Automated Exam Cell with Result Analysis

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Abstract:
Automated exam cell with result analysis is aims in providing facilities to automate exam-cell activities. These applications do all automated work regarding Exam-cell. This system will make exam department activities more efficient by covering for the most important drawbacks of manual system, namely speed, accuracy and simplicity. The administrator and student are the two main functional requirements in the system. The system is more a accessible and convenient for both students and staff. The project will give access to various users including students, exam cell staff and admin. Proper login with time & role based access is provided to admin & students. The whole system will be controlled by admin. This system involves, filling exam form and KT, exam-form timetable & hall ticket generation, hall ticket downloading & result generation. All the general details such as student branch, semester, subject details KT forms details etc. provide various records regarding students. This application is help in make the exam cell process much organized. The admin verify and accept request. All verified student can access the system and fill exam form, KT, download hall-ticket, timetable. The final product would constitute a computerized module aimed at replicating offline exam cell process.

Keywords: automated; computerized; result generation

1. INTRODUCTION

Now a day’s impact computer on our day-to-day lives is probably much more so use of computer and application. Software is increasing day-by-day, since automation system is demanded now days. Like a colleges needed their manual system such as exam cell activities to function on a computer system one of such system which is of major importance is automated exam cell with result analysis. Examination cell is referred as is an integral part of college management system. Examination in an engineering college is an important issue. Hence management of a system required used efforts. The main channel of an institute to centralized. Automated exam cell with result analysis is an environment that has been created to allow users, use of fill form, hall ticket generation and generate result analysis. This project detail with the management of content of an institution using student details, uploading timetable, generate result and maintaining result analysis sheet as well.

A. Problem statement:

In the present system all the work is done manually. The amount of work makes the exam cell process must slower. It requires maintaining lot of documents. Handling important document is much time consuming work. Also retrieval of important documents and statics will consume time. It takes more efforts and physical space to keep track of paper documents, to find information and to keep detail secure. In case of student they have to manually do lot of paper work, by filing of any exam related form up to collection of final mark sheet, hence automated exam cell with result analysis is an application which over comes the drawbacks of existing system and consist of form filing, upload/download hall ticket and timetable, analysis of result.

B. Aim: The aim of this application is: To maintain all the records in database so that whenever needed retrieved. Easy to operate and reduce the time and efforts of the user.

C. Scope

The scope of this project all admission and examination related work for the student can be done using this system. Provide faster and easier access for updating records. All the student related database can be retrieved at any time. Application support and maintenance after deployment to production. The Admin module can be reused for projects as well which have many users with different rights. Hence it is reusable.

II. PROPOSED SYSTEM

The project is aimed at developing Automated Exam Cell with Result Analysis. There are mainly 2 users they are admin and student. Admin have all control over the system, Admin is master user. The function of administrator involves verifying and accepting the request of registered student, updating system, deleting user. Student first register on system by filing all basic information such as name, email, academic year, branch etc.

The verified student can very flexibly login and view Hall ticket, download hall ticket and timetable, view result. Student can access relevant resources. Admin will generate hall ticket, timetable, and result. They can see the information provided by student name, branch, semester, year and subjects. They put timetable, hall ticket so that the user can view and download hall ticket and timetable and view result. The proposed automated exam cell with result analysis internal to avoid all the drawbacks of existing system. It will add some features than the existing system. The proposed system is a cost effective. The way of doing the manual processes done in the existing system.

A. Implementation

1. Form filling: The form filling feature is one of the most important features of the exam cell module. This feature helps the student to get the various form that he/she need to fill online without waiting in any kind of line in the examination cell. Also, it helps the examination cell personnel to maintain
all the forms in a digital way, making it easier for the management and functioning of the examination cell. Student can avail the form online from his/her account any time he/she want. The student may have to make payment for the forms (as the case may apply) and when the status of payment is confirmed in the ERP module, the form is made available to the student. Form filling is categorized into regular form filling and KT form filling. Regular form has to be filled by each and every student. Hence the design of regular form filling is much simpler it just requires the user to directly check the acknowledgement receipt, check their details and download it. The KT form filling on the other hand is slightly more complex. The system keeps track of the KT's of individual students based on the uploaded marks. When a student logs into his account, the system displays only his respective KT's. The student then selects the subjects of his choice for the exam after which the system provides an acknowledgement pdf.

2. Hall ticket generation: Admin makes available the hall ticket which can be access by the student. The ERP retrieves the seat no. and other relevant data like name, semester based on the roll number. It populates these data into a hall ticket template. Once the retrieval and populating data to template is successful the ERP module makes the Hall Ticket available for printing. On student side, on receipt of the hall ticket the student is provided with change request option. If the hall ticket contains any discrepancy or error, the student can request for change in details. The partial Admin checks out for suggested changes, verifies the suggested changes in person from student, make relevant changes and dispatch the revised hall ticket to student. Once all the detail are fill by student the module generate seat no. These details are made into the hall ticket from which the student is then provided to print.

3. Timetable: Admin generate timetable for the examination. Student can view and download the timetable, the timetable include regular timetable and KT timetable.

4. Generate and view Result: Once the marks are filled by admin are verified and admin can click on generate result. The admin need to select year, semester, branch, particular subject for result need to be generated. The ERP module search for the related result from database retrieve result related data as per requirement and display the result. Once the results are generated the admin can opt for analysis and acquire reports on performance of students.

III. SYSTEM DESIGN

The system consist of 2 modules, student module and admin module, each module has an same login page that contain user id and password filled by entering the values in field the user should login to the system. Each module is described below.

a. Admin

In the current system Admin will be performing following activities:

- Uploading the previous semester marks
- Issue of hall ticket
- Adding dates for university exams.
- Result Generation
- Statistical Analysis of result

b. Student

Student will be conducting following activities:

- Login
- For Regular form filling just click on acknowledgement receipt.
- For KT student select the desired subjects which they want to appear and then generate acknowledgement.
- View and download their hall ticket
- View their results online

A. Use case diagram:

This use case diagram is a representation of a user’s interaction with the system and depicting the specification of a use case.
2. **Sequence Diagram for Admin:**

![Sequence Diagram for Admin](image1)

Figure 2. Sequence Diagram Admin

**Sequence Diagram for Student:**

![Sequence Diagram for Student](image2)

Figure 3. Sequence Diagram student

IV. TECHNOLOGY USED

- **Software Requirement:**
  - WAMP Server
  - Windows Operating System
  - FRONTEND: PHP
  - BACKEND: MYSQL
b. Hardware Requirement:
  - Processor: Pentium 4
  - RAM: 512 MB or more
  - Hard disk: 16 GB or more

PHP stands for Hypertext Preprocessor. PHP is an interpreted language, i.e. there is no need for compilation. PHP is a server side scripting language. PHP is faster than other scripting language e.g. asp and jsp.

V. CONCLUSION

Considering the extremely interwoven nature of exam cell activities, an automated solution to important activities like result analysis and report generation would greatly benefit the institution. The use of up-to-date open-source software ensures a great cost-benefit measure while maintaining productivity, thus improving the student experience and value of education. Further, the implementation of this system can perpetuate the automation of other important activities in the institute, thus making the college more student and staff-friendly. We have been successful in deploying the entire form filling and hall ticket module on intranet.

VI. RESULT

![Figure 4. Home page](image4.png)

![Figure 5. Admin login](image5.png)

![Figure 6. Student login](image6.png)

![Figure 7. Student exam form](image7.png)

![Figure 8. Hall ticket generation.](image8.png)

![Figure 9. Exam Date](image9.png)

![Figure 10. Exam timetable](image10.png)

![Figure 11. Add marks](image11.png)
VI. ACKNOWLEDGMENT

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VII. REFERENCE

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