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# Hostel Management System

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***Abstract:*** *Software developed to oversee various hostel activities is the "**HOSTELMANAGEMENT SYSTEM**." For the beyond couple of years the quantity of instructive establishments is expanding quickly. As a result, the number of student housing options for this institution's students is also growing.As a result, running the hostel puts a lot of pressure on the person who runs it, so software is rarely used in this situation. This project addresses issues associated with hostel management and avoids issues that arise when manual tasks are carried out. The design of a computerized system that is compatible with the existing system and that is more user-friendly and GUI-oriented results from identifying the shortcomings of the current system. We can overcome the shortcomings of the existing system by increasing its efficiency. Both the front- end and back-end of this project will be developed using MySQL. Separately manage the students on the waiting list and the hostellers; • Process theallotment list. Administrator can email the endorsement warning to each supported understudy. When the allotment is confirmed by the administrator, the student's information is automatically added to the hosteller's record and deleted when vacation is taken or after the course ends. Understudies can enroll their protests. Administrator can alter notice board and every understudy can see it. The hostel secretary has the ability to edit the mess menu and calculate the hostel fee. • Hostellers have access to the status of each month's hostel fee.*

***Key Word:*** *Computerized system, GUI-oriented.*

## I.INTRODUCTION

In the board gives on thought regarding how the understudy's subtleties, room distribution, wreck consumption are kept up with in the specific concern. A few unique features are also included in the hostel management system. The administration has each member's and students' individual identities. The stock management has also kept track of the mess expenditure, which wasused to figure out each student's mess bills. This project's modules are student information, attendance information, room information, and mess information. MYSQL serves as the backend and PHP serves as the front end. One of the driven programming languages is Visual Basic. For creating excellent professional software, the application wizards, menu editor, anddata reports, among other tools, are extremely helpful.

## II.RELATED WORK

**Modeling the Relationship between Perceived Value, Customer Satisfaction, And Customer Loyalty in Youth Hostel: An Empirical study**

Xiaohong Chen et.al has proposed this framework with the notoriety of youth lodgings, this paper investigates the variablesinfluencing consumer loyalty and dependability to youth inns with way demonstrating. This study targets researching client saw esteem with a complex design of five aspects, and afterward further dissect the relationship among youth inn saw esteem, youth lodgings fulfillment and youth inns reliability. Results demonstrate that stylish, epicurean and area aspects emphatically affect consumer loyalty, while cost and eminence are not significant elements influencing consumer loyalty. Besides, consumer loyaltywas found that it had a straight forwardly relationship with client dedication. The outcome likewise proposed that the chiefs of youth lodgings can deal with their inn as per the five elements of seen esteem gave in this paper.

**A Proposed Model Based On Modern Requirements to Optimize Hostel Resources in Oman**

Alla Khamis et.al has proposed this framework There are almost 18 schools and colleges in Muscat, for example, Center East School, Oman The travel industry School, Middle Easterner Open College, Ruler Qaboos College and numerous others. The understudies come from various urban communities/nations in Oman as a result of that the Inn becomes one of the fruitful organizations running nowadays. The point of this exploration is to study and propose a Cutting edge framework for the understudy's lodging. This framework will cook the necessities of proprietors, representatives, understudies and guardians, wherethey will actually want to deal with the exercises of the lodging in more dynamic manner and quick. Right now the vast majorityof them, they utilize manual framework to store their information and all the movement which should be store and reuse are in papers this information or record can be lost, for this situation the representatives cannot look through about the accessible rooms and subtleties of the occupants. What's more, there are numerous computation processes they should be clear about it, for example, the charges where in the papers they did many slip-ups. Be that as it may, the cycle, for example, add

new records, update records, erase records and looking for explicit records need and invest a ton of energy, so this framework will assist themwith having genuine and quick outcome to further develop the work in the inn. Making reports and offer them with guardians area piece of their troubles.

**Merit2u: An Iot-Based Merit Point Management System For University Students' HostelApplication**

Iskandar Ishak et.al has proposed this framework Merit2U is an electronic framework to oversee merit focuses for understudies' school application. This framework gives better legitimacy point the executives where the focuses are determined naturally and electronically utilizing online application. Arrangement of inn or schools in college for understudies' requirements legitimate component as the quantity of understudies selected are dependably higher than the quantity of spot to remain presentedby the college. Consequently, colleges generally favor dynamic under studies to remain in the college inn or schools. Merit based approach has forever been the means for college to check the animation of understudy in exercises or occasions coordinated by the college. Be that as it may, legitimate administration of legitimacy based assessment is required as certain colleges actually utilize manual or paper-based merit the executives. In this paper, we proposed an IoT- based merit the board framework called Merit2U. Merit2U is framework where it deals with the legitimacy focuses for college understudies electronically and it helps college theboard to assist understudies with effectively applying for position in the college's lodgings or universities.

**Deter-B: the New Amazon near Real-Time Deforestation Detection system**

Cesar Guerreiro Diniz et.al has proposed this framework The Brazilian Lawful Amazon (BLA), the biggest worldwide rainforest on the planet, contains almost 30% of the rainforest on the planet. Given the local intricacy and elements, there are huge government ventures zeroed in on controlling and forestalling deforestation. The Public Organization for Space Exploration (INPE)is presently creating five integral BLA observing frameworks, among which the close to continuous deforestation location framework (Dissuade) succeeds. Hinder utilizes MODIS 250 m symbolism and practically every day return to, empowering an early admonition framework to helper co naissance and control of deforestation. The point of this paper is to introduce the philosophy and aftereffects of the Stop in light of AWIFS information, called Dissuade B. Upheld by 56 m pictures, the new framework is viable in distinguishing deforestation more modest than 25 ha, concentrating 80% of its all out recognitions and 45% of the complete planned region here. It additionally presents higher identification ability in recognizing regions somewhere in the range of 25 and 100 ha. The region assessment per district is measurably equivalent to those of the authority deforestation information (PRODES) and permits the distinguishing proof of debasement and logging designs not saw with the conventional Prevent framework.

**Implementation of Energy Conservation and Management Activities And Its Economics In Ori Boy's Hostel- A Case Study**

Mr. S. Siva Sakthi Velan et.al has proposed this framework In spite of the fact that energy preservation and the board plays had a significant impact for further developing the energy productivity in non-industrial nations. In India, ventures are chiefly centered around the energy preservation and the board. Instructive foundations/private/government inns and lodgings have not completely carried out the energy preservation and the executives (ECM) measures. This paper centers around the energy preservation and the executives approach, without influencing the quality and amount of electrical and warm burden in kid's lodging at The Gandhigram Rustic Establishment (GRI) - Considered College. The GRI wreck is independently furnished with Electrical Help Association from Tamilnadu Power Board (TNEB) and nuclear power required forthe cooking has been provided by Wood taking care of Kettle and LPG. Also, DG put has been given together to help at the hour of force disappointment. The electrical burden and warm heap of evaporator cooking of wreck can be ideally repaid through Cogeneration consolidated cyclestrategy. By integrating this strategy, Wood utilization for evaporator will be kept away from. Notwithstanding this power utilization from TNEB is decreased. Monetary concentrate on supplanting LPG gas cooking by Biogas is likewise finished. This paper examine about the financial reserve funds after the execution of Cogeneration. Also, the financial methodology is stretched out for the moreover ECM approach in GRI wreck (supplanting of fluorescent cylinder lights with Drove tube lights). This paper likewise talks about the financial impact of cogeneration by moreover ECM approach and in general financial matters and execution later and prior to carrying out ECM exercises.

**Existing System**

The current system is manual, requires a lot of effort, and takes a lot of time to use. The current system allows us to apply online for hostels, but the allotment procedures are carried out manually. Corruption in the allocation process and the calculationof hostel fees may result. The calculation of mess and the registration of complaints are not handled by the current system. As a result, computers are used for that work. The current system is manual, requires a lot of effort, and takes a lot of time. Corruption in the allocation process and the calculation of hostel fees may result. The calculation of mess and the registration of complaintsare not handled by the current system.

- More human power is required
- Manual labor requires more strength and exertion
- The same procedure must be repeated.
- Lack of safety
- Data duplication
- It's hard to update the data

- Creating backup data is simple

**Proposed System**

There are numerous advantages to the proposed system over the current one. It works very well and requires less overhead. The proposed framework manages the wreck estimation and distribution process proficiently. should make it easy for the user to change, delete, and view any particular record. In order for officials to keep track of the records, the system should have the necessary security features. All reports, which are created for managerial purposes, ought to contain the necessary data.

- Keep the students on the waiting list and those on the hosteller list separate
- Each approved student can receive an email notification of the approval from admin.
- When the allotment is confirmed by the administrator, the student's information is automatically added to the hosteller's record
- And deleted when vacation is taken or after the course ends.
- Understudies can enroll their protests.
- Administrator can alter notice board and every understudy can see it.
- The hostel secretary has the ability to edit the mess menu and calculate the hostel fee
- Hostellers have access to the status of each month's hostel fee.

**File Design**

The menus for various operations are located in this system. For the purpose of displaying information about the Remote Monitoring System, menus and files are created. The command buttons are also part of the user interface on this system. The process of designing a machine- oriented format for the various inputs is called file design.

The primary objective is to avoid operator errors and create an intuitive input layout. The expanded data flow diagram identifies logical data flows, data stores, sources, and destinations during the system design phase. The program's flow is specified in a system flowchart. The input data are gathered and grouped into similar groups. After that, suitable input media are chosen for processing.

**Output Design**

The output design is an additional crucial aspect that separates the screen for each purpose. Check the appendix. Data entry is made simpler and more accurate by the screen's separate design, preventing confusion and errors. The purpose of the outputs has been established, and the usefulness of the information contained ought to be evaluated and adapted. The majorityof these guidelines are applicable to both paper and screen outputs. Because the client views the output as the system, output design is frequently discussed before other design aspects. When a client pays for a development project, they are buying output.Output is provided by processes, databases, and inputs.

The framework gives the Guaranteed Intentional Result and it significant to client. Additionally, it guarantees timely delivery and appropriate quantity. Login form If the username and password are entered incorrectly, the login procedure will fail. If bothare correct, it indicates that the login is successful only for those two.

When the send button is pressed, the details of the dispatcher, visitor, address, contact number, company name, designation, thepurpose, date, time, remarks, and whom to meet are successfully saved. By clicking the clear button, you can clear all of the controls above. The new button creates a new entry, and the log out button logs the user out.

Send message and Visitor Information The form that is used to send the message by clicking the button is the send message form. Here, the sending of the response is done. If the user selects a date and clicks "Submit," the visitor data will be included inthe report.

The link that directs users to the following section is called Help & User Manager Help. The user manager displays the information of all permitted users.

**Database Design**

A database management system, also known as a DBMS, is made up of programs that can access a collection of related data. When it comes to retrieving and storing database data, DBMS provides an environment that is not only user-friendly but alsohighly effective. Databases change over time as new data is added and taken away. An instance of the database is a collection ofinformation stored in the database at a specific time.

- Simple to learn and use
- Independence from data
- More data at lower cost
- Truthfulness and honest
- Coming back from failure
- Protection and security
- Efficiency

The main thought in planning the data set is the manner by which data will be utilized. The following are the primary goals of database design

**Integration of Data:**

Information from multiple files is coordinated, accessed, and processed in a database just like it isin a single file. Although the data are logically centralized, they may physically be distributed across a variety of devices connected by data communication facilities.

**Integrity of Data:**

Information uprightness implies putting away all information in one spot just and how every application to get to it. One update is sufficient to change the record status for all applications that use it, resulting in more consistent information. As a result,there is less redundant data; duplicate data items are not required; a decrease in the need for storage with direct access.

**Modules Description admin**

The admin profile contains the username, password, email ID, registration date, and date of profile update. Students' registration and management of the students' lists and log rooms are details that the admin can add, and you can edit and view thedetails in the reports.

**User Module**

The user module of the hostel management system contains the profile of each individual student, which can be viewed in the dashboard of the user module under room details. The total number of students, rooms, and courses are listed in the dashboard menu.

**Reports**

The reports show that the admin's details, as well as other details like the student's name, regno, contact number, room number, and staying details, can be viewed and uploaded. Other features include the ability to change the password and update the user's personal information. The user can also view room details like room number, please per month, and food status duration. The reports are utilized to profit from the subtleties refreshed by the administrator.

System testing is the most crucial phase of the system development life cycle. The system specifications and the design time frame both influence the number and nature of errors in a newly designed system.

Although each subsystem functions independently, a newly designed system should have all subsystems working together. During this phase, all of the subsystems are combined into a single pool and tested to see if they meet the needs of the user.

There are two levels of testing: testing of individual modules and testing of the system as a whole. The system is experimented with during system testing to guarantee that the software will function as intended and in accordance with the specifications. Each test case is created with the intention of detecting system processing errors.

Because testing is so crucial to determining software's reliability and effectiveness, it is a crucial stage in software development.There are multiple levels of software testing. Integration testing and acceptance testing make up these two types of testing:unit testing and system testing.


*FIG 1.1 DATA FLOW DIAGRAM*

Acceptance Testing, System Testing, Unit Testing, and Integration Testing Unit Testing is the initial level of testing. The integration-generated specifications are compared to the various modules. This is finished to test the inward rationale of everymodule. Those subsequent from the collaboration between modules are at first kept away from. In addition, the received input and the produced output are examined to see if they fall within the anticipated range of values. Beginning with the smallest andlowest modules, unit testing is carried out one module at a time.

The modules and routines that are assembled and integrated to perform a particular function are the units that make up a system. The logic used in the programs is checked for accuracy, and coding errors are found. Every one of the modules was tried and mistakes are redressed. After that, it was found that they worked as intended.

Errors that were missed in previous tests are found during system testing. This includes validation of the entire system as the user uses it in the operational environment and forced system failures. Low transaction volumes are typically based on live data during this testing. This volume is increased until each transaction type reaches its maximum level. In addition, after a number of major failures, the system as a whole is tested for recovery to ensure that no data are lost.

**Incorporation Testing**

In coordination testing, the tried modules are consolidated into sub-frameworks, which are then tried. The purpose of integration testing is to determine whether modules can be properly integrated by focusing on the interfaces between them. The various modules were connected together and mix testing done on them.

**Acceptance Testing**

The acceptance test aims to inform the user of the system's validity and dependability. It checks to see if the system works as intended and maintains the integrity of crucial data. For the system to work well, user motivation is very important.

Every one of the modules was tried exclusively utilizing both test information and live information. After every module was discovered that it was working accurately and it had been "coordinated" with the framework. Once more, the whole system was put to the test. We are testing the system with a variety of users. To ensure that the software functions

properly, acceptance testing is carried out using actual data supplied by the client. The system's external behavior is the primary focus of this test. After entering the data, acceptance testing was carried out.

**Table Name:** Log Details

**Purpose of the Table**: It Is Used To Login in The Application

**Primary Key**: Login

| FIELDNAME | DATATYPE | WIDTH | DESCRIPTION |
|---|---|---|---|
| Username | Varchar | 20 | User Name |
| System Name | Varchar | 200 | System Name |
| Login Date | Varchar | 15 | Login Date |
| Login Time | Varchar | 15 | Login Time |
| Logout Time | Varchar | 15 | Logout Time |

System implementation is the phase of the project in which the theoretical design becomes a functioning system. In this way itvery well may be viewed as the most basic stage in accomplishing a fruitful new framework and in giving the client, certaintythat the new frame work will work and be compelling.

The implementation phase entails meticulous planning, investigation of the existing system and its implementation constraints,method design and evaluation, and the transition itself.

The process of putting a new system design into action is known as implementation. In order to install a candidate system, thisphase focuses on user training, site preparation, and file conversion. Keeping the organization's operations unaffected during theconversion is the most important consideration here.

## III.SYSTEM TESTING

System testing is the most crucial phase of the system development life cycle. The system specifications and the design time frame both influence the number and nature of errors in a newly designed system.

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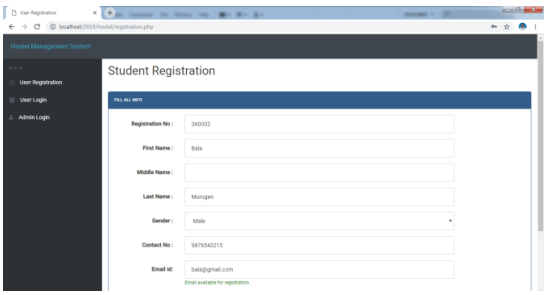


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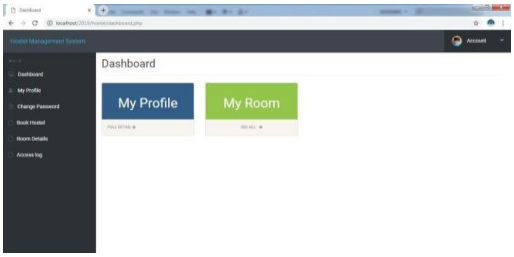


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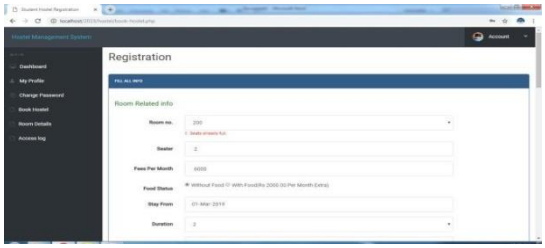


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## IV.FUTURE ENHANCEMENT

The application can be improved further so that the website functions in a more attractive and useful manner than it does now. In the future, we will develop software that can change the communication between the reception section and the internal office into wireless communication and store the conversation between the visitor and the internal officer as video streams.

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