

# STUDENT RESULT ANALYSIS SYSTEM

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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 realised 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 tasks 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. This system runs on web browser on computer with well connected network.

**Keywords:** Analysis, photo Excel, mysql, php, js, validation, graphs.

## 1. INTRODUCTION

Student result analysis is a web based application developed for colleges to analyze the result and keep track of students[1]. We are able to see the individual candidate's results separately. Student result analysis system has been designed to carry out the mark analysis process in an educational institution. The results of respective departments can be efficiently computed without much of manual involvement. Given the continuous rise in student population, tertiary institutions calculate examination result of students with the help of computer programs. Analysis of students information and their academic record is as important as examination result computation. The need for data use to inform decision-making in tertiary institutions cannot be overemphasized. Over the years, many algorithms and programs to compute examination result of students have been developed.[2] However, the use of programs that extends capabilities beyond examination result computation is not widespread. The system provides a comprehensive solution to the demand of examination result computation as well as student information and academic record management. The system is resilient and written with the flexibility to accommodate future needs. It is expected to encourage data use in tertiary institutions. Information from such data can facilitate decision-making and improve educational standards in tertiary institutions.

## 2. LITERATURE SURVEY

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after they have been defined in the abstract. Abbreviations such as IEEE, SI, MKS, CGS, sc, dc, and rms do not have to be defined. Do not use abbreviations in the title or heads unless they are unavoidable.

### 2.1 Existing algorithm/programs:

As mentioned previously, today there exist some computer program which helps user to find and store basic information such as student's name ,marks and seat number. Rest all the computational work either needs a different program or is done manually by faculties of that institution.

### 2.2 Disadvantages of existing system:

- O.S dependency if computer program is coded in C language.
- The use of linear search in file handling might increase time complexity.
- NO advanced feature benefit can be used such as in web application.

### 2.3 Proposed approach and its advantage over existing system:

- User friendly (as faculties can easily use web based application ).
- ALL time availability.(system remains available as long as computer is well connected with network).
- Easy computation.
- Easy Storage of data.
- More efficient.
- Requires less effort and time.

## 3. PROPOSED SYSTEM

Student Result Analysis System is an student driven system that is designed in order to keep record of student data by use of technology. Now-a-day result analysis is done manually taking lots of effort and time then too desired accuracy is not achieved. Also updation of data is very difficult as all data needs to revised again. In addition more paperwork and documentation is required.

This designed system that will manage:

- Information about various user.

- Information about subjects offered in various semester
- Marks obtained by student in every semester.
- Generation of reports.
- Analysis of data based on aspects.

Student result analysis system is simple web based application designed using HTML language. In this system database is designed using MySQL. Logical coding is done using java script which contains main logic of overall system functionality. To design web pages CSS is used for different styles. The system is covered under all validation checks for authentication. Data is been imported from excel sheet into database. These student data is been analyzed based on various aspects like marks , grade , rank[3][4].System will be designed in such a way that it can be later updated to accept different format. For that all data will be stored in temporary storage first, and then formatted before inserting in database.

#### 4. DESIGN

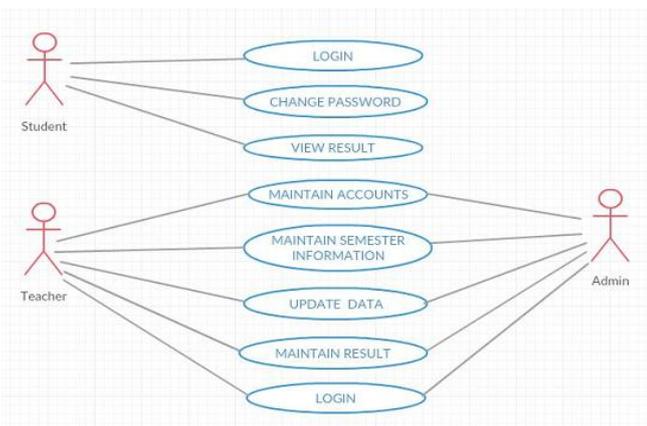


Fig -1: Use case diagram for overall system

Figure 1 gives overall view of the system functionalities. It also shows the relationship between different modules of the system. Viewing use case diagram use of the system can be clearly demonstrated. The three user of the system accesses the system modules according to the privileges provided to them by administrator.

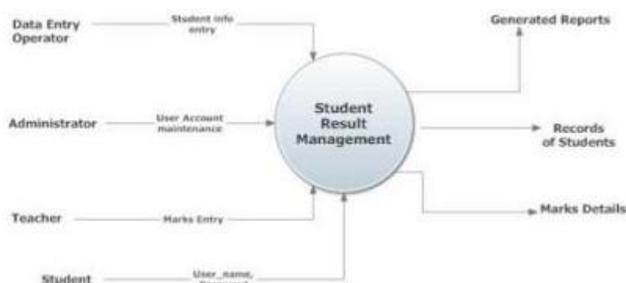


Fig -2: Context Diagram of Student Result Analysis System

Figure 2 illustrates the high level view of the system. The relation between user and system is shown in the figure. Student result management is our system which is accessed by administrator to give authorities to lower user(faculties).Teacher uses the system for correction in student’s marks. Student views their marks and class rank. Administrator who is higher authorities needs to know the overall report of student’s result. It is demonstrated in system by graphical representation of data in system.

The privileges for teachers are that they can view record of a student, updates result and can change his/her login password. Password to teachers is initially provided by administrator. Admin has right to modify , alter , delete , add data or record of new student or user. Admin provides rights for accessing data to other users in the system.

#### 5. IMPLEMENTATION

We developed a website to analyze and generate report of students based on the curriculum that represents students academic performance. We have developed the system such that ,it will automatically parse data onto the database from excel file, which will in return reduce time consumption of analysis of data. For these we used php, my SQL and java script. After teacher logs into system ,data is been fetched dynamically through the database. For here, parsing is done using PHP Excel. It is an inbuilt library for php to fetch data from excel files over or within network. We hope to accelerate the analysis by developing the analysis system. It provide assistance to teachers and administrator to track record of each student, subject and department by using various techniques such as sort.

The system is developed based on following languages :

1. HTML: at front end.
2. SQL server: as a database language.
3. php,js: for validation and scripting.

The result is generated based on the marks provided by database. These marks are been updated using excel sheet provided by university. To update the data, excel sheet is been parsed using php Excel. The algorithm reads the data in binary format and implicitly provides data of any cell. The main benefit of this is that it reduces the memory footprint of PHP Excel itself, for these it uses an autoloader known as lazyloader, which calls function only when it is required, this saves memory. For each sheet separate cache storage is maintained. Various methods are been defined to read ,write , set Page ,set Scale, set Width, etc. to import data in the database. Data is been retrieved using co-ordinate or cell value.IO Factory methods are used to parse data.

Algorithm working of the system:

- Upload the excel file of students marks.
- Internal calculation(system logic):
- Display of analysis.

## 6. FUTURE SCOPE

Previously, data used to be inserted manually to analyze result. But, Currently the project supports excel(.xlsx) files for extraction of data. The future scope is that data can be fetched, parsed in other formats like doc , csv , odt , etc . Visualization can be provided to represent data in graphical format. Various representation like pie chart , graph , etc .

## 7. CONCLUSION

The goal of the system is achieved and difficulties are solved. The project is built such that it is user friendly. Analysis of the scoring system it shows by the grade wise result of individual subject and final result also display grade wise .depending on its range of marks. The project can be easily used in college for college result analysis of student. It reduces time which required for manual calculation. This system helps to calculate result fast so it optimizes the manpower.

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