



## EXAM CELL AUTOMATION SYSTEM

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**ABSTRACT** - Project is developed for the college, to simplify examination hall allotment and seating arrangement manual work. It facilitates to access the examination information of a particular student in a particular class. The purpose of developing this seating arrangement system is to provide a way to allocate exam hall for each student without any clash. Mostly students are facing many problems for finding the exam hall, so a newly invented concept helps for the staffs to generate their exam hall arrangement easily. This project also allocates particular invigilator for particular hall. It is also very useful for the college where the software may generate the hall separation and concerned reports. Hence manual Excel sheet and paper work is automated based on their departments and register numbers.

### I. INTRODUCTION

Examination Cell Automation System is developed for the college to simplify the allocation of halls. It facilitates to access the examination information of a particular student in a particular department. The information is sorted alphabetically, which will be provided by the teacher for a respective department. Here the admin updates the student details, exam timings, hall details, staff details and available space in the hall. So the automated system will give the seating details to the students whose details are listed in the spreadsheet. The objective of developing exam cell automation system is to computerize the traditional way of conducting the exams. Another objective for developing this is to generate the seating arrangement report automatically during exams at the end of the session or in between the session. It aims to provide an easy way to fill any exam related forms, KT forms and traditional manual system of colleges to an automated system that will handle the entire exam cell system without wasting any time. The purpose of developing exam hall seating arrangement system is to computerized the traditional way of conducting exams and help staffs in allocating exam hall easily without any burden. Another purpose of developing this software is to generate the report automatically during exams at the end of the session or in between the session. This project also allocates particular invigilator for particular hall. It is also very useful for the college where the software may generate the hall separation. Hence the hall is allocated to the students automatically based on their departments and register numbers. We may also take print outs. The major modules in this application are Student details, Room details, Exam schedule and Room allocation.

### II. LITERATURE SURVEY

The information is stored in alphabetical order which is provided by the faculty and the exam coordinator of their respective department. The admin updates the information about student details, exam timing, hall details and available space in the hall. Now the automated system will generate the seating order to the students which are provided by department staff in the database by sql. [1]. Each institute has to validate themselves to cloud and each institute falling under the same university has to provide their student and staff details to get the allocation of exam duties and blocks.

Cloud computing also focuses on maximizing the effectiveness of the shared resources. Cloud resources are usually not only shared by multiple users but are also dynamically reallocated per demand. [2].

The system proposes to reduce the manual work which requires extra efforts and extra time to process. The system overcomes security problem by automating maximum processes of exam cell. Each and every user will be given specific privileges through which the users will not be able to access any other information. [3].

This system allows students to enroll themselves into the system by registering their names or by sharing details to admin. This is done by providing their personal and all the necessary details like Name, email, examination, semester, etc. [4].

The Automated Examination Support System is a proposed system published in the International Journal of Current Engineering and Technology. The system deals with the activities related to examination. The system provides a convenient environment for users by giving them flexibility into the system. [5].

This application is an automated system for the entire institute that deals with student seat allocation and faculty supervision allocation for examination at university level to manage the academic examination process using the cloud computing technology. Here the computerized system allocates the number of students to a particular block and supervisor to their block and also allows the supervisor to exchange their duties, generate particular date, session, block and generate the report for the students who are absent for the particular examination.

### III. METHODOLOGY

Exam Cell Automation System application would be developed to simplify the allocation of halls to students during exams. It facilitates to access the examination information of a particular student in a particular department. The information is sorted information alphabetically, which will be provided by the teacher for a respective department. Provide a simpler method to store and access information related to exam hall and students. Reduce paperwork and make all related information accessible easily. Provide a simple interface which will be easily used without much training.

#### A. SYSTEM ARCHITECTURE

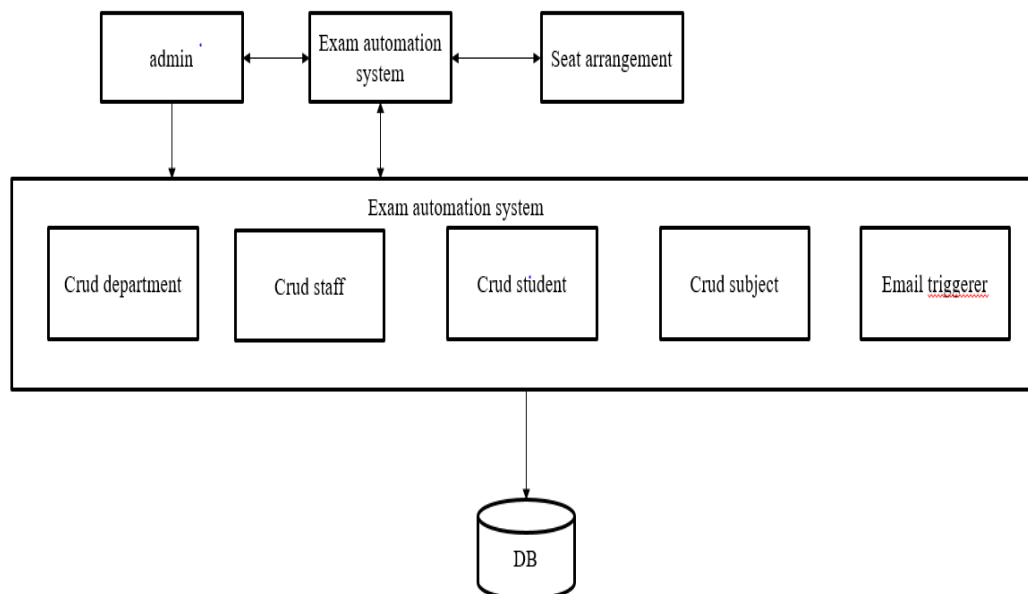


Figure 1: System Architecture for Exam Cell Automation System

The Figure 1 shows the system architecture where Admin will login with user-name and password with is directly connected to database it will check for the details. Admin can add department, teacher, student, subject and exam details where the data is stored in the database. Admin can view and update all the details from the database.

### B. DATAFLOW DIAGRAM

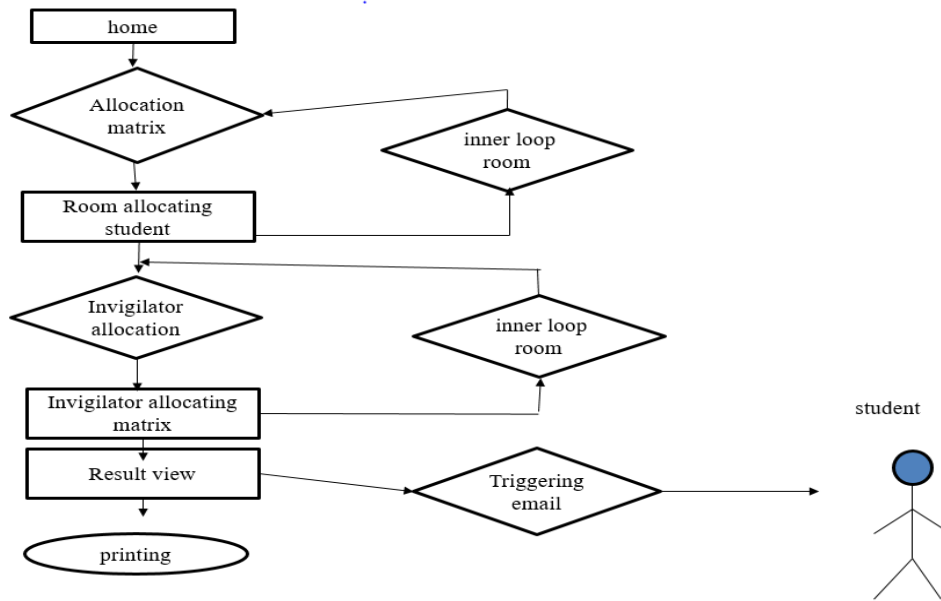


Figure 2: Dataflow Diagram for Exam Cell Automation System

DFD shows the flow of data in a system. The DFD also provides information about the output and input of each entity and the process itself.

### C. USE CASE DIAGRAM

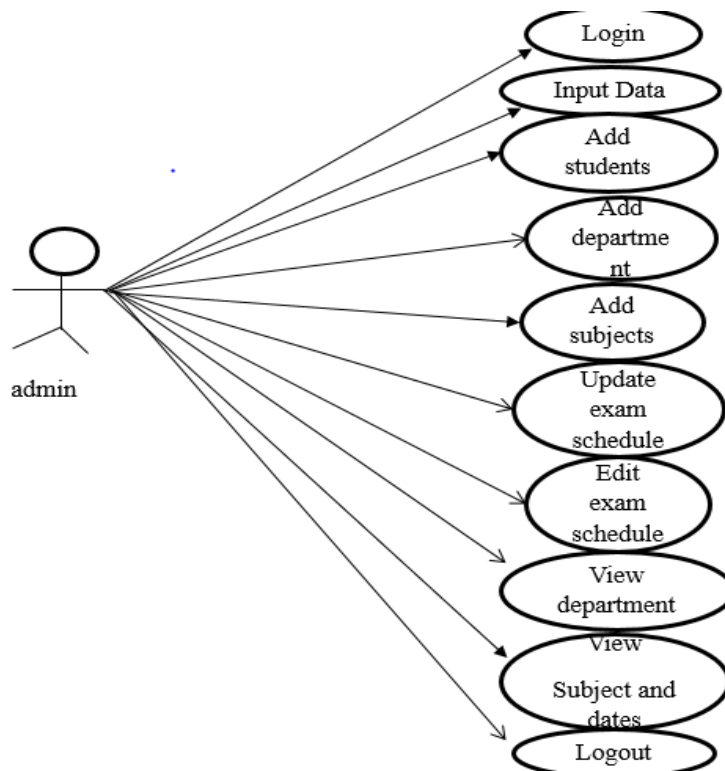


Figure 3: Use Case Diagram for Admin

Use case diagram is the methodology used for system analysis. It is a high-level design of a system. The use case diagram represents how the users interact with the system. Use case can identify the different types of uses of system and different use cases and will often be accompanied by other types of diagram as well. The use cases are represented by circles or ellipses.

The Figure 3 represents the use case diagram for exam allocation system. It shows how the admin, staff and students interact with their respected modules. The admin has the access to all the modules such as department, subject, student, staff, room, exam details and generation of exam date. The staff and students will get the email according to the date scheduled. The admin will send the email to the staff and students on the particular exam date.

#### IV. IMPLEMENTATION

Here Random generation algorithm is used for arranging seat allotment based on different semesters and branches. The implementation plan includes a description of all the activities that must occur to implement the new system and to put operation. It identifies the personnel responsible for the activities and prepares a time chart for implementation the system the implementation

##### A. RANDOM GENERATION ALGORITHM

##### B.

The algorithm can be summarized in the following steps:

1. START ADMIN LOGIN
2. Enter admin Id and password
3. Admin Id and password are verified with the database.
4. IF (id, password valid)  
Admin access into All the page  
Adding  
Updating/Viewing  
Events are Added Successfully  
END IF
5. ELSE
6. Display invalid admin Id or password
7. END IF
8. END

#### V. RESULTS

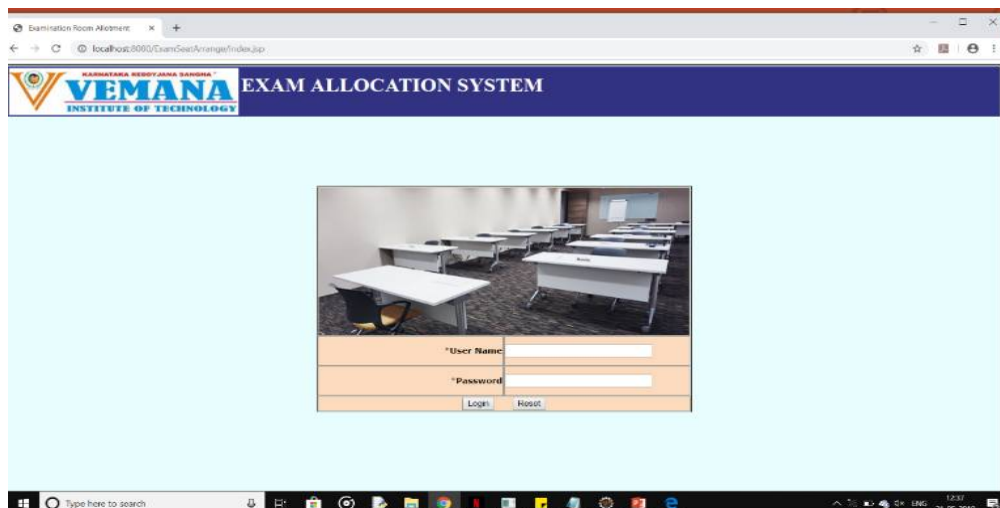


Figure 4: Login Form

The Figure 4 shows the login form of admin. The admin must enter by using his user name and password. Only admin has access to the system. The admin has full control over the system. The admin can perform the required crud operation.

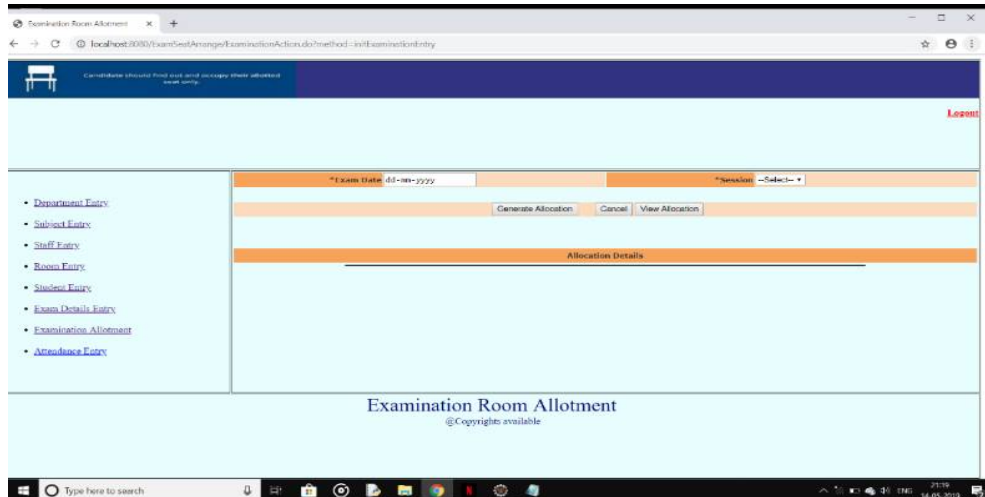


Figure 5: Allocation details

Figure 5 shows the exam allocation details. It contains exam date and session of a particular exam. It will generate exam seat for the students and staff for the invigilation.

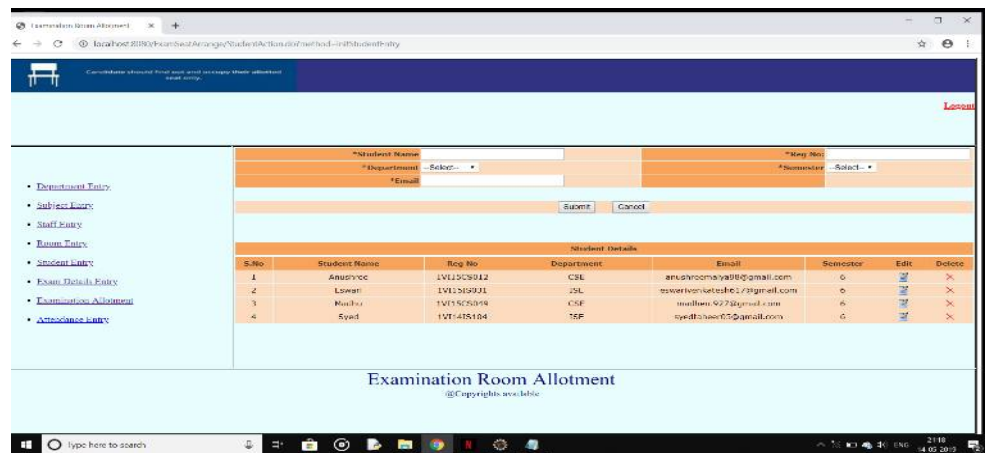


Figure 6: Student Details.

Figure 6 shows student details. It contains students name, USN, students email id and semester. The admin can add or delete the student's information.

## VI. CONCLUSION AND FUTURE ENHANCEMENTS

The software developed will fulfil the necessary requirements as required by the user. It is ensured that all the operations are working properly in "Exam cell automation system". The system is used to design to operate in a user friendly manner. Proper documentation done from different areas, without difficulty and provides smooth running of all the operations. The system can be developed in PHP is to improve more user interactivity. It avoids errors in allocating rooms for students by manual method.

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