

Resource Allocation System

Sunidhi Singh^a, Sonika Singh^a, Vishal Sharma^a, Anand Srivastava^a

^aComputer Science and Engineering Department,
ABES Engineering College, Ghaziabad, Uttar Pradesh

Abstract

We live in a world where technology is growing day by day. The manual tasks and work which is performed by us seem to be difficult as compared to the online systems.

The main objective of this web-based project the Resource allocation system is designed to manage all the details of the bookings, hall, seminars and customers. This system is built and designed at the administrative end where the admin or administrator is the entity who is responsible for confirming your booking. It also keeps all the details about reserving the Halls and the Seminars, also provides the user view facilities depends on the user requirement. Such as All the customers details, Bookings and Hall also manage the booking dates and information.

Keywords: web-based, reservation, administrator, customer.

1 Introduction

As the current System of ABES performs manual work in the bookings of all the resources. This method increases the work and headache of the booking department for filling the details and confirming the bookings.

Almost every day, there are some events in the college for which there are requirements for halls and seminars. All the registrations, bookings, and their management are done offline which increases not only the complexity but also the efforts of event managers and organizers.

With offline registrations, load on event organizers increases as they have to keep track of every registration coming to them. Manual hours that need to spend in record keeping and generating reports are reduced. Participants had to go to event organizers for registering for the events. Resource allocation system will save time and efforts of organizers as well as of participants

The online Resource allocation system is web-based system which seems like a viaduct among all the faculties, ABES, non- ABES users and the booking manager.

Every organization needs to employ different staff for performing all the manual tasks and resolving the problems in different departments. The employment of the different number of staff members is a must and it only depends on size and work which is to be performed. But if there is an alternative, the organizations will never want to have such hardship performed manually for simple booking.

It is on this mild that this observe seems at the activities at ABES Engineering College. ABES Engineering College. It was established in the year 2000. It is a self-financed and private college. It is at the top of all the private engineering colleges in the education system. The current system of bookings of resources in ABES is manual and it needs to be made online to reduce the hardship faced by the managers and organizers. Therefore the Resource Booking system will increase its competitiveness.

2 Literature Review

Managing college service is very complicated, hence it involves different dealing and managing of jobs directly with the users, bookings done by users and hall reservation. In the manual resource allocation system control is subdivided into phase with every segment having specific responsibilities. This software will engage on occasion operationally to get an organizational objectives. As the current process of reciprocity comprises of entire work of a complex manual system i.e. level wise interaction through paper and verbal and oral mean of communication and documentation, etc. This now leads to computerization of the resource allocation system in the college campus.

In the current scenario, it usually takes about a day for an employee to get a space booked for his work, which includes visiting many offices, counter verifications and checking availability, which itself is a tedious task. The change in this process is long overdue and something easier and convenient should

be there.

The “Resource Allocation/Booking System” will be evolved to override the issues triumphing in the practising guide system, Resource Allocation system is a web-based system which will lessen the hardships confronted by the manual system. A current manual system involves lots of paper trails, dedicated staff, and other shortcomings which is not only resource consuming but also imperfect.

In the manual resource allocation system control is subdivided into phase with every segment having specific responsibilities. This software will engage on occasion operationally to get an organizational objectives. As the current process of reciprocity comprises of entire work of a complex manual system i.e. level wise interaction through paper and verbal and oral mean of communication and documentation, etc. This now leads to computerization of the resource allocation system in the college campus..

Each enterprise whether or not huge or small has to employ staff members for manual bookings and query resolution. But if given a simpler alternative, none of those organizations would want to have dedicated manpower for booking.

2.1 Tools and Technology

HTML is hypertext mark-up language stands for machine-readable text nomenclature is that the principal nomenclature for site. Internet browsers get hypertext increase language records from a web server or local stockpiling and render the reports into mixed media framework sites. Hypertext increase language depicts the structure of a web page, semantically and initially encased signals for the vibes of the archive.

CSS may be a simple instrument for including vogue (e.g., text styles, hues, dividing) to web archives. Legacy may be a key component in CSS; it relies upon the precursor relative relationship to direct. Legacy is that the instrument by that properties zone unit applied not so much to a, for example, component, however together to its relatives. Legacy relies upon the report tree, that is that the pecking order of XHTML parts in partner degree passing page upheld settling. Relative parts may acquire CSS property estimations from any precursor component fenced-in area them.

SQL could be a programming language designed for the storage Associate in Nursing retrieval of data in an extremely direction system usually referred to as Structured source language. It is designed for storing the information in the database using the SQL query language.

An intuitive client or program will issue SQL articulations to a zone RDB and get tables of data and standing pointers once again from remote RDBs. SQL proclamations additionally can be incorporated and hang on in remote RDBs as bundles so summoned by bundle name. this can be essential for the efficient activity of use programs that issue propelled, high-recurrence inquiries. it's especially vital once the tables to be gotten to territory unit put in remote frameworks.

Notepad might be a typical book in particular (plain word processor. The resulting documents—normally spared with the predetermined augmentation—have no configuration labels or plans, making the program fitting for composing framework records to use in a very DOS environmental factors and, regularly, ASCII content record for later aggregation or execution, commonly through a brief. it's furthermore useful for its irrelevant utilization of framework assets; making for quick burden time and interim, especially on under-fueled equipment. Tablet bolsters each left-to-right and option to-left.

Database: Database is required for storing the data and additionally taking care of user details like their credential and booking details. From the stored data we can retrieve all the information if required.

PHP could be a well-liked general scripting language that's particularly suited to web development. The PHP programming bundle works with the net server, that will be that the product bundle that conveys web substance to the planet. after you blood classification all-inclusive asset locator into your web program's location bar, you're causation a message to the net server at that general asset locator, requesting that it send you partner degree HTML record. the net server reacts by the causation of the mentioned document. Your program peruses the HTML document and shows the net page, thus it works as an interpreter.

Web Server: In style of internet server we've got used the XAMPP webserver for the applying. Normally advancement and investigating is performed on a neighborhood web server, while the creation condition is situated on a remote web

server. The present adaptation empowers utilizing a nearby server.

3. The Existing System

The current existing system is a lot of sort of a manual system wherever all the management, booking, and organization is being done manually. This method is incredibly long and time taking method wherever the user needs to go from one method to a different method by walking to the administrator and occupation them several numbers of times.

Problems of the prevailing system

- An outsized quantity of your time consumption and efforts surface.
- Within the current system user cannot do the booking from foreign places.
- Within the current system the is problem within the cancelation of booking.
- There's no existence of phone bookings.
- The security of the current system is less as compared to an online system.
- This system contains a heap of manual work.
- The safety of this system is a smaller amount as compared to an internet system.

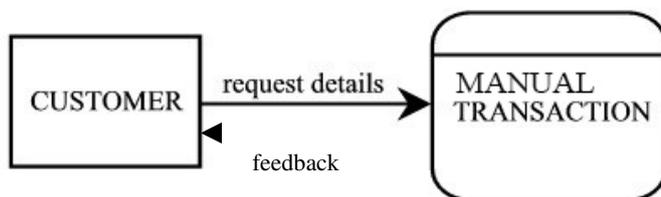


Fig.1: Context Diagram of existing System

4. Planned System

The planned or the current system could be a web-based application which reduces the manual hardship of the organizer and manager.

- Users will submit their request by giving their necessities, event date, Name and range of guests, etc.
- Any user internal or external needs to raise an invitation for booking and it'll be approved by concern authority.
- this system provides data concerning the supply of resources.

- It maintains the records and therefore the bookings of the users.
- to produce data regarding the standing of halls and bookings.
- we will predict the longer term booking potentialities for every month by accessing the past bookings by that you'll check the likelihood of the supply of the resource.

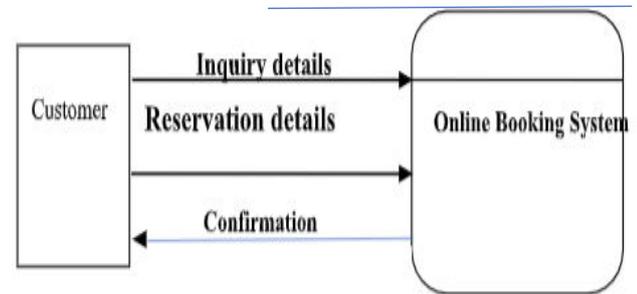


Fig.2: Context Diagram of planned System

5 Design and Development of the Planned System

5.1 User Interfaces

The user interface permits the user to sign up themselves with some required details on the enrollment page. After triumphant registration, the authenticated user can login by using the credential and can view the seminar corridor info in addition to they are able to e-book the seminar hall.

In the GUI part we takes care of the look and feels of the user interface so that the user can not hate using this software. It additionally takes care of easiness for the user by decreasing the complexity of the program.

5.2 Hardware Interfaces

This software can run on any browser of any version. On little cases, server load is basically determined by top guests, however you may use the following specifications for optimal performance. One more vital situation for the use of our net software is that the consumer need to offer an actual and running e-mail id.

5.3 Software package Interfaces

- The NetBeans IDE for PHP.
- Web server: In style of internet server we've got used the XAMPP webserver for the applying. Normally advancement and investigating is performed on a neighborhood web server, while the creation condition is situated on a remote web server. The present adaptation empowers utilizing a nearby server. Regularly advancement and investigating is performed on a neighborhood web server, while the creation condition is situated on a remote web server. The present form empowers utilizing a nearby server. Utilizing a remote server with FTP access will be upheld in future adaptations. PHP backing can be added to various web server, however most regularly Apache HTTP Server is utilized.
- Requirement of PHP engine that support the version 5.
- The PHP debugger: The NetBeans IDE for PHP permits you to utilize XDebug, however utilizing a debugger is discretionary. The suggested adaptation is XDebug 2.0 or higher as it is good with PHP5. Advantage from syntactic and semantic code featuring, spring up documentation, code formating and collapsing, stamping of events and leave focuses, shrewd attempt/get code finish, brilliant strategy parameter pre-filling, and rectangular determination.
- A database server: You can utilize different database servers like sql, oracle, sqlite, DB2 and so on, while one of the most well known ones is the MySQL server.

5.4 Communications Interfaces

Resource allocationmail API is Associate in Nursing protocol library that creates hobnob for net applications smoothly, most significantly andquick. you wish not produce a correct mission for walking network operation within the background. Resource allocationmail API will do this by itself by making Associate in Nursing asynchronous task.

5.5 User Characteristics

The required user should have a little expertise with net applications since this software is all concerned

with the on-line booking. Users should have previous data of the seminar still as its available details. there's educationally needed for the usage of the appliance. Every faculty and student will use this software with straightforward data of on-line booking.

The necessity of providing the choice to users to recommend directors add another Hall within their organization that isn't nevertheless listed within the system will be enclosed in the next version of the software package because it isn't nevertheless a necessity in initial needs.

Email Notifications on users Email id devices to tell them concerning events current their reservations additionally shall be delayed until future versions.

5.6 Project Risk management.

Risk Management method is that the tool through that we are able to defend our project from the loss, harm, injury, adverse result, etc., so we are able to kind and satisfied or eliminates that risk if necessary.

5.7 Associated Functions

The main capabilities of this utility are:

- Register: the primary method of this software is that it'll raise the user to register them on the system so the information of the registered user is stored on the portal and can be used for further login.
- Login: It presents get right of entry to the home page of the software to the registered person totally. There will be the section of User ID and arcanum, when filling the entry properly user are ready to get all the available feature of the software.
- Admins Maintain the list of areas within the organization with their capaciousness and different details associated with house.
- Booking Resources: The appliance can mechanically be created needed modification in backend and a confirmation are shown to the user about confirming theirallocation.
- Maintainance: The admin are chargeable for this operate. they'll transfer the standing of the resources from the rear finish and therefore the user are ready to see the standing available.

5.8 Performance analysis

The work done until now could be operating with productivity and it envelop a large vary of user wherever every of the authenticated users are ready to login to book a hall that fits economical for him and that they are additionally ready to see its availability and hall details.

Title of the project as Resource allocation System is that the web-based software that deals with the booking of Seminar Hall, Labs & area and finding its availability within the college.

- It's terribly helpful to the college still because the organizers to easy accessibility to locating the main points.
- This project is with success enforced with all the options and modules of the Resource allocation System as per needs.
- The Resource allocation System provides acceptable data to users supported their profiles and position inside the gadget.
- This venture is intended keeping in sight the everyday problems long-faced by a college management system.

5.9 Assumptions

The assumption by the developer is made that everybody can have a niceand working web server on their system as the server would require network property. The user should have smart data of the operating of the appliance and have knowledge about operating it.

6. Implementation

A customer's application problems Associate in Nursing protocol request from the sourcerecto. On the button click, request is send and the data of the recto is announce from the user browser as a letter of invitation to the webserver. After receiving the request from the server, the webserver reedms the file content from its secondary disk or memory, after receiving the request from the server it passes the file to the PHP, php.dll, when the server receives the HTML page sends by the PHP.

HTTP defines a group of request ways to point the required action to be performed for a given resource.

though they will even be nouns, these request ways area unit generally cited as protocol verbs. every of them implements a unique linguistics, however some common options area unit shared by a bunch of them

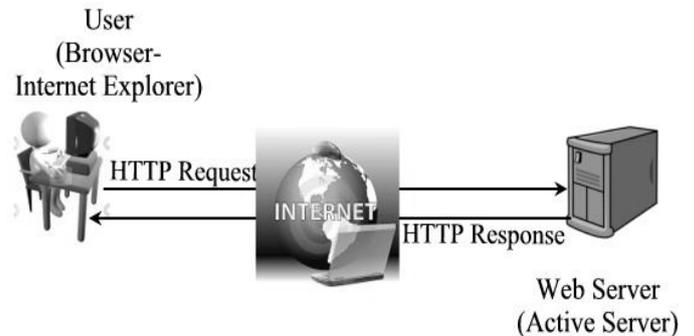


Fig. 10: communication between web server and Browser

7. Conclusion

- The Resource allocation System is that the on-line system that's developed for the bookings of the Seminar Hall, Labs, and area within the ABESEC.
- This system uses the web method rather than employing a manual method thus it reduces the complexness of the method.
- As there area unit several school and organizers United Nations agency face issues within the system. This project is planned by keeping a watch on that.
- We will predict the long run booking potentialities for every month by accessing the past bookings by that you'll be able to check the chance of the supply of the resource.
- The Resource allocation System provides acceptable data supported the users' needs.
- It additionally keeps the records of the user United Nations agency has done the booking for security functions.

Future Scope

In future later on, specific changes can be joined according to the necessities of the associations executing the framework. We can add the notification system which will notify about the availability and reminds you about your booking. In addition to that we can also predict the future booking possibilities for each month by accessing the past bookings.

Acknowledgement

I would like to thank all of my modern and former colleagues, instructors, and pals at computer university for his or her help and encouragement for the duration of my research spadework.

References

- [1] Alison Batter: Sams Teach Yourself Microsoft SQL Server 2005 express in 24 Shours, First edition.
- [2] Richard Bemile, Akwasi Achampong, and Emmanuel Danquah, "Online Hotel Reservation System", International Journal of Innovative Science, Engineering & Technology, Vol. 1 Issue 9, November 2014.
- [3] Ian Sommerville, "Software Engineering 8th Edition".
- [4] P. Ghosh, SQL Popcorn, Eastern Economy ed, New Delhi: PHI Learning, 2010.
- [5] International Journal for Research in Applied Science & Engineering Technology (IJRASET) on Online Hall Booking Management System by Ms. Pallavi Khadse in April 2017.
- [6] Documentation on Online booking system, conference paper(Nov 2014), author- Syed Hasan,[research_gate_publication](#).
- [7] Chen, P., " The Entity-Relationship Model – Towards a Unified View of Data. A CM Transactions on database system",1976.
- [8] T. Mishima, K. Takahashi, T. Kawamura, and K. Sugahara, "Meeting Scheduling System using Unpleasant Notification," in IT Conver genceand Security (ICITCS), 2013 International Conference on, 2013, pp. 1-4.
- [9] Joseph Schmuller: Sams Teach Yourself UML in 24 Hours, Third Edition.
- [10] <http://www.mindspeakit.com/web-development-2/products/hotel-management-system/>, Accessed on 15/02/20.
- [11] <https://www.javatpoint.com/java-jdbc/>, Accessed on 28/01/20.
- [12] [https://www.w3schools.com/html/An complete guide for HTML and CSS and designing of web pages](https://www.w3schools.com/html/An_complete_guide_for_HTML_and_CSS_and_designing_of_web_pages), Accessed on 23/01/20.
- [13] www.hotelbookers.com, Accessed on 15/12/12.