisfied. The ultimate aim is quality assurance.

Tests are carried out and the results are compared with the expected document. In the case of erroneous results, debugging is done. Using detailed testing strategies a test plan is carried out on each module. The various tests performed in “**Network Backup System**” are unit testing, integration testing and user acceptance testing.

### **8.1 Unit Testing**

The software units in a system are modules and routines that are assembled and integrated to perform a specific function. Unit testing focuses first on modules, independently of one another, to locate errors. This enables, to detect errors in coding and logic that are contained within each module. This testing includes entering data and ascertaining if the value matches to the type and size supported by java. The various controls are tested to ensure that each performs its action as required.

### **8.2 Integration Testing**

Data can be lost across any interface, one module can have an adverse effect on another, sub functions when combined, may not produce the desired major functions. Integration testing is a systematic testing to discover errors associated within the interface. The objective is to take unit tested modules and build a program structure. All the modules are combined and tested as a whole. Here the Server module and Client module options are integrated and tested. This testing provides the assurance that the application is well integrated functional unit with smooth transition of data.

### **8.3 User Acceptance Testing**

User acceptance of a system is the key factor for the success of any system. The system under consideration is tested for user acceptance by constantly keeping in touch with the system users at time of developing and making changes whenever requires.

# OUTPUT SCREENS

## Student Module

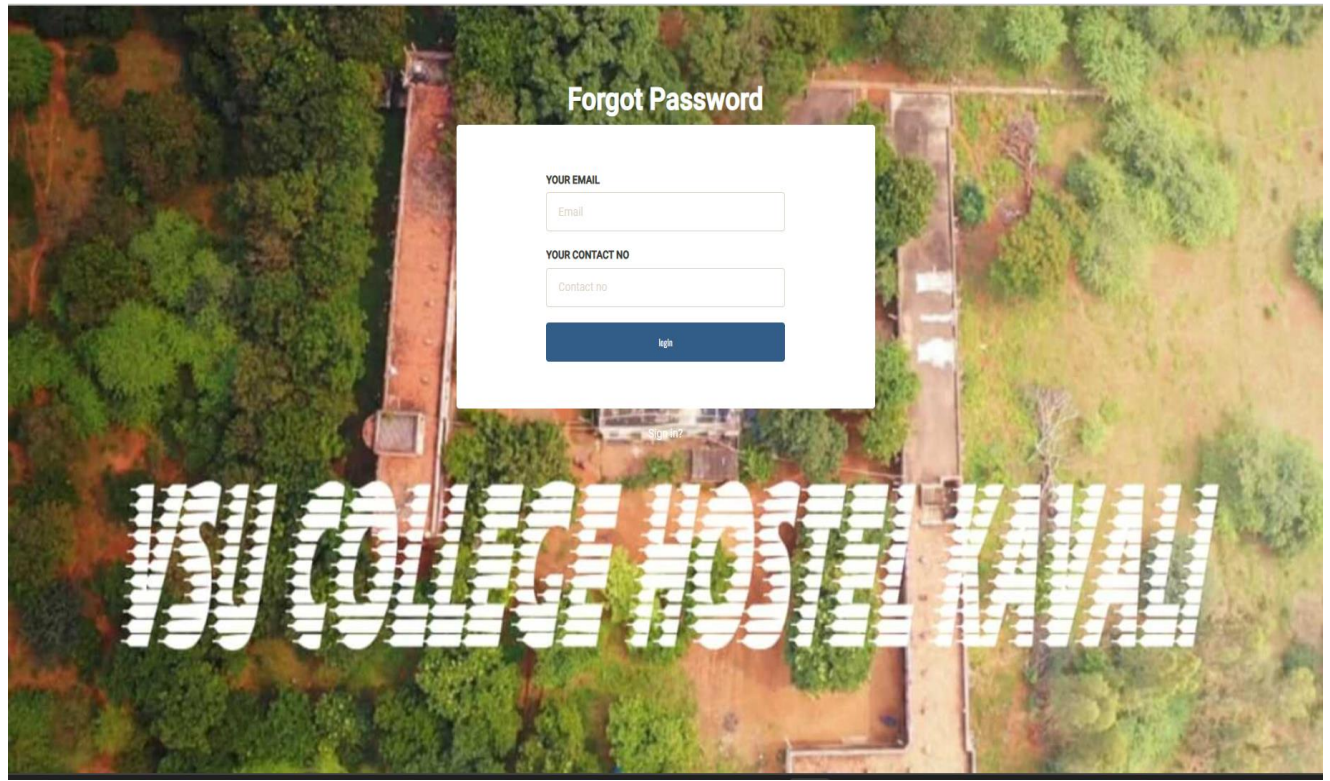
### Student Signup(Registration)

The screenshot displays the 'Student Registration' page of the VSU Hostel Management System. On the left, a dark sidebar contains a 'MENU' with links for 'Student Registration', 'Student Login', and 'VSU Admin Login'. The main content area is titled 'Student Registration' and features a 'FILL ALL INFO' section with the following fields: 'Registration No:', 'First Name:', 'Middle Name:', 'Last Name:', 'Gender:' (a dropdown menu currently showing 'Select Gender'), 'Contact No:', 'Email id:', 'Password:', and 'Confirm Password:'. At the bottom right of the form are two buttons: 'Cancel' and 'Register'.

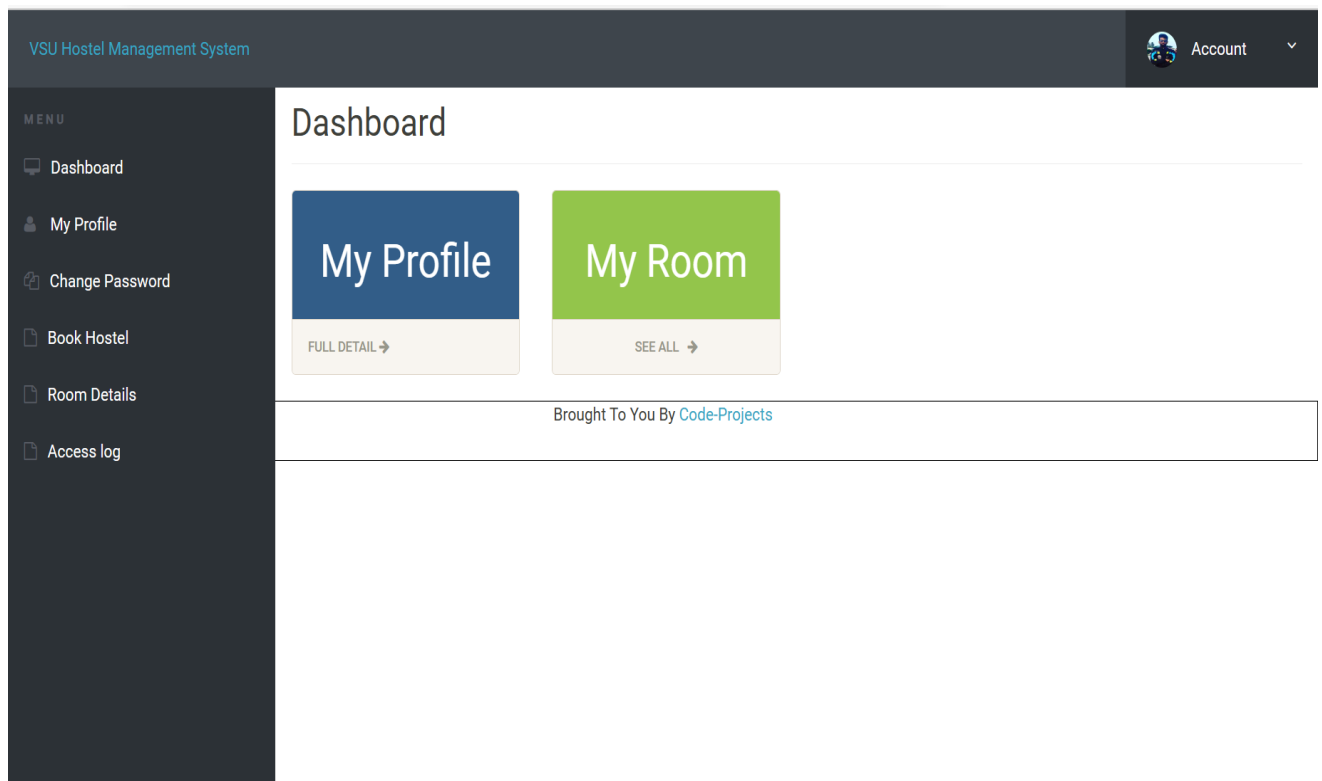
### Student Sign in

The screenshot shows the 'Student Sign in' page of the VSU Hostel Management System. The background is a photograph of a large, multi-story building with a red and white facade, surrounded by lush green trees and a clear sky. Overlaid on this image is a white login box with the title 'VSU Hostel Management System'. Inside the box, there are two input fields: 'EMAIL' (with a placeholder 'Email') and 'PASSWORD' (with a placeholder 'Password'). Below these fields is a blue 'login' button. A link for 'Forgot password?' is located below the login button. On the left side of the page, the same dark sidebar with the 'MENU' is visible.

## Student Password Recovery



## Student Dashboard



## Student Profile

VSU Hostel Management System

Account

MENU

Dashboard

My Profile

Change Password

Book Hostel

Room Details

Access log

Anand's Profile

LAST UPDATION DATE : 13-08-2023 04:34:19

Registration No :

108061211

First Name :

Anand

Middle Name :

Last Name :

Mummana

Gender :

male

Contact No :

8467067344

Email Id:

test@gmail.com

Update Profile

## Student Change Password

VSU Hostel Management System

Account

MENU

Dashboard

My Profile

Change Password

Book Hostel

Room Details

Access log

Change Password

LAST UPDATION DATE: 22-06-2016 05:16:49

old Password

New Password

Confirm Password

Cancel

Change Password

# Student Hostel Booking

Hostel Management System

Account

MAIN

- Dashboard
- My Profile
- Change Password
- Book Hostel
- Room Details
- Access log

## 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

Total Amount

### Personal info

course

Registration No :

First Name :

Middle Name :

Last Name :

Gender :

Contact No :

Email id :

Emergency Contact :

Guardian Name :

Guardian Relation :

Guardian Contact no :

### Correspondence Address

Address :

City :

State

Pincode :

### Permanent Address

☐ Permanent Address same as Correspondence address :

Address :

City :

State

Pincode :

Cancel

Register

## Student Booked Hostel Details

VSU Hostel Management System

Account

MENU

Dashboard

My Profile

Change Password

Book Hostel

Room Details

Access log

Rooms Details

ALL ROOM DETAILS

Room Realted Info

Reg no. :2016-06-23 17:24:35

Print Data

Room no :	100	Seater :	5	Fees PM :	8000
Food Status:	With Food	Stay From :	2016-06-17	Duration:	4 Months
Total Fee : 34000					

Personal Info Info

Reg No. :	108061211	Full Name :	codetestprojects	Email :	test@gmail.com
Contact No. :	8467067344	Gender :	male	Course :	Bachelor of Engineering
Emergency Contact No. :	8285703354	Guardian Name :	test	Guardian Relation :	test
Guardian Contact No. :	9999857868				

Addresses

Correspondense Address	H no- 18/1 Bihari puram phase-1 melrose bye pass Allgarh, 202001 EPE	Permanent Address	H no- 18/1 Bihari puram phase-1 melrose bye pass Allgarh, 202001 EPE
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## Student Access log Details

VSU Hostel Management System

Account

MENU

Dashboard

My Profile

Change Password

Book Hostel

Room Details

Access log

Access Log

ALL COURSES DETAILS

Show

10

entries

Search:

Sno.	User Id	User Email	IP	City	Country	Login Time
1	10	test@gmail.com				2016-06-22 11:46:42
2	10	test@gmail.com				2016-06-24 16:50:28
3	10	test@gmail.com	::1			2016-06-24 16:52:47
4	10	test@gmail.com	::1			2016-06-26 21:07:40
5	10	test@gmail.com	::1			2023-08-13 02:31:59
6	10	test@gmail.com	::1			2023-08-13 16:33:21
7	10	test@gmail.com	::1			2023-08-15 01:36:27
8	10	test@gmail.com	::1			2023-08-15 01:41:51
Sno.	User Id	User Email	IP	City	Country	Login Time

Showing 1 to 8 of 8 entries

PREVIOUS

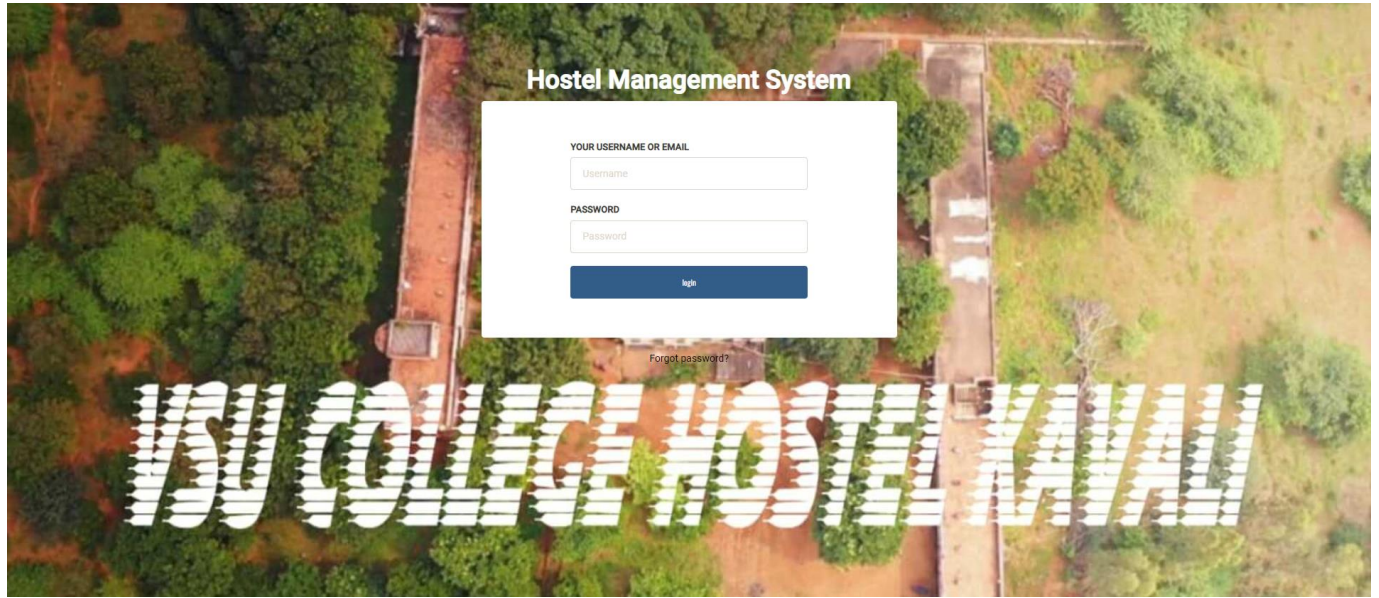
1

NEXT

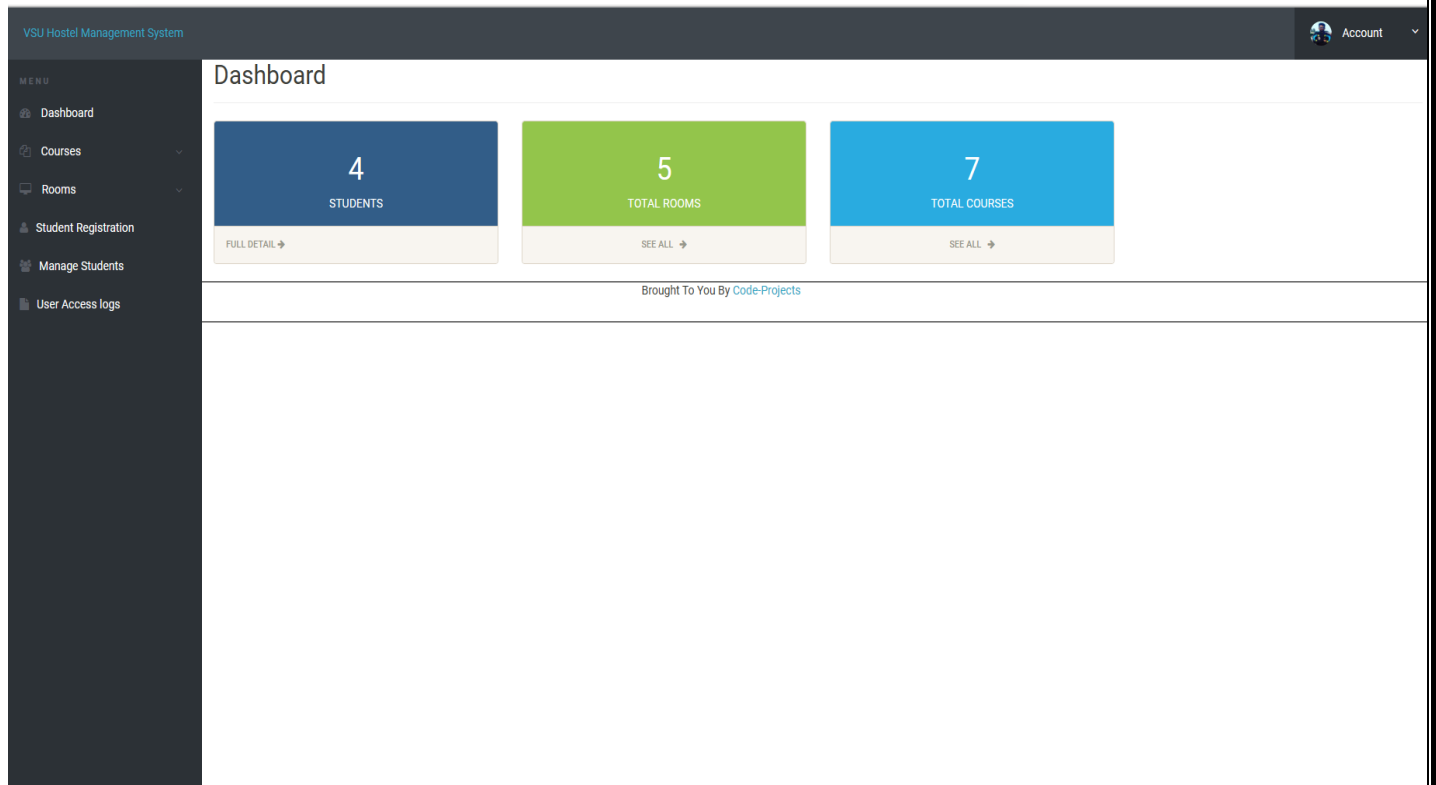


## Admin Module

### Admin Login



### Admin Dashboard





## Admin Manage Courses

VSU Hostel Management System

Account

MENU

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	MSC01	MSc	Master of Science	2023-08-15 01:54:36	<a href="#">✎</a> <a href="#">✕</a>
2	B10992	B.Tech	Bachelor of Technology	2023-08-15 01:57:15	<a href="#">✎</a> <a href="#">✕</a>
3	MBA03	MBA	Master of Business Administration	2023-08-15 01:57:56	<a href="#">✎</a> <a href="#">✕</a>
4	BSc04	BSc	Bachelor of computer science	2023-08-15 01:58:25	<a href="#">✎</a> <a href="#">✕</a>
5	MCA05	MCA	Master of computer applications	2023-08-15 01:58:56	<a href="#">✎</a> <a href="#">✕</a>
Sl No	Course Code	Course Name(Short)	Course Name(Full)	Reg Date	Action

Showing 1 to 5 of 5 entries

PREVIOUS

1

NEXT

## Admin edit Course Details

VSU Hostel Management System

Account

MENU

Dashboard

Courses

Rooms

Student Registration

Manage Students

User Access logs

### Edit Course

EDIT COURSES

Course Code

MSC01

Course Name (Short)

MSc

Course Name(Full)

Master of Science

Update Course

Showing 1 to 5 of 5 entries

## Admin add room

VSU Hostel Management System
Account

MENU

- Dashboard
- Courses
- Rooms
- Student Registration
- Manage Students
- User Access logs

### Add a Room

ADD A ROOM

Select Seater

Select Seater

Room No.

Fee(Per Student)

Create Room

## Admin Manage Rooms

VSU Hostel Management System
Account

MENU

- 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	5	100	2023-08-15 02:00:38	<a href="#">✕</a>
2	2	201	6000	2023-08-15 02:02:20	<a href="#">✕</a>
3	3	200	6000	2023-08-15 02:02:52	<a href="#">✕</a>
4	4	400	6500	2023-08-15 02:03:07	<a href="#">✕</a>
5	5	3	8000	2023-08-15 02:03:22	<a href="#">✕</a>
Sno.	Seater	Room No.	Fees (PM)	Posting Date	Action

Showing 1 to 5 of 5 entries
PREVIOUS 1 NEXT

## Admin Edit Room Details

VSU Hostel Management System

Account

Dashboard

Courses

Rooms

Student Registration

Manage Students

User Access logs

Edit Room Details

EDIT ROOM DETAILS

Seater

5

Room no

3

Room no can't be changed.

Fees (PM)

8000

Update Room Details

## Manage Registered Students

Hostel Management System

Account

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	Anujkumar	10806121	8285703354	100	5	2016-04-22	
2	Anujtestkumar	108061211	8467067344	100	5	2016-06-17	
3	rahulkumarSingh	102355	6786786786	112	3	2016-06-27	
4	Ajaykumar	586952	8596185625	132	5	2016-06-28	
Sno.	Student Name	Reg no	Contact no	Room no	Seater	Staying From	Action

Showing 1 to 4 of 4 entries

PREVIOUS1NEXT

## Registered Student Details

Student Information - Google Chrome
localhost/hostel/admin/full-profile.php?id=7

Test Kumar'S
**INFORMATION >>**
Reg Date : 2016-06-23 17:24:35

**Room Related Info >>**

ROOM NO : 100  
SEATER : 5  
FEES PM : 8000  
FOOD STATUS: WITH FOOD  
STAYING FROM: 2016-06-17  
DURATION: 4  
TOTAL FEE: 34000

**PERSONAL INFO >>**

COURSE: BACHELOR OF ENGINEERING  
REG NO: 108061211  
FIRST NAME: TEST  
MIDDLE NAME: TEST  
LAST: KUMAR  
GENDER: MALE  
CONTACT NO: 8467067344  
EMAIL ID: TEST@GMAIL.COM  
EMERGENCY CONTACT: 123456789  
GUARDIAN NAME: TEST  
GUARDIAN RELATION: TEST  
GUARDIAN CONTACT: 1236547890

**CORRESPONDENCE ADDRESS >>**

ADDRESS: NEW DELHI INDIA  
CITY: ALIGARH  
STATE: UTTAR PRADESH  
PINCODE: 202001

**PERMANENT ADDRESS >>**

ADDRESS: NEW DELHI INDIA  
CITY: DELHI  
STATE: DELHI (NCT)  
PINCODE: 202001  
STATE: DELHI (NCT)

Prints this Document
Close this document

## Admin User Access logs

VSU Hostel Management System

Account

M E N U

Dashboard

Courses

Rooms

Student Registration

Manage Students

User Access logs

Access Log

ALL COURSES DETAILS

Show 10 entries

Search:

Sno.	User Id	User Email	IP	City	Country	Login Time
1	10	test@gmail.com				2016-06-22 11:46:42
2	10	test@gmail.com				2016-06-24 16:50:28
3	10	test@gmail.com	1			2016-06-24 16:52:47
4	10	test@gmail.com	1			2016-06-26 21:07:40
5	20	Benjamin@gmail.com	1			2016-06-26 22:10:57
6	10	test@gmail.com	1			2023-08-13 02:31:59
7	10	test@gmail.com	1			2023-08-13 16:33:21
8	10	test@gmail.com	1			2023-08-15 01:36:27
9	10	test@gmail.com	1			2023-08-15 01:41:51
Sno.	User Id	User Email	IP	City	Country	Login Time

Showing 1 to 9 of 9 entries

PREVIOUS

1

NEXT

## CONCLUSION

To conclude the description about the project : The project, developed using PHP and MySQL is based on the requirement specification of the user and the analysis of the existing system, with flexibility for future enhancement.

The expanded functionality of today's software requires an appropriate approach towards software development. This hostel management software is designed for people who want to manage various activities in the hostel. For the past few years the number of educational institutions are increasing rapidly.

Thereby the number of hostels are 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 designing of computerized system that will be compatible to the existing system with the system which is more user friendly and more GUI oriented.



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