College examination system

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ABSTRACT

This paper presents a model of an Examination management System. It helps to access the examination information of a specific student in a specific class. The purpose of developing this system is to computerized the traditional way of conducting exams. The examination management system project aims to provide the students the facility to view their examination timetable along with the syllabus for the examination and also the examination location, part of this project can also focus on generating student information as well as providing the students with the facility to search for some basic information of any faculty. In this project, student can view their performance report after giving the examination. The student can also send his/her paper for re-evaluation along with providing the reason why he wants the paper to be re-evaluated. Apart from this the details of the students booked under malpractice in a particular examination is also displayed by the system. This project is a Web-based application.

1. INTRODUCTION

Now a day’s impact computer has on our day-to-day lives is probably much more so use of computer and application. Software has been increasing day-by-day, as a result of demand for automation system now a days. Result generation is an important part of every university. It is a very tedious process of fetching marks and then calculating them according to the prescribed syllabus. Automating the result generation of any university makes the job of college’s as well as people related to it a bit easy as a result of which students can also able to get their result at the earliest. Online examination result declaration is referred as an integral part of college management system. The system is more accessible and convenient for both students as well as faculty. The project will give access to various users including students, faculty members and administrator. Examination in any college is an important issue. Hence management of a system requires used efforts. Every college must have a system that facilitates faster generation of results with minimal errors. The complexities in calculating each and every students result for every subject according to prescribed scheme is very crucial. It is very difficult to implement the various conditions prescribed by the university as the gracing rules are very complex and even to convert marks into equivalent CGPA is difficult considering the marks along with the grades. Every educational institution focuses on sitting arrangements/ other examination arrangement during examinations. The main channel of an institute to online result declaration with additional functionalities is an environment that has been created to allow students to see their profile, have an access to their respective allocated seats for the examination, search for a faculty, send a request for re-evaluation of the paper and generate overall result analysis. The existing system generated results based on the rules of the older system. Advantages of the systems are Data consistency, Better data accessibility, compactness. Purpose of this project is to provide an Examination Management System. This software system will be helpful for the examination management such as seating arrangement, evaluation etc. in VIT University. It provides seating arrangement of a students, evaluation of papers, process marks, publish result and provides mark list for all the courses under which student has registered for the University.

2. LITERATURE SURVEY

- Deepankar Vishwas Kotwal1, Shubham Rajendra Bhadke2, Aishwarya Sanjay Gunjal3, Puspendu Biswas4 Online Examination System is a software solution, which allows any industry or institute to arrange, conduct and manage examinations via an online environment. It can be done through the Internet/Intranet and/ Local Area Network environments.
• Hongmei Nie Math, Physics and Information Engineering College — online examination is one of the crucial parts for online education. It is efficient and fast enough and reduces the large amount of material resource. An examination system is designed and developed based on web. This paper describes the principle of the system, presents the main functions of the system, analyses the algorithm of auto-generating test paper, and discusses the security of the system.

• S. Vasupongayya, W. Noodam, and P. Kongyong, Prince of Songkla University, Thailand: These projects focus on developing an examination management system for the Faculty of Engineering in order to manage the examination both the examination room assignments and the examination proctor assignments in each room.

• Angitha Saju, Cochin University of Science and Technology: This system manages the examinations valuation for the Post Graduation courses MCA and MBA. It provides hall ticket, arranges the answer papers for 1st, 2nd & 3rd valuation, process marks, publish results and provide mark lists and certificates for the University.

3. PROPOSED SYSTEM

The proposed system is used to give the information regarding the examinations. It shows the timetable as well as the seating arrangement of the student. It will also show the result of the each subject in which the student had registered. The system is developed using HTML, CSS, PHP, MySql Databases.

3.1 PRODUCT PERSPECTIVE

The proposed Examination System is a system that will provide a view of seating arrangement for all the student’s and view of their marks as well. Further the faculty can add the marks of the students through this System. The System will also have an ADMIN who has full-fledged rights with regards to managing resources across campus – such as generating the schedule for examination in the university. The user’s can view and submit various information through their account. There are basic two types of users one are the students and other are faculty members. Each user’s facilitates with a different account number having a profile along with a password for private use. The two types of users differ from each other due to the accessing limits to online University management system.

3.2 SOFTWARE INTERFACE

The system consists of login and sign up forms for the Students and faculties. It also contains login form for the administrator. System also displays the profile as well as information about the results, seating arrangement for the students. For faculty system gives extra features like updating or uploading marks of the students.

3.2.1 PRODUCT FUNCTION

There are three different users who will be using this product:

- University chancellor who will be acting as the administrator.
- Faculty members who are second level users accessing Vit examination system
- Student of the University who will be accessing the VES online. The features that are available to the

I. Administrator are:

- The administrator has the full fledged rights over the VES.
- Administrator can upload the examination schedule for each subject for every student
- Administrator can also upload the invigilation schedule for each faculty.
- He can also handle the problem regarding the websites.

II. Faculty members are:

- Faculties can be able to create a new account, login into their existing account which will give them authority to use the services provided by the system.
- Faculties can upload/update the marks of the students who registered under them for specific subject.
- Faculties can see the CGPA of the students.

III. Students are:

- Students should be able to create new account,
- log-in to their existing accounts which will give them the authority to use the services provided by the system. II. Students are able to see the profiles of the teachers so that they can communicate with teachers easily.
- Students can see their exam time table as well as the seating arrangement.
- Students can also see their results regarding each subject

4. MODULE DESCRIPTION

4.1 SIGN IN MODULE

This allows a new user to create an account and thus enjoy the facilities provided by the system
4.2 STUDENT LOG IN

Student can access information such as result, faculty information etc. by logging in to their respective accounts.
4.3 STUDENT INFORMATION

This module can display a student’s information such as student’s address, email id, date of birth etc.

4.4 SYLLABUS UPDATE

This module is managed by the faculty to update the syllabus of an examination as per the course.
4.5 EXAM SCHEDULE

This module displays the timing and date of an examination along with room number and seat number for each student.

![Figure-v](image)

4.6 INVIGILATION SCHEDULE

This module displays the timing and date of an examination along with the room number for the invigilation.

![Figure-vi](image)

4.7 FACULTY INFORMATION

The students can approach their respective faculties for any problem faced by them by simply accessing the information from the portal.
4.8 BUILDING LOCATION

Students can locate the building in which the examination will take place.

4.9 MESSAGE VIEW

This module enables the student to see the message regarding result declaration.
4.10 MALRACTICE MODULE

In this module the system displays the list of students booked under malpractice in a particular examination.

![Figure-x](image)

4.11 RESULT

The result can be seen through this module for a specific course. It includes the display of exam type, course code, subject and the marks.

![Figure-xi](image)

4.12 RE-EVALUATION

This module enables a student to send their paper for re-evaluation to the faculty and add a comment specifying the question which they would like the faculty to re-check.
5. ARCHITECTURE DESIGN

Rapid application development (RAD) is a software development methodology that uses minimal planning in favour of rapid prototyping. A prototype is a working model that is functionally equivalent to a component of the product. In RAD model the functional modules are developed in parallel as prototypes and are integrated to make the complete product for faster product delivery.

Since there is no detailed preplanning, it makes it easier to incorporate the changes within the development process. RAD projects follow iterative and incremental model and have small teams comprising of developers, domain experts, customer representatives and other IT resources working progressively on their component or prototype.

The most important aspect for this model to be successful is to make sure that the prototypes developed are reusable.

5.1 ASSUMPTIONS AND DEPENDENCIES

- We assumed Registration number, Email Id, School Code, Course Code, Faculty Id as a primary key for the different tables as shown in the ER-diagram.
- User has basic knowledge of computers.
- User should have sufficient knowledge of English since the system interface will be in English.
- The system is fast.
- Internet connection is available to all the users who use this subsystem.
- The user is assumed to give system correct information about his details.
- All the previous records should be maintained in order to provide accurate result (CGPA).
- The files uploaded should be of specific format (pdf, docx etc).
- Provides accurate data.
5.2 USE-CASE DIAGRAM OF SYSTEM

This use case diagram is a representation of a user’s interaction with the system and depicting the specification of a use case.

![Use-Case Diagram]

Figure-xv

6. FUTURE WORK

The system can include the function of conducting a quiz for students as per the wish of the faculty for a particular batch. In addition to this the result of the quiz can be shown just after the submission of the quiz. Moreover, the records of the student’s can be stored in MySQL. The data can be fetched from MySQL and transferred to the excel sheets if needed. Forecasting could be more easier in excel sheets. By using data mining technique such as linear regression which will help in forecasting students result. We can find out some particular features for e.g. predict the toughness of subject and accordingly divide the subjects in tough category and scoring category. Report generations are just one click away. Various reports of students based on the requirements of the institute can be generated very easily.

7. CONCLUSION

In this proposed system, a system is developed which will minimize the effort of the exam cell department in doing their task and it will also indirectly help students to get their results at the earliest. This is done by making the graphic user interface user friendly to use and also putting complex conditions in a simple way which would increase the performance of the system, thus automating the system as much as possible.

8. REFERENCES

[1] “Spring MVC documentation (http://docs. spring.io/ spring/docs/)

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