

COURSE OUTCOME ATTAINMENT ESTIMATION SYSTEM

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ABSTRACT: *Course outcome attainment estimation system is a web application that estimates the CO (Course Outcome) attainment percentage. This application helps the faculty members to get accurate CO (Course Outcome) attainment percentage and reducing time involved in the process when it is done manually. The continuous internal assessment (CA) of the students are entered into the application. Then these values are stored in the database and are fetched when needed. The internal marks and assignment/innovative marks of the students are entered into the application separately. Using these values in the data base, individual percentage of the COs are calculated and CO vs. CA graph is developed. In the similar way, assignment and innovative marks are uploaded and the COs average and graph for assignment and innovative is developed. Finally, using Direct Internal Assessment and Direct External Assessment marks (which is the average of the marks obtained by students in external examination) CO attainment percentage is generated.*

1. INTRODUCTION

1.1 PROJECT OVERVIEW

A **Course Outcome Attainment Estimation System** is a simple interface that helps in attaining the Course Outcome (CO) percentage in each and every subject. Continuous evaluation and improvement are the steps involved in the development of Self-Assessment Report History (SAR). Yet, it is predetermined and pretty important in getting an accreditation. The theoretical notations in these processes are PO's and CO's.

The Course Outcomes (COs): They refers to the subjective processes a course provides. They are the end result of the knowledge skills the students acquire at the end of the program.

The 12 Program Outcomes (POs) a college must have in order to prepare an SAR are:

The parameters adopted by NBA for accreditation of programmes are based on initial capacity, competence, intelligence etc. which refers to the outcomes desired by the profession concerned. These parameters called as Graduates Attributes, vary from discipline to discipline and level to level.

2. OBJECTIVE

The objective of the project is to make an application in android platform that helps the staffs in a college to calculate the CO attainment percentage with accurate results and less involvement of time into this process. This application also allows the user to print the result and save them for later usage. This will improve the storage of the results compared to manual calculations.

3. EXISTING SYSTEM

From the paper we observe that we can take the data stored in data warehousing environments to perform various techniques like classification, associations, clustering, and prediction. According to the requirement needed we can classify the data based on many parameters. Differentiating of the data according to needs of user can be done using classification. Prediction also helps in predicting the future values in advance so that there is some accuracy in obtaining the dataset.

In general, we explore the data first, and then we try building the data according to our type and validate them. At last, we try to deploy the data to come to the analyses of the data. The three important goals of data mining are to discover useful information, suggest conclusions and decision making.

Data is collected from variety of sources in which communication can be done using Information Technology personnel. After this processing or organizing is done on the collected data.

The organized data is then cleaned up in order to avoid error, inaccuracy of data and duplication. The data is analysed once it is cleaned. The technique called exploratory data analysis is used for analysis. Data Visualization may also be used to examine the data in a graphical format to gain more insight with the data.

PHP language and for backend MySQL are the technologies used for this whole process.

4. PROPOSED SYSTEM

This section proposes a method for estimating the Correlation between the course and the program outcomes,

- Process of defining CO-PO correlation matrix, Map every Course Unit with Every CO. Map every Course Unit with Every PO. Identify
- Number of contact hours utilized for the CO - PO mapping and actual number of hours allocated to units.
- Calculate number of contact hours for specific CO number of contact hours= (number of hours) / (number of mapped CO).
- Calculate percentage number of contact hours for Specific PO No of contact hours= (number of hours) / (number of Mapped PO).
- %CO-PO Correlation= ((Summation of number of CO) * (number of PO contact hours) *100)/ (Total Number of contact hours). Methodology to estimate the strength level.

5. DESIGN AND ARCHITECTURE

Systems design is the process of defining the architecture, modules, interfaces, and data for a system to satisfy specified requirements. Systems design could be seen as the application of systems theory to product development. There is some overlap with the disciplines of systems analysis, systems architecture and systems engineering.

Input design is the process of converting user-originated inputs to a computer-based format. Input design is one of the most expensive phases of the operation of computerized system and it often the major problem of a system.

- To produce a cost-effective method of input
- To achieve a highest possible level of accuracy.
- To ensure that input is acceptable to and understood by the user staff.

In the project, the Text edit is displayed. The reports here generated vividly and the text edit can be seen through the reports. The output design is a going an activity almost from the beginning of the project and follows the principles of form design.

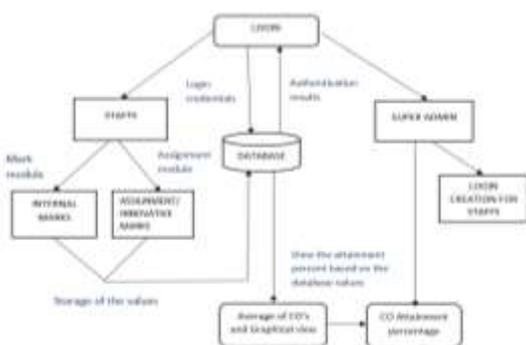


Fig:5.1. Architecture Diagram

6. IMPLEMENTATION

Implementation is a stage of the project when the theoretical design is turned out in to a working system. Thus, in this project we can see that logins for staffs is create by the admin.

The admin can create login for staffs, control the rights that can be accessed by the staffs in the application and can view the final reports.

The staffs can add students, department, subject into the application. They must enter the mark of the students using which the averages of the CO's and their graphical view is generated. Finally, the CO attainment percentage is generated.

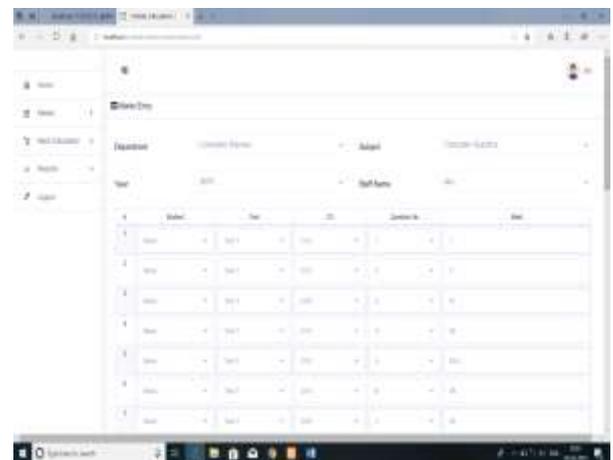


Fig 6.1 Internal marks entry page.

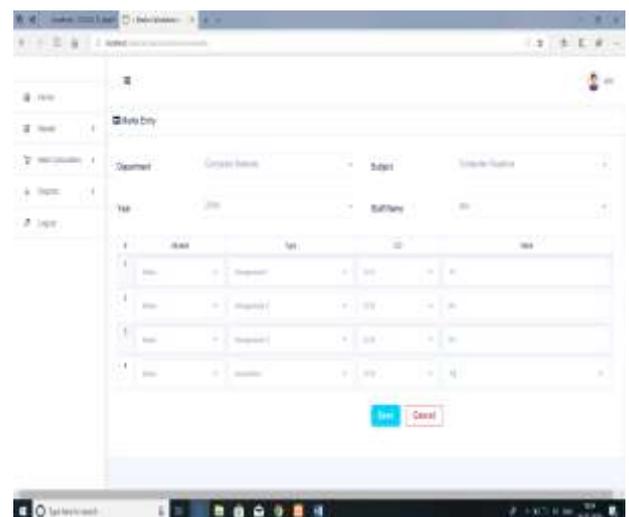


Fig 6.2 Assignment/Internal mark entry form.

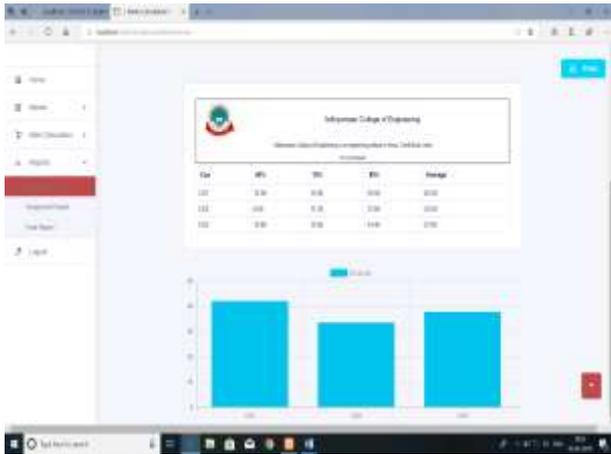


Fig 6.3 CO's average and graphical representation.

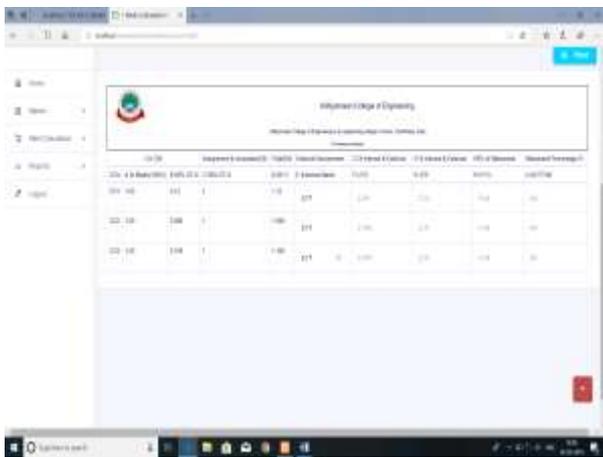


Fig 6.4 CO percentage attainment.

7. CONCLUSIONS

- Information is an indispensable tool and many schools and other organization use the advance decision making. Large amount of student's data is generated either manually or electronically in every institution on daily basis.
- The manual system can work well with less population but doesn't provide long term storage of the data and for future use. Also, the values calculated are approximate.
- An integrated system provided whole new way of calculating the CO attainment percentage with appropriate results. Also, the values can be stored and used for long term. The end result can also be printed.

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