Automation of exam hall seating arrangement

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ABSTRACT

This paper is an android application is used to save time and allow numbers of students view their individual seating arrangement. The project keeps tracking various details such as Students details, Examination date, Subject details, hall and Seat details. Students can view their seating arrangement anywhere with their help of mobile phones. Admin login with his own id and password. The admin can able to update the information and files. Admin can check updated details if necessary. This android project to create an own database, which contains a data like overall student register numbers, number of halls available, number of desks available in a particular hall and subject code. Examination hall seating arrangement will be allocated automatically by using PHP and JAVA languages. To create a condition for fetching data from the database. If the condition is then allocated automatically. Each hall contains two different departments with different subject codes.

Keywords: Exam Hall, Seating Arrangement, Android Application.

1. INTRODUCTION

Every institution has examinations held at particular intervals. Placing the students appearing in the exams is important of the procedure. If we manually allocate each student to a specified seat, it is a mammoth task. Institutions have various databases and software designed to perform this task.

The paper is attributed to design an Examination Seating Arrangement Tool which automatically places students in their respective seats according to their allotted roll numbers. The students are seated serially roll number wise in numeric order. Each student has a specific seat as allotted by the server and no two students from the same course structure can be seated next to each other. This project focuses on improving the efficiency of the seat allotment system and the tedious task of manually allocating seats to each individual. The Examination Seating Arrangement depends upon the number of vacant rooms and

Seating capacity of each room. The rooms are considered as a multi-dimensional array with a specified number of rows and columns. The students are placed in each seat one behind the other according to last digits of their enrolment number. This software can be greatly used in every institution for any kind of exam or sometimes even event managements. It decreases our time and makes the procedure very systematic. The software can be extended to various other ways to seat people in a hall for any event or function. The Examination Seating Arrangement Tool encompasses a wide variety of uses in our daily lives and has made examination planning very efficient.

2. LITERATURE SURVEY

This project also provides the seating arrangement of the student but this project developed in c/c++ so it does not provide user-friendly interface and nowadays it does not work efficiently.[2] Exam hall seating arrangement System using PHP, Author-Prof S.S. Aravinth, G.Pavithra, linkhttp://www.ijirt.org/vol1/paperpublished/IJIRT101629_Paper.pdf [2]– This is the online system to provide seating arrangement in which student need to online registration first. It means each student having a registration first individually[3] paper that is “A study on the automatic allocation of membership functions for fuzzy modeling” we studied about the genetic algorithm which is used for automatic function
3. METHODOLOGY

This paper has been coded in JAVA language. It has three basic functions- to determine the number of vacant rooms available, to determine the number of students appearing and placing those students in rows and columns of rooms in serial order. All these features are then incorporated into the main function. The model is software to place students serially in a seating pattern based on their register number. The paper is focused on the following parts. Based on these features we are able to design a model for a seating-wise plan.

![Fig.1: Architecture Diagram For Seating Arrangement](image)

A. AVAILABILITY OF VACANT ROOMS

The room is considered as a multi-dimensional array or matrix with rows and columns. When the user is asked to enter the number of vacant rooms available for seating, it also takes into account the seating capacity of the room which is calculated by the number of rows and columns.

B. NUMBER OF STUDENTS APPEARING

The total number of students appearing for the examination must be stated by the user. Each student has an allotted register number through which it can be placed serially one after the other. The students who are debarred or absent are skipped in the number of appearing Students.

c. ALLOCATING STUDENTS IN SEATS

The students are seated one behind the other by It has to be placed in such a way that no two adjacent columns have the same course students seated next to each other. The students are placed serially according to their register numbers. Once the room is completely occupied, the students start filling up the next room. The voids between two columns are filled by students from another course in similar fashion.

4. EXISTING SYSTEM

The existing system is done manually. It maintained in excel sheets. It doesn’t user-friendly. Students want to know their seating arrangement on the notice board. So, unnecessary waste of time. It is software such as these which can our work time.

5. PROPOSED SYSTEM

To overcome existing system to avoid waste of time and tension. Student searches their register number and they getting respective exam hall details in the mobile application at anywhere. To create a condition fetching data from the database. If condition true’s seat allocates automatically. Each exam hall contains two different departments with subject code.

6. MODULE DESCRIPTION


A. ADMIN LOGIN MODULE

Admin login with own id and password. Admin has a security purpose for uploading seating arrangements for particular examination.
OPEN FROM ADMIN:

B. UPDATE MODULE

Admin can update data which stores data in the database. To update student details, exam details, exam hall details like block, rows, columns and bench and seat allocate with different subject code and different department.
C. STUDENT VIEW

Shows the in student mobile phone enter your register number in shows on the student room number and register number, subject code manage the information of exam details and seating arrangements.

Fig.5: Student View Module Foe Seating Arrangement

This module is also used for both admin and student view module for exam hall seating arrangement.

Fig.6: Exam Details For Seating Arrangement

D. DISPLAY MODULE

The display module is used to view the exam details like hall number, block, details, student register number, subject details, subject code, row, bench, session, date of the particular examination and also seat number and rows whether right or left. a student can view the displayed exam hall details on the mobile phone at anywhere.

Fig.7: Display Module For Seating Arrangement
7. BENEFITS

This software is particularly useful in today’s time with the increasing number of people appearing for various examinations. Manually handling data is not only tedious and time-consuming but prone to errors as well. This software enables the user to be accurate, fast and produce reliable results. It manages the system very efficiently and secures our work. Once the work has been executed, we can make changes manually as well. It is a multi-user environment and can be easily shifted from the terminal to another. The importance of this software to make our tasks faster and more reliable. In today’s day and age, work reducing applications are much required because of the increasing demand of new trends.

It is an organized system which enables us to automatically allocate students to their desired location. For people handling institutions, the work load is very high and the need for faster work is a need of the hour. There is a general complaint that government offices have surplus work load but the speed of efficiency is very low. It is software such as these which can decrease our work time. Institutions use the software can save an ample amount of time during the examination time. Some of the few benefits of this model are that it is very fast, reliable and robust. In today’s world, it is the tool for event management which is extremely useful for various occasions. This much-needed feature of user-friendliness is present in this model and can be used for all types of the user whether Agile, Naïve or expert.

8. LIMITATIONS

Even though the model of great use, there are some drawbacks such software considers each room to be of equal seating capacity. Also a large amount of data, software slows down. Sometimes, it is completely reliable it does not take into broken chairs and damaged furniture.

9. CONCLUSION

This paper has been a great learning experience because not only is an efficient but great method to reduce work. It easy work load and gives us an accurate measure to resolve seating arrangements. Most institutes should install this software and it can be a great help to them. Apart from that can be extended to use in event managements, meetings where large gatherings need to present. It gives us an organized structural overview of our work.

10. FUTURE IMPLICATIONS

This software’s can be designed and improved upon to handle larger groups. It can also be used to allocate positioning of things in various other areas. It can be used to design timetables for a large number of workers. It can also be used to automatically allot a bed to patients in hospitals and it can give them a rough estimate of how many beds are required. The software which increases human efficiency and reduces time is a boon and necessity for the coming years.

11. REFERENCES

[1] The References are taken for this system