

Hostel Management System and Aggregation

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Abstract—Hostel Management is a web-application which is created for booking the hostels for individual. This will limit manual work and also make hostel allocation so much easier for students and hostel administrators. It manages data in database and retrieve it whenever required. We design this system on the request of the hostel management, through this they cannot require people to handle and calculate the things. The developed system overcomes the drawbacks of manual hostel management its said to be more user-friendly, GUI oriented, reliability, efficient and secured with access control mechanisms. The old techniques with limitations have impacted educational systems. Hence we are developing one. Technologies like bootstrap will be used. Considering all the requirement as per hostel need Web app will be build which will work on both IOS and Android.

Keywords— *hostel management, manual, reliable, efficient*

I. INTRODUCTION

The Hostel management system will be developed by us students we will be using frameworks, databases, and many practices to complete our project. To start with a base we will be using HTML, CSS, Js, PHP, MySQL, Bootstrap and much more[1][12][13][11]. HTML: Hyper Text Markup Language, which is the basic to create GUI.

CSS: CSS is Cascading Style Sheet which will be used for making pages more attractive and add designs to it in a creative way. In CSS there are three types namely Inline Internal External.

JavaScript: JS is a client side scripting language. Its used to make dynamic web pages and add multiple features.

PHP: general-purpose scripting language especially suited to web development.

MySQL: MySQL is open-source database management system. It has a relational database.

Bootstrap[13]: Bootstrap is a framework which is free and uses css for beautiful responsive websites.

II. LITERATURE SURVEY

In this literature survey we researched for multiple sites for hostel management and came across few which were similar to what we needed. We have listed the survey to research for our project, using this survey we will be able to add and make changes to our project step by step. The project has been

equally divided and completed by all three member of the group. Below is the details of the sites of hostel management we have listed 10 of them:

- A. Development of an automated hostel facility management system K Ayanlowo, O Shoewu, SO Olatinwo Journal of Science
- B. hostel management and affordable university students' housing in Buea, Cameroon CM Wanie, EEE Oben, JM Molombe International Journal of 2017
- C. Online hostel management system J Yadav, V Maurya, M Ojha - Int. J. Comput. Sci. Eng. 2016.
- D. Online Hostel Management System K Changwony - 2015 - ir-library.mmarau.ac.ke
- E. **Cloudbeds**

[2].It is the simplest and most reliable system. □ Pros and cons- Cloudbeds is a software which is quite reliable and has new updates frequently good customer service too. Features are as follows: Drag-drop system calendar for booking Reservation system Room and bed assignments Reservation import & export csv Customizing taxes, fees and policies, etc Reservation source tracking ,etc Dashboard.

1. Drag-drop system calendar for booking
2. Reservation system
3. Room and bed assignments
4. Reservation import & export csv
5. Customizing taxes, fees and policies, etc
6. Reservation source tracking ,etc
7. Dashboard

F. **Cubilis:**

[3].The Cubilis platform displays changes in room availability and pricing, real-time price comparisons with other travel booking websites, and reviews from selected guests, optimizing the booking process for customers. It comes with a channel manager which facilitates connection with third-party systems such as property management, global distribution, revenue management, office automation, payment processing, reputation management, and more. Plus, managers can list properties on a customizable website and analyze reports/statistics to measure performance. Pros and cons: It has

been great and is very easy to navigate the system. Would not change for any other. The lay-out and the idea behind it go easily together, in this way it makes a logical and functional system. Cubilis does not have a App version for on the phone or tablet yet

1. Budgeting & Forecasting
2. CRM
3. Channel Analytics
4. Extended Stay
5. Front Desk Management
6. GDS/OTA Integration
7. Group Management
8. Guest Experience Management
9. Housekeeping Management

G. WebRezPro:

[4]. WebRezPro's is online room booking systems for corporates, solos but its mostly for business purposes, so it can be in the hostel category too. □ Pros And Cons: Good support and live people for customer service. They also offer a seasonal rate.

1. Reservation and activity packages
2. Reserved allocations
3. Group bookings
4. Housekeeping reports
5. Investor payout statements
6. Vacation rental owner payouts
7. Reservation reports
8. Automatic web page creation
9. Customizable hostel setup
10. Customizable campsite setup
11. Product, service, and activity charges
12. Activity Logging
13. Availability Management.

H. Edsine:

[5]. Edsine is specially build for schools and colleges with hostel facilities. Edsine provides schools the flexibility of customizing Edsine (by adding additional fields themselves) and connecting to various 3rd party tools like Content Providers and on-line payment systems, RFID/Bio-metric devices, Reporting Tools, etc.

1. Academics
2. Admission
3. Attendance
4. Student Information
5. Scheduling
6. Faculty
7. Staff
8. Enrollment Management
9. Facility Management
10. Classrooms

I. InstoCampuz-

[6] School ERP: Web based erp system to manage functionalists like attendance and students data , etc. □ Pros and cons: It has api service and mobile support. Its a webapp It is not supported on IOS.

1. Academics
2. Accounting
3. Admission
4. Attendance
5. Courses and Batches Management
6. CRM integration
7. Document
8. Email Integration
9. Event Calendar
10. Events
11. Examination
12. Fee
13. Financial Services
14. HMS
15. HR
16. Payroll

JILIT School Connect: [7] Its similar to ther erp system with student management and bookings □ Pros and cons: Its a cloud based webapp. It uses cloud deployment. Payment Option is one time option no emi available.

1. Academics
2. Accounting
3. Activities
4. Admission
5. Attendance
6. Email
7. Event
8. Examination
9. Fee
10. Hostel MS
11. HR
12. Payroll
13. Inventory Management
14. User Customisation

Little Hotelier: [8] It is a cloud-based software for booking rooms it provide various facilites like food also in there bookings □ Pros and cons: Good Channel manager, no Customisation in payment

1. Calendar
2. Calendar syncing
3. Customize booking
4. Dashboards
5. Email templates
6. Employees management
7. Generate bills and invoices

8. Generating booking insights
9. Locations maps
10. Periodics reporting
11. Print invoices
12. Registration forms
13. Rates
14. Alerts for workers
15. Reservation

Sirvoy Booking System:[7] Sirvoy Booking System is cloud based booking system which is also similar to the above one. It provides 14 day free trial for usage □ Pros and cons: Brilliant knowledgeable, responsive and helpful customer service at all levels, extremely quick help every time.

1. Calendar
2. Calendar syncing
3. Customize booking
4. Dashboards
5. Email templates
6. Employees management
7. Generate bills and invoices
8. Generating booking insights
9. Locations maps
10. Periodics reporting
11. Print invoices
12. Registration forms
13. Rates
14. Alerts for workers
15. Social media market

Roomsy :[9] Roomsy is hospitality property management which also provides booking for apartments too and VR, etc □ Pros and cons: They have great how-to videos, which you follow on another screen. No cons.

1. Email confirmation
2. GDS / OTA integration
3. Individual / group check-in
4. Room feature classification
5. Walk-in registration
6. Payment processing
7. Property database
8. Housekeeping management
9. Reviews management
10. Front office management
11. Accounting management
12. Calendar management
13. Channel management
14. CRM integration
15. Data synchronization
16. Invoice management

J. **Banana Desk:**

[10] Banana Desk is beautifully made website with very good functionalities and very reliable system its also cloud based and emerging facility. □ Pros and cons : IT's easy to use and understands perfectly how a hostel works. Sometimes, "miss" double-clicking on a reservation can move the bar up as if the check-in date were yesterday.

1. Online booking
2. Online property distribution
3. Room descriptions & photos
4. No-show protection
5. Extras & add-on sales
6. Reservations calendar
7. Channel management
8. Automatic reservations import
9. Guest emailing
10. Automatic availability & rate updates
11. Booking channel integration
12. Data backups every 5 minutes
13. Data export to Excel
14. Drag-and-drop scheduling
15. Per-room and per-bed rates
16. Unique property URLs

III. SYSTEM ARCHITECTURE

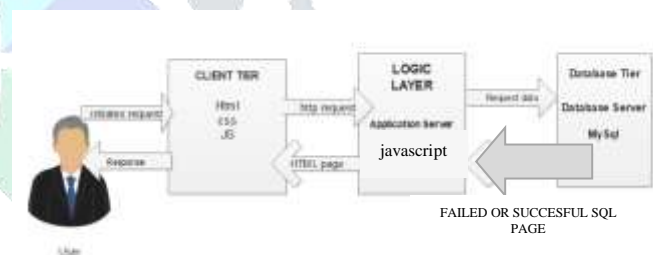


Fig. 1. SYSTEM ARCHITECTURE: It shows the flow of interaction between user and GUI.

In the above system architecture we have a user which will send a request by browsing our website and performing activity then the request will be initiated on client tier then it will forward it to Logic layer that is called application layer which will have JavaScript. It will send an http request net logic layer will request data from database server it will send either failed or successful HTTP response which will be forwarded to logic layer then client tier and finally to the user.

IV. PROPOSED SYSTEM

[11] Project manages issues dealing with manual handling of hostel room bookings. We badly need to build a system because offline handling can cause chaos with students as well as admin. Loss of receipts can be a major cause. Cheating can also be a factor since everything is manual and cannot be backed up. Lots of pages will be wasted for filling details of students, etc . [1]. This can be overcome with online hostel management system . In that system all the data will be stored in databases and GUI will guide through everything like logging, payment, booking rooms according to availability, selecting number of days and so on. We can also add features like cancelling the booking. So the user don't have to face the


```

graph TD
    Start([Start Page]) --> Login([Log in/Sign Up])
    Login --> Auth{Already Signed in}
    Auth -- Yes --> Home[Home Dashboard]
    Auth -- No --> Register[Register / Sign Up]
    Register --> Auth
    Home --> Dashboard[Dashboard]
    Dashboard --> Overview[Overview]
    Dashboard --> Projects[Projects]
    Dashboard --> Reports[Reports]
    Dashboard --> Settings[Settings]
    Dashboard --> Profile[Profile]
    Dashboard --> Logout[Logout]
    Overview --> Projects
    Projects --> AddProject[Add Project]
    Projects --> EditProject[Edit Project]
    Projects --> DeleteProject[Delete Project]
    Reports --> GenerateReport[Generate Report]
    Reports --> ViewReport[View Report]
    Settings --> ChangePassword[Change Password]
    Settings --> ChangeEmail[Change Email]
    Profile --> UpdateProfile[Update Profile]
    Logout --> End([End])
  
```

The flowchart illustrates the Project Management Process. It begins with a 'Start Page' leading to a 'Log in/Sign Up' box. A decision diamond 'Already Signed in' follows. If 'Yes', it leads to the 'Home Dashboard'. If 'No', it leads to 'Register / Sign Up', which then leads back to the 'Already Signed in' decision. From the 'Home Dashboard', the process flows to a 'Dashboard' box. The 'Dashboard' has five main branches: 'Overview', 'Projects', 'Reports', 'Settings', and 'Profile'. The 'Overview' branch leads to 'Projects', which includes 'Add Project', 'Edit Project', and 'Delete Project'. The 'Reports' branch leads to 'Generate Report' and 'View Report'. The 'Settings' branch leads to 'Change Password' and 'Change Email'. The 'Profile' branch leads to 'Update Profile'. Finally, a 'Logout' button is shown, leading to an 'End' box.

Fig. 2. PROPOSED SYSTEM FLOW: It shows the flow of the website for hostel and students.

V. RESULTS



Fig. 3. HOMEPAGE : On clicking Home tab we will be asked to log in to book a hostel or add a hostel depending on the role.



Fig. 4. HOSTEL: Here the hostels will be visible which are to be listed for booking.

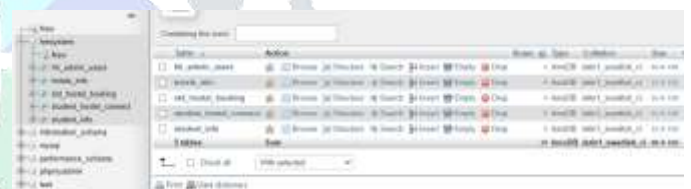


Fig. 5. DATABASE: This is the proposed database.

VI. CONCLUSION

Hence to overcome the manual methods for Hostel booking we have come up with a solution to make it advanced using technologies like HTML, CSS JS PHP MYSQL and BOOTSTRAP. This project can be used as hybrid all the hostels can register themselves and the students can book it according to their needs. Also we have added grievance and filter functionality to our project. With a proper Future scope it will be good in use.

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