

# Class B.C.A 5<sup>th</sup> / 6<sup>th</sup> Sem Batch 2017

# PROJECT SYNOPSIS

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# **Introduction of the Project**

Hotel Management System is a software system where the management of entire hotel is computerized. The hotel management system is designed by using PHP language as the rich GUI for front end and SQL Server as the secured backend database.

In this project the details are maintained like customer details, reservation details, Booking details and billing details. The reservation process of reserving rooms for the customers, canceling the reserved rooms, booking the rooms, vacating the rooms, the restaurant management, billing process, etc all are computerized and the management is done without any difficulty.

The reports can be viewed completely and the head of the management daily or weekly or monthly can review it. For company auditing it will be more useful. This Proposed System will be interactive, faster and user-friendly for the end users. Using the hotel management system, the following activities can be performed.

# Objective of the Project

As the name specifies "HOSTEL MANAGEMENT SYSTEM" is a software developed for managing 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.

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

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

# **Software Requirements**

- XAMPP server
- Language Used
  - 1. Front End(User Interface) HTML 5, CSS, JAVASCRIPT
  - 2. **Server Language PHP** 5.5
  - 3. Backe End MYSQL

# Installation Steps(Configuration)

- 1. Download and Unzip file on your local system.
- 2. Put this file inside xampp/htdocs/.
- 3. Database Configuration

# Open phpmyadmin

Create Database "hostel".

Import database "hostel.sql"

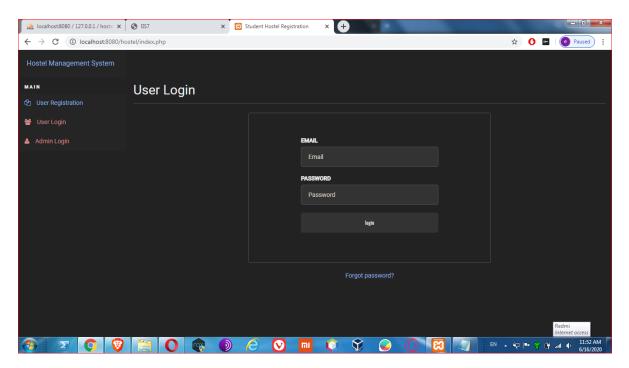
4. Open Your browser put inside browser "http://localhost/Hostel-management-system-Mysqli/"

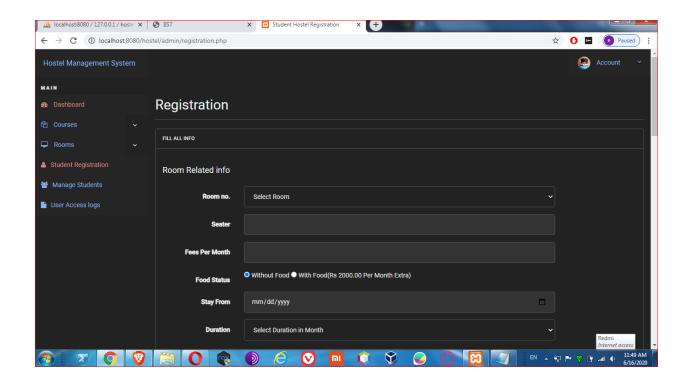
### **Admin Login Details**

To Login as admin put inside browser "http://localhost/Hostel-management-system-Mysqli/admin"

Login User: admin

Login Pass : root





# **Scope of Hostel Management System**

The proposed project Hostel management project is a computerized system. The use of this project in the hostel can reduce all the problems discussed above in the current manual hostel management system. The main objective of developing hostel management system is to save money and time. The proposed system generates following reports to help management of the hostel in decision making:

- Allocated Room report
- Unallocated Room Report
- Partially allocated room
- Student List (department wise)
- All student report

# **Project Planning:**

Software project plan can be viewed as the following:

1) Within the organization: How the project is to be implemented? What various constraints (time, cost, staff)? What is market strategy

2) With respect to the customer: Weekly or timely meetings with the custom with presentation on status reports. Customers feedback is also taken and fury modification and developments are done. Project milestones and deliverable are also presented to the customer

For a successful software project. the following steps can be followed.

Select a project

Identifying projects aims and objectives

Understanding requirements and specification

Methods of analysis, design and implementation

Testing techniques

Documentation

Project milestones and deliverables

**Budget allocation** 

Exceeding limits within control

**Project Estimates** 

Cost

Duration

**Resource Allocation** 

Hardware

Software

Previous relevant project information

**Digital Library** 

#### **EXISTING PLAN**

The existing plan is manual based and need lot of efforts and consume enough time. In the existing plan we can apply for the hostels online but the allotment processes are done manually. It may lead to corruptions in the allocation process as well as hostel fee calculation.

## **Background of the organization**

Hostel is a not a less than a home for students when staying away from their home. It has large well ventilated dormitories and single rooms and is situated in the school premises. Providing clean and calm hostel accommodation is one of the key responsible of school management. To manage the hostel facilities, a lot of data need to be maintained such as number of student hostel can accommodate, hostel rules and regulation, hostel fee, hostel in and out of student, guest and visitor record and so on. So, this need the system which has an ability to capture all kind of data and information and analysis it properly for smooth functioning of the hostel. Hostel warden can easily maintain the data. Hostel Management in schools often involves administering of all activities of students. All these still remains difficult and require some job for the top management. Hostel Management functions and responsibilities in modern day schools have always been a problem in managing, because of the manual system method of tools they use. Hostel Management System is well designed specially to meet challenges of administrative set up of any school. HMS can be used to assist in student's allocation, setup hostel information, hostel application, student outing record and visitor management. In short, this system will assist the staff in managing the hostel management at school

### PROPOSED SYSTEM

This project is aimed at developing a system for keeping records and showing information about or in a hostel. This system will help the hostel officer to be able to manage the affairs of the hostel. This system will provide full information about a student in the hostel. It will show rooms available or not and number of people in a particular room. This will also provide information on students who have paid in full or are still owing. This system will also provide a report on the summary detail regarding fees and bills students are owing. Also included is a user module for employees or the hostel officer. There will also be an administrator module which will accessed by the administrator and has the ability to delete, add and edit employee records. This system will be developed based on Software Development Life Cycle (SDLC) with PHP and My SQL server. PHP is good for the development and design of web based programs whiles My SQL is good for databases because of its security and its advanced features and properties.

# **Input And Output Requirement**

All the fields such as Hostel, Bed, Student Registration are validated and does take invalid values Each form for Hostel, Room, Facility can not accept blank value fields Avoiding errors in data Controlling amount of input Integration of all the modules/forms in the system.

Preparation of the test cases.

Preparation of the possible test data with all the validation checks

Actual testing done manually

Recording of all the reproduced errors.

Modifications done for the errors found during testing.

Prepared the test result scripts after rectification of the errors.

Functionality of the entire module/forms.

Validations for user input.

Checking of the Coding standards to be maintained during coding

Testing the module with all the possible test data.

Testing of the functionality involving all type of calculations etc.

Commenting standard in the source files.

#### **Current Problems**

Identification of the drawbacks of the existing system leads to the designing of a computerized system that will be compatible with the existing system with 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.

The most important problem is of the following crises:

- More human error.
- More strength and strain of manual labor needed.
- · Repetition of the same procedures.
- Low security without any authentication login.
- Data redundancy.
- Difficult to handle and update data.
- · Record keeping is difficult.

### SYSTEM ENVIRONMENT

Hardware Configuration
Pentium IV Processor
512 MB RAM
40GB HDD
1024\*768 Resolution Color Monitor

Note: This are not the "System Requirements".

#### **Software Configuration:**

OS: Windows XP 7/8/10

PHP Triad (PHP, MySQL, Apache, and PHPMyAdmin)

# **Hardware Requirements:**

Name of component Specification

Processor Pentium III 630 MHZ

RAM 128MB

Hard disk 20GB

Monitor 15"Color monitor

Keyboard 122 KEYS

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.

# **System Design of Hostel Management System**

In this phase, a logical system is built which fulfills the given requirements. Des phase of software development deals with transforming the clients's requirements in logically working system. Normally, design is performed in the following in the follow two steps:

# 1. Primary Design Phase:

In this phase, the system is designed at block level. The blocks are created the basis of analysis done in the problem identification phase. Different blo are created for different functions emphasis is put on minimising the informa flow between blocks. Thus, all activities which require more interaction are in one block

## 2. Secondary Design Phase:

In the secondary phase the detailed design of every block is performed. The general tasks involved in the design process are the following:

- 1. Design various blocks for overall system processes.
- 2. Design smaller, compact and workable modules in each block
- 3. Design various database structures.
- 4. Specific details of programs to achieve desired functionality.
- 5. Design the form of inputs, and outputs of the system.
- 6. Perform documentation of the design
- 7. System reviews

# **Database Dictionary:-**

This is normally represented as the data about data. It is also termed as metadata some times which gives the data about the data stored in the database. It defines elements data term encountered during the analysis and design of a new system. Data element can describe files or the processes

Following are some major symbols used in the data dictionary

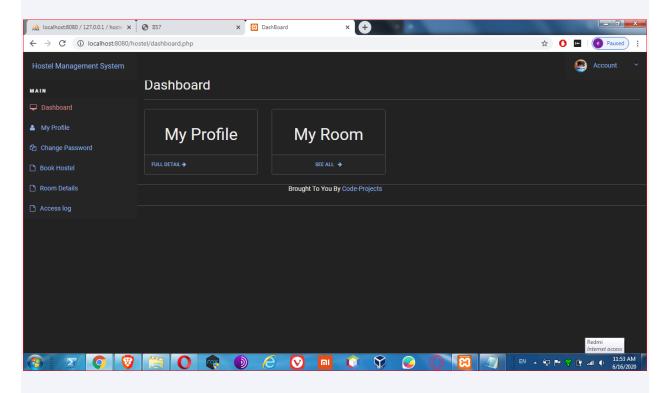
= equivalent to
+ and
[] either/ or
()Optional entry

Following are some rules, which defines the construction of data dictionary entries:

1. Words should be defined to understand for what they need and not variable need by which they may be described in the program

- 2 Each word must be unique. We cannot have two definition of the same client
- 3. Aliases or synonyms are allowed when two or more enters shows the same meaning. For example a vendor number may also be called as customer number
- 4. A self-defining word should not be decomposed. It means that the reduce of any information in to subpart should be done only if it is really required that is it is not easy to understand directly

Data dictionary includes information such as the number of records in file frequency a process will run, security factor like pass word which user must end to get excess to the information.



# **Entity Relationship Diagram**

E-R Model is a popular high level conceptual data model. This model and its variation are frequently used for the conceptual design of database application and many database design tools employ its concept.

A database that confirms to an E-R diagram can be represented by a collecton of tat in the relational system. The mapping of E-R diagram to the entities are:

Attributes

Relations

Many-to-many

Many-to-one

One-to-many

One-to-one

Weak entities

Subtype and supertype

The entities and their relationships between them are shown using the following conventions

An entity is shown in rectangle.

A diamond represent the relationship among number of entities:

The attributes shown as ovals are connected to the entities or relationship. Model is an abstraction process that hides super details while

ASean document highlighting details relation to application at end.

A data model is a mechanism that provides this abstraction for database application.

Data modeling is used for representing entities and their relationship in database Entities are the basic units used in modeling database entities can have concrete existence or constitute ideas or concepts.

Entity type or entity set is a group of similar objects concern to an

Organization for which it maintain data

Properties are characteristics of an entity also called as attributes A key is a single attribute or combination of 2 or more attributes of an entity set is used to identify one or more instances of the set entity set is used to identity one or more instances of the set

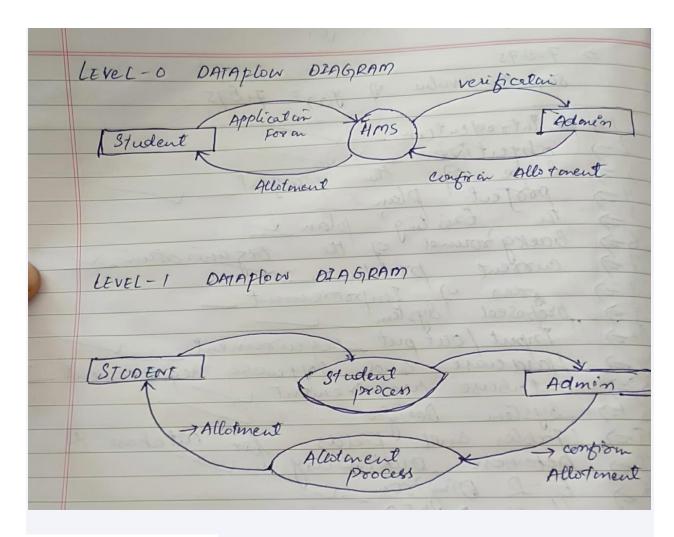
In relational model we represent the entity by a relation and use tuples

Represent an instance of the entity.

Relationship is used in data modeling to represent in association between an entity set.

An association between two attributes indicates that the values of the associated attributes are independent.

### **DATAFLOW DIAGRAM**



# **SECURITY**

The biometric system plays the most important role in this current century. Finger print identification is one among the foremost distinguished and familiar identity verification system due to its individuality. Security within the hostel is one of the foremost repetitive issues. To keep up day by day attendance verification is sophisticated and time consuming system for the hostel management. There are number of existing attending systems are available for college students, for hostel students it must improve. Within the existing system wardens are manually maintain the attendance for hostel students. This paper deals with, avoid of an entire problem in hostel management system together with this monitoring system also proposed. The administrator of this system was college principal or warden. Biometric system is used to accommodate a large number of students within the hostel. This system makes automatically to monitor the entry and exit of students from hostel and offers alert SMS to parents for their safety.

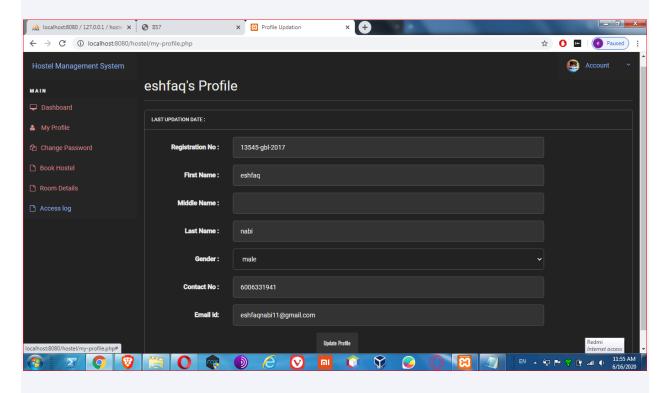
# **Future Scope of the Project:**

In a nutshell, it can be summarized that the future scope of the project circle around maintaining information regarding:
We can add printer in future.

We can give more advance software for Hostel Management System include more facilities We will host the platform on online servers to make it accessible worldwide Integrate multiple load balancers to distribute the loads of the system Create the master and slave database structure to reduce the overload of database queries Implement the backup mechanism for taking backup of codebase and database on regular basis on different servers

The above mentioned points are the enhancements which can be done to increase the applicability and usage of this project. Here we can maintain the records of Ho and Room. Also, as it can be seen that now-a-days the players are versatile, Le there is a scope for introducing a method to maintain the Hostel Management System Enhancements can be done to maintain all the Hostel, Room, Bed, Student Registration

We have left all the options open so that if there is any other future requirement in the system by the user for the enhancement of the system then it is possible implement them. In the last we would like to thanks all the persons involved in development of the system directly or indirectly. We hope that the project will serve purpose for which it is develop there by underlining success of process.



#### CONCLUSION

To conclude the description about the project, the project, developed using PHP with MySQL is based on the requirement specification of the user and the analysis of the existing system, with

flexibility for future enhancement. HOSTEL MANAGEMENT SYSTEM is very useful for hostel allotment and mess fee calculation. This hostel management software is designed for people who want to manage various activities in the hostel. For the past few years the numbers of educational institutions are increasing rapidly. Thereby the numbers 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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