

Exam Result Analysis

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Abstract - Technology in today's world has reached to extent that it can be used to do various task in day-to-day life easily with less effort and time. World today has realized importance of education in one's life which has led to revolution in field of education. Universities, colleges, schools today have loads of task to be completed in given timeline. In today's scenario colleges needs to analyze student results manually which takes lots of time and effort by faculties working on it. Hence in order to simplify this task a web-based system is introduced which can perform student result analysis. The system takes file of student results obtained by universities in excel sheet format as an input. The result of analysis will then be displayed in sorted manner according to rank of student. It also helps student to check and convert their marks from SGPA to CGPA and CGPA to percentage. This system runs on web browser on computer with well-connected network.

Key Words: MySQL, Python, Java, Excel, Bar Graphs, PDF, DOC, Result, SGPA, CGPA, Percentage.

1. INTRODUCTION

Exam Result Analysis System is web-based software which is helpful for students as well as the college authorities. In the current system all the activities are done manually. It is very time consuming and costly. Our Exam Result Analysis System deals with the various activities related to the students and college. In many exams and other work student need to provide their CGPA and Percentage, it is very time consuming in this web-based software we already provide their converted SGPA-CGPA-Percentage.

There are mainly 5 modules in this web-based software

- Admin module
- Staff module
- Student module
- Result module
- E-news

In this web-based software, we can register as an admin. Admin has the power to edit, update and delete any user if required. A faculty member can use the staff module and register as staff and have the power to edit the data stored

in the database, like upload result sheets and they can also access the e-news module for small/large scale internal college news and updates. The students can use the student module for student login and new student sign-up. All the details provided by the admin and staff the students can see but can't update or make changes. The result module helps to check result. The e-news module helps the students to know about small or large internal college news updated by the faculty and HOD.

2. PURPOSE

- Many times, faculty need to maintain their student exam data for analysis.
- Providing Conversion of SGPA to CGPA and Percentage.
- Main purpose of this project is student can analysis themself as per semesters and they can use that data and improve their academic performance.
- Student can download there analyzed result in PDF, excel sheet format and attach it with their resume for future purposes.

3. FUNCTIONAL OVERVIEW

3.1 Admin Module

The admin has the access to all the modules in the Web based software and it can add or edit existing information of the HOD, faculty and student.

3.2 Staff Module

It is the module for the faculty of the department. it has the responsibility to add the teaching staff for there specific roles in department and assign the subject to the teaching staff. This module allows them to insert, update and delete the exam results data and they will also get small/large scale inter department, college news in the form of e-news on their dashboard. They can compare the student result data in different pattern like subject, class, branch, year also can view particular student performance and can

generate their performance report in the form of pie charts, different graphs on excel sheets/doc/pdf format.

3.3 Student Module

Student module is for students, through this module they can either directly login and view their result which was uploaded by their teaching staffs or if the student is new in the department, they can sign-up and make their account. Students can also download their result, detailed analysis of it and SGPA-CGPA-percentage conversion in a doc/pdf format for any future use. They will also get small/large scale inter department, college news in the form of e-news on their dashboard.

3.4 Result Module

Result module is a module which can only be updated or changed by admin and staff modules. The student module can contact to their respective class teachers for any major or minor changes, if any. This module contains elaborated form of student's results at the top and analyzed result in the form of charts and graphs followed by the SGPA-CGPA-percentage conversion.

4. EXISTING SYSTEM

Current system is bit time consuming as they require some amount of work to be done prior for example creating a excel sheet which contains student information like marks, personal details and enter all these details manually.

4.1 Disadvantages of Existing System:

The current system is time consuming. In current system, some manual work is to be done which makes it complex. In current system user must have some knowledge about creating and managing the particular file which is to be upload to the system for data extraction. Some of the current software are not platform independent.

5. FEASIBILITY STUDY

The feasibility study involved in conception of the project requires a study of environment as well as the risk involved in the development of the project. Proper estimation has to be carried out to ensure timely delivery of component as well as the development of effective solution. It is necessary to evaluate the feasibility of the project.

1. Economic feasibility
2. Technical feasibility
3. Legal feasibility

5.1 Economic feasibility- The web-based software cost is low as compared to another Hardware Project.

5.2 Technically feasibility- The chance of web-based software getting damaged is less as compared to hardware project.

5.3 Legal feasibility- The Exam Result Analysis System through Textual commands and Feedback has a legal feasibility as it all parts are legally issued by the college and university.

6. WORKING

6.1 Admin Module:

In this module as the name itself suggests, it's the admin role of the whole web based software. The admin has all the power like addition or deletion of any staff as well as students. They can also update e-news portal and monitor information.

6.2 Staff Module:

In this staff module the staff i.e. faculty members can access only. They can update, upload, delete the exam results weather its semester or final exam result provided by the university. They can also monitor all the information systematically class wise or subject wise accordingly.

6.3 Student Module:

In the student module the students can perform very few tasks for now. If the student is new they can directly sign up to the system by using there unique university roll number (PRN - permanent registration number) or contact to there respective HOD (admin). then they can sign in and monitor there original result and its analysis too followed by the conversion chart and download option in PDF format for further use.

6.4 Result Module:

In the result module students can only view it but the staff can make changes in it. This module holds the main role of this project.

6.5 E-news Module:

In this e-news module the students will get every kind of news related to college. The staff and admin can edit and update this module. This module will be very helpful for everyone because it will have each and every updated news regarding the colleges and university.

7. BLOCK DIAGRAM

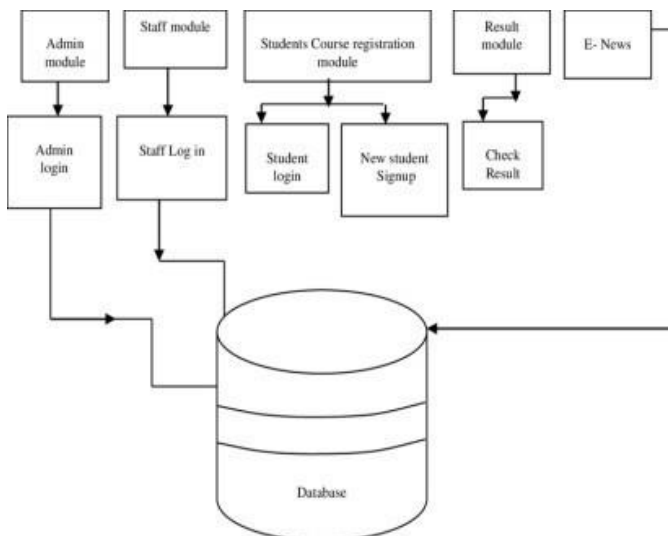


Fig.1.ER DIAGRAM OF EXAM RESULT ANALYSIS(ERA)

8. STUDENT ANALYSIS

This student performance analysis system provides an easy way to students in searching the details of projects, academic attendance report and marks/percentage details the with graph. Students can search the projects with project title or using guide name or with the academic year. All the details of the projects and details of student's attendance and marks are added by the Teachers and HODs. It has 3 Modules namely Student, Teacher and HOD. Students are asked to register and then login, fills the academic details, view projects, view attendance, marks in graph-based format, events and notice. Teachers can login, approve students, Add Students marks, Upload attendance, add Project details, view assigned events and notice. HOD can login, manage teachers report, events, they can view attendance and academic details and manage notice. Basically, this system can help to maintain and manage the records of students, teachers, events of college, projects, attendance and more.

9. ADVANTAGES

- 9.1 To obtain student result semester wise.
- 9.2 Easy and converted SGPA to CGPA and Percentage.
- 9.3 Do not need to update data manually.
- 9.4 Easy to use, configure and maintain.
- 9.5 The specified system is intended to reduce manual inspection by a great extent.

10. FUTURE SCOPE

10.1 The future of Exam Result Analysis. Although not enough time has spent to have established standards in this fields, the algorithms are continuing to increase in accuracy. In future we will try to increase the resources f our affect student performance and student data set to increase the performance of our methods as well as to increase the accuracy of the entire system. There are many advantages in being able to identify performance of student from graphical representation.

10.2 To being able to build such kind of applications. Which improves the student's ability to analyze themselves. If the computer can tell a person in which field, he/she need to improve it is more beneficial to them in their academic career.

10.3 We have used the basic concepts of data science to perform the proper analysis of the result data for now. But if we add the knowledge of "Machine Learning", then we can achieve much more. For example- A chat bot can be created which will study the analyzed result and give students a suggestion about what area they should focus on, the bot can create a time-table for the students as per there result analysis data which can be edited also.

10.4 In the future if we can introduce "Artificial Inelegance" to this topic then this module can be made more secure and handy to use.

Likely, if a student X is willing to view his/her result, they can just login and view it, similarly for student Y, but if X tries to login into Y's profile and view Y's result then he/she won't be able to do so. With the help of AI, we can achieve depth sensing and face recognition we can make this module more secure than before.

11. CONCLUSION

Our project is only a humble venture to satisfy the needs in an Institution. Several user-friendly coding has also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the organization.

The objective of web based software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

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