

Improving College Working Efficiency Through Design and Development of A Computerized Information System (CIS)”



Computer Science

KEYWORDS : Computerized Information system (CIS)

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ABSTRACT

This paper focuses on how information system is beneficial for undergraduate colleges. The purpose of designing and development of a Computerized Information System for undergraduate college(s) provides a simple interface for maintenance of student information. It can be used by educational organization or colleges to maintain the records of students, Faculty and staff etc. easily. The students information is important for colleges as well as universities. Computerized information system deals with all kind of student information details, academic related reports, college details, course details, semester details, attendance etc. It tracks all the details of a student, from day one to the end of the course, which can be used for all reporting purpose, tracking of attendance, exam details in system. It will also have faculty details, batch execution details, students' details in all aspects, the various academic notifications to the staff and students updated by the college administration. It also facilitate us explore all the activities happening in the college, Different reports and queries can be generated based on vast options related to students, course(s), faculty, examination of semesters for the entire college.

I. Introduction

As on today there are number of computer courses like BCA, BCS, BSc (Computer Science), MCA, MSc (Computer Science), MCS, BE (Computer Science), B Tech (computer), M Tech (Computer Science) are running in India through UGC & AICTE. At state level computer courses are running through state universities and DTE. If you see the syllabus of these courses then it is prepared by university of that particular state and all the colleges affiliated to that university follow this syllabus. Whatever the syllabus prepared by universities is not updated regularly. In computer field day by day new technologies are arriving like programming languages, database technology etc. So university needs to update their syllabus regularly as per market change.

Colleges need to follow all rules & regulations of university and AICTE. Also colleges require to maintain infrastructure required to conduct course(s) which include computer lab, reading room, hardware, software, colleges appoint faculty, Lab Assistant. as per UGC & University norms. Today number of colleges who run these courses having not sufficient infra available i.e. number of computer, software's, hardware's, networking, Internet etc. So due to above reasons quality of students is very poor or low. So if they pass out and going for job then they occurs different problems to achieving job, maintain quality of their role etc.

The design and development of a Computerized Information System (CIS) as an user interface is to replace the current manual working of. College activities. Staff are able to directly access all aspects of a student's academic progress through a secure information system. The system utilizes admin authentication, faculty authentication displaying only information necessary for an individual's duties i.e. to create or update information in that system. In addition to a staff user interface, the system plans for student user interface, allowing users to access information. All data is stored securely on database managed by the college administrator and ensures highest possible level of security. College relied heavily on paper records for this initiative. While paper records are a traditional way of managing student data there are several drawbacks to this method. Faculty taking attendance on class and if any details required related to attendance then check papers for that, To maintain marks details Paper records are difficult to manage and track. The physical exertion required to retrieve, alter, and re-file the paper records are all non-value added activities. This system provides a simple interface for the maintenance of student information. It can be used by educational organization or colleges to maintain the records of students easily. Achieving this objective is difficult using a manual

system as the information is scattered, can be redundant and collecting relevant information may be very time consuming. All these problems are solved using computerized information system. The paper focuses on presenting information in an easy and intelligible manner which provides facilities like student details, Faculty details etc. thus reducing paper work and automating the record generation process in an educational organization.

II. Purpose of designing computerized information system

The purpose is to design a information system for undergraduate college, which contains upto- date information of the students, staff, attendance, marks etc. that would help to improve efficiency of college while record management.

III. System Design

This deals with data flow diagram, detailed flow graph, requirement analysis, and the design process of the front and back end design of the student information management system.

i). Data Flow Diagram (DFD)

A data flow diagram (DFD) illustrates how data is processed by a system in terms of inputs and outputs. As its name indicates its focus is on the flow of information, where data comes from, where it goes and how it gets stored. Flow of data through different entities is shown in fig 1.

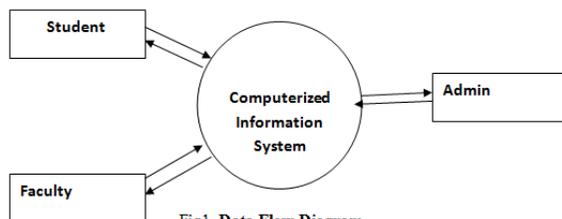


Fig1. Data Flow Diagram

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ii. Detailed Flow Graph

The design of the computerized information system includes the design of the home page which provides the way for all the students, Faculty and admin to access the CIS. Faculty and admin of the CIS has a username and password provided by the system. The home page mainly contains a students, and Faculty, admin can login to the system by entering the username and password provided by the system. The detailed Flow Graph shown in fig.2

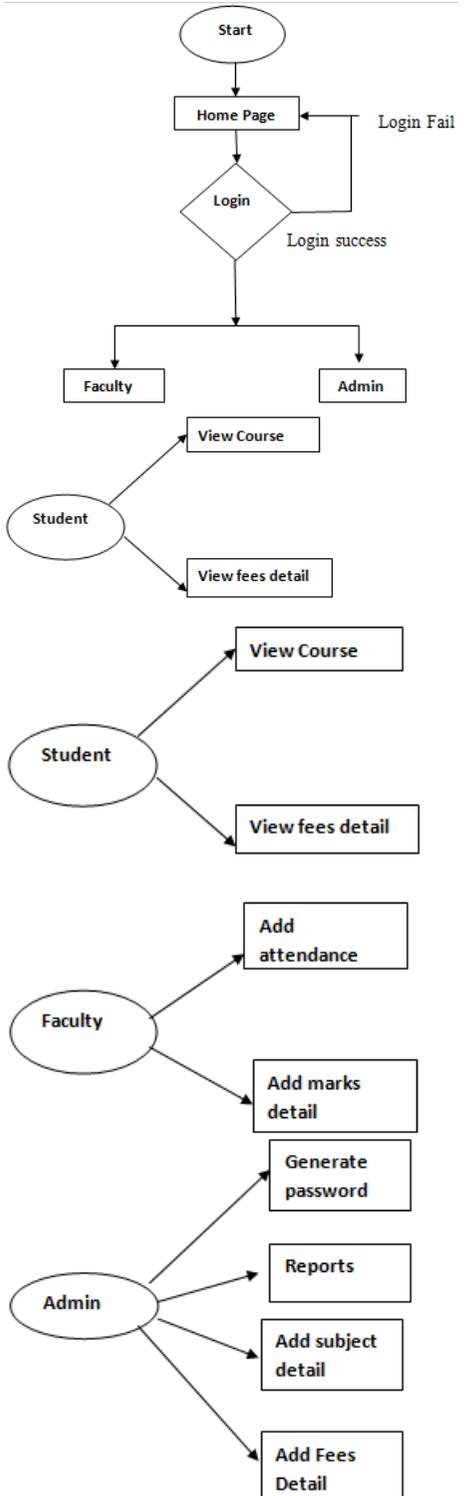


Fig.2 Detailed flow Graph

STUDENT: The student is a main part of system' so student place central focus of system. Student can see their details; also student can check their fee status. He can check their internal as well as external marks details. Student sees their attendance of semester. Student see college details and course details their syllabus.

FACULTY: The staff can update the information regarding the student's attendance, internal marks, External marks of the students and any information regarding the subjects they handle.

ADMIN: The administrator is responsible for entering the new student, managing the student accounts like any changes regarding to the name, address etc. The administrator also manages the faculty accounts like entering a new faculty, The administrator also updates the college related information like course detail ,syllabus of course etc. The administrator will check the all the updates i.e. student updates, faculty updates, passwords etc. The administrator has the highest level of power in the computerized information system.

IV. Screens

Home page

The system starts with main Home page.



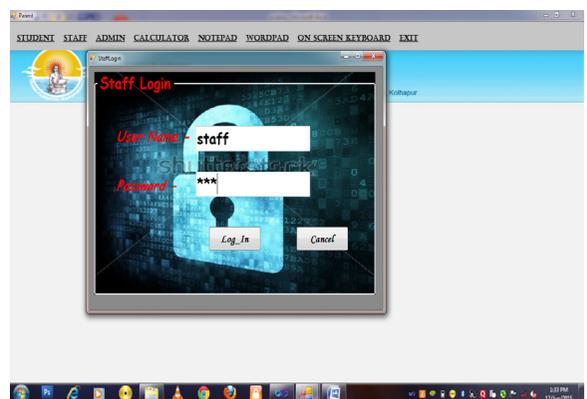
Fee Details

It shows Fees details which contain total fee and installment of fees.



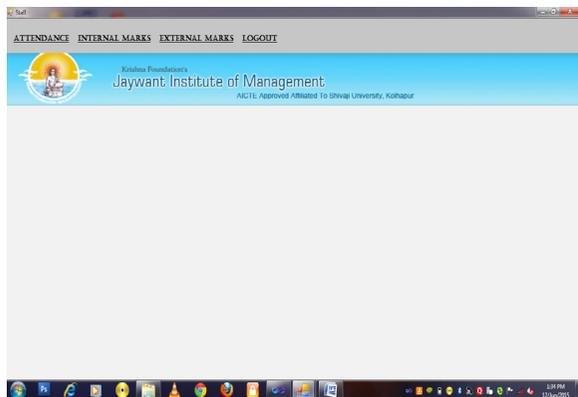
Staff Login

Faculty can enter username & passwords for accessing system.



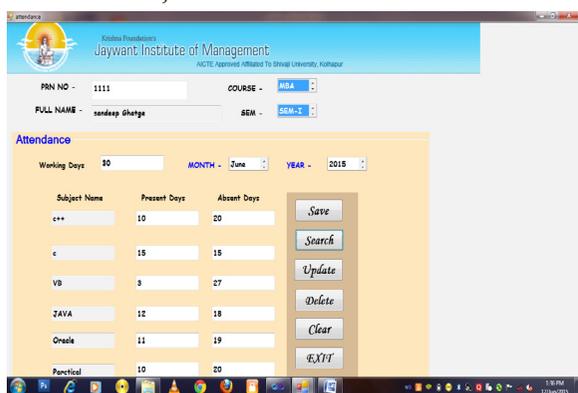
Staff Home page

It includes all details of faculty task.



Attendance Details

It shows each subject attendance details of the student.



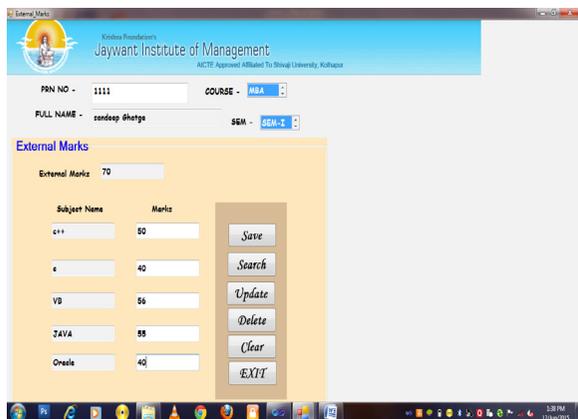
Internal Marks

It includes details of internal marks.



External Marks

It includes details of External marks.



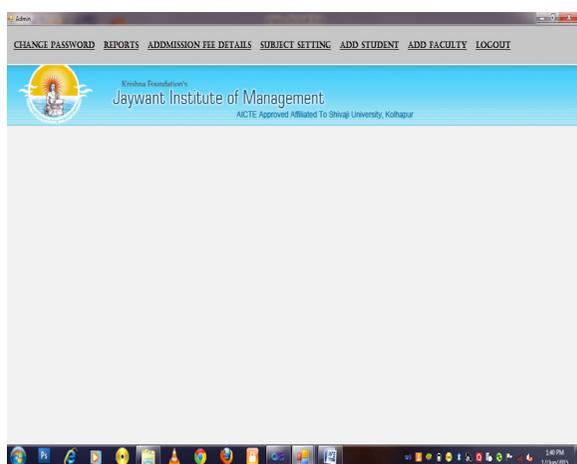
Admin Login

Faculty can enter username & passwords for accessing system.



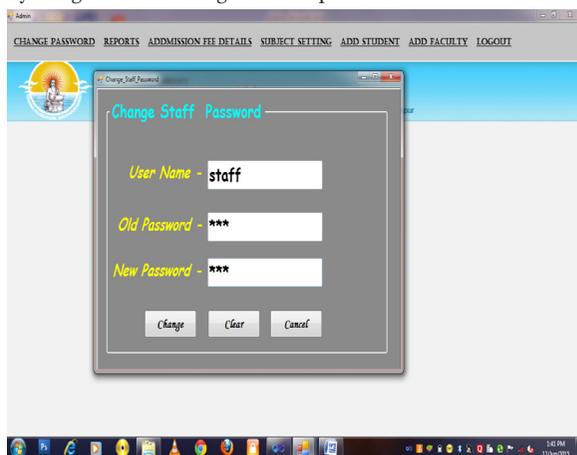
Admin Home page

All the admin task details are shown.



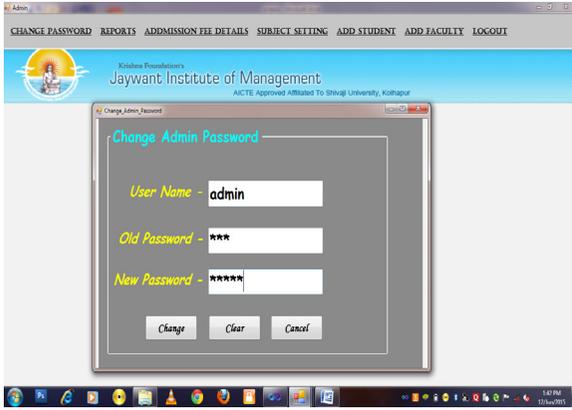
Change staff Password

By using this form change the staff password.

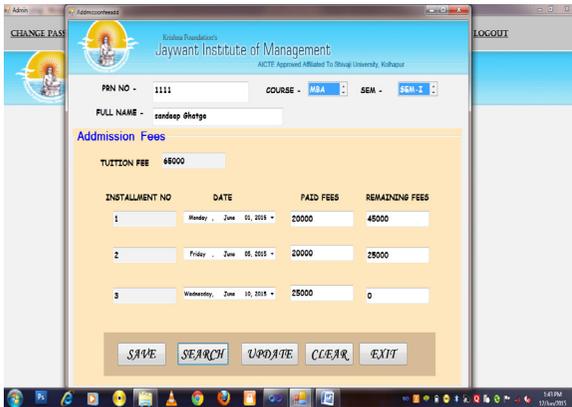


Change admin password

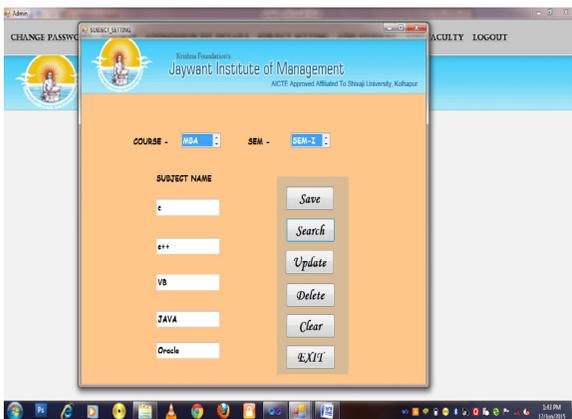
By using this form change the admin password.



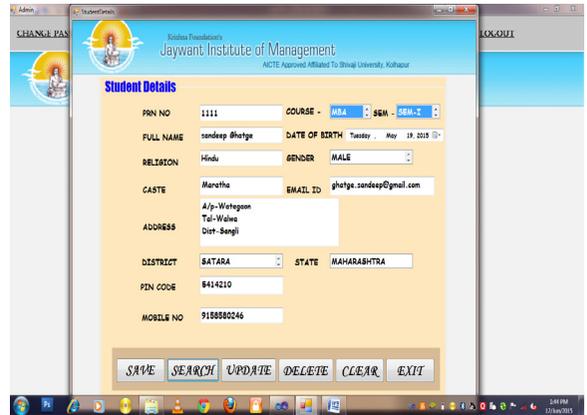
Add Fees Detail
Administrator can add fees of students .



Subject setting
Administrator can set the subjects for particular course & semester.



Student details
All the students data is feed by using student details form.



Staff Detail
Staff information is submitted using staff detail form.



V. Conclusions

Computerized information system for automating the existing manual system gives better results and improves performance of colleges. It enables to get accurate & details of activities carried out in colleges. Information stored in the database of system is accessed anytime as and when required, which in turn is used to make decisions for carrying out educational and organizational activities. Thus CIS is found to be useful to colleges for improving efficiency.

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