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Features of Collegiate Departments of Students and Faculties Attendance Management System

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Abstract: *Collegiate Departments of Student and Faculties Attendance Management System deals with maintenance of students. It creates a student arrival based on the class. It maintains daily basis, the employees will be given to the username and password for employees to create the student arrival. Staff who's handling the particular course is responsible for all students. The report will only be calculated if the student and faculty poses the specific date, student, faculty, monthly and coordination is based on the arrival report.*
Keywords: *Attendance System, Collegiate Departments, Student Reports.*

I. INTRODUCTION

- ✓ **Definition :** Collegiate Departments of Student and Faculties Attendance Management System is Software developed for daily Student and Faculties attendance in colleges and institution and schools also. It helps to access the attendance information of a particular student in a particular class and Information is sorted by operators, which are assigned by a teacher to a particular class. The system will also help assess a student's attendance eligibility criteria.

- ✓ **Objective :** The objective of developing the Collegiate Attendance Management System is to computerize the traditional system of attendance registration. Another purpose of developing this software is to automatically generate a report at the end of the session or in the middle of the session.

- ✓ **Purpose :** The purpose of the program is the software installed system, i.e. the project is developed as a desktop application and it will work for a specific company. But then you can modify the program to run it online.

- ✓ **Overview :** The Collegiate Departments of Student and Faculties Attendance Management System consists of two main modules for proper functioning:

  - ➢ The first batch administrator, which has the right to create space for the new batch. Any entry of new teachers. Update on course and send notification if required.
  - ➢ The second module is handled by the user, which may be an error or an operator. The user has the right to generate daily attendance and report.

Fig:1. Introduction (Collegiate Departments of Student and Faculties Attendance Management system)

II. SYSTEM ANALYSIS

Analysis can be defined as breaking down any whole to discover their nature, function etc., Defines design to create preliminary sketches; To draw a pattern or outline for a project. To plan and take on a particularly art arrangement or artful wall. May include computer analysis and design. A collection of techniques and processes, a community of interests, is characterized as a culture and an intellectual Orientation. Various tasks in computer analysis include:

1)Understanding the application, 2) Planning, 3) Generating a candidate solution, 4) Conducing trade survey, 5) Conducting cost benefit analysis, 6) Recommending alternative solutions, 7) Supervise, install and maintain the system, 8) This system manages the analysis of report generation and generates manual input form students and Faculties

III. REQUIREMENT SPECIFICATIONS

a) Hardware Requirements:-

RAM	**:**	2 GB
HARD DISK	**:**	500 GB
Processor	**:**	Inter core i3, i4, i7, i11

b) Software Requirements:-

Operating System	**:**	Windows Operating system
Front Design	**:**	Visual Studio (Any Version)
Front End Language	**:**	Asp.Net
Back End Language	**:**	MS-SQL SERVER

c) Functional Requirements:-

Attendance Management System involves the following functions:-

- ✓ Easily track attendance information of Students and Faculties.
- ✓ Quickly produce attendance bulletin.

d) Non – Functional Requirements:-

i) Performance: Easy Tracking and Updating of Records. All Performance related requirements The properties of the system are mentioned in the under section below. There are two types of requirements.

ii) Static Requirements : These requirements do not impose any restriction on implementation properties system. They are :

- ❖ **Number of Terminals :** The software uses an underlying database that resides on the server, while on the front end administrative and departmental computers and online access to students and faculty.
- ❖ **Number of users :** The number of users may vary because this software finds application in almost all fields system.

Dynamic Requirements:-

These indicate constraints on the performance characteristics of the system. They usually include the answer across time and system. Since these factors are not applicable to the proposed software, it is sufficient if the response rate is high and the transactions are accurate and fast.

- ❖ **Reliability :** The software cannot be connected to a centralized database, LAN in College if the server crashes due to a hardware or software failure.
- ❖ **Availability :** This software is only available to authorized users of college Student attendance, faculty attendance and Student to see the course they are enrolled in, Administrator to improve student records.
- ❖ **Maintainability :** Backups for database are available
- ❖ **Design Constraints:** This software provides security. The login form prevents misuse of the system unauthorized users. Only the authorized operator will be given the rights to modify the requirements. The software is reliable and fault tolerant. The developed system is designed to handle the fallacy inputs. Since reliability is a major area of concern, the system has a backup to avoid data loss. User must be familiar with the programming language used to develop software.
- ❖ **Portability:** The software is a window based application and is built on ASP.NET and MYSQL, hence it is cross platform. Standalone and operating system independent.

IV.PROJECT DESCRIPTION

a) Problem Definition : This system will reduce manual work and avoid unnecessary data. By maintaining If the attendance is done manually, efficient reports cannot be generated. The system can be built efficiently on a weekly basis, coordinate the report based on attendance. It is because it is maintained in the attendance registers maintenance

for a long time was a difficult task for managers and employees. Instead the software can be long and hold retrieve information when needed.

b) Project Overview: There are two main modules of the collegiate attendance system. The active administrative module reserves the right to create any new entry of faculty and students details. Users has right to create daily attendance and report. Attendance report can be given and taken student details, date and class details.

c) Module Description : The system should be designed to be accessible only to authorized persons some specific blocks. Records should only be changed by administrators and not by anyone else. The user should always be in control of the application and not vice versa. The users interface should be consistent so that the user can handle the application easily and quickly. Application vision, conceptually clear.

i) Head of the Department module

Fig:2 Login Page

Fig:3 HOD Module

Student Details:

In this block the roll number and personal details for the new block are allotted. It creates Student's personal details and academic details.

Fig: 4 Students Add

Faculties Details:
It helps assign subject and subject code to specific employees.
It provides the faculty for employees to have a username and password.

Fig: 5 Add Courses

Fig: 6 Add Subjects

Fig : 7 Add Faculties

Report Details:

The Report can be compiled daily, weekly and the weekly report receives all hour details from the start date to the end date of the visit and displays the status. The consolidated report provides all student attendance details from first date to last date. Eligibility criteria for students to take the exam.

Fig: 8 Report Generation

i) Teacher Module

Attendance details

This allows staff to mark student's attendance for their lesson. It will recognize employees before entering.

Fig: 9 Take Attendance

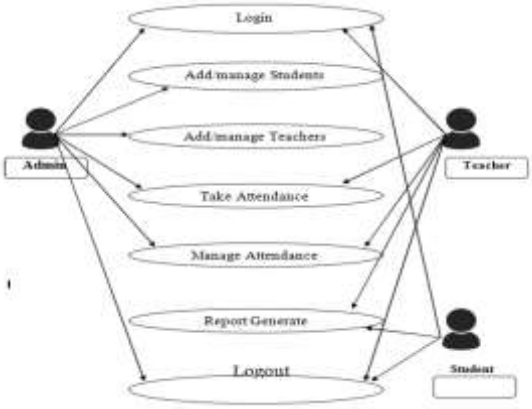
Report Details

Weekly report gets details of attendance from start date to end date and show status. Integrated report status help to get all student attendance details from start date to end date. Eligibility criteria of Students to appear in the Examination.

ii)Student Module

Create a report: Get attendance details from start date to end date and show status.

V. SYSTEM SEQUENCE DIAGRAM



VI.SCOPE FOR FUTURE DEVELOPMENT

The Project has a much broader scope in the future. The project may be implemented on Intranet in the future. In the future, when the need for it arises, the plan will be updated as it is very high Flexible in terms of expansion. The space manager is ready with the proposed database software. A fully functional client can now manage, so the whole job can run better, Accurate and error – free method.

VII. TESTING METHODOLOGY

A strategy for software testing should accommodate the low-level tests needed to verify it. The small source code segment is executed correctly and the key verification high level tests. The system works against customer requirements. Provide guidance to a strategy trainer and a set of milestones for the manager. Because the steps of the technique occur at a time Deadline pressure begins to increase, progress should be measurable and problems should emerge as soon as possible Possibility. The following test techniques are well known and the same strategy is followed during this time Project testing.

Fig:10 Software Testing

Unit Testing: Unit Testing focuses the verification effort on the smallest unit of software design – the software component or volume. Unit testing is white box oriented. Unit test is implemented in every batch of students attendance and faculties attendance management system. By providing proper manual input into the computer, the data is saved database and retrieved. If the module needs to access input or receive output from the end user. Any error will return a time handler to indicate what type of error will occur.

System Testing: System testing is actually a series of different tests, the primary purpose of which is to perform a through exercise Computer based system. Below we have described two types of tests taken for this project. All working modules should be checked based on the input. If you want to change any values or entries. All information will be changed. Hence specified input is necessary.

Result Analysis:
After doing more research through old books and some research papers and correcting more errors, finally I got 94.57% success through this research. This has reduced time by taking a student's attendance and teacher's attendance register reports etc. in an easy to find facility. And the importance of this research is to reduce the time of work.

System Result : 100% of working
Project Result : 94.57%

VIII.CONCLUSION

Attendance Management System is developed using C# (C- Sharp).NET. The Objectives of the organization for which it was created. The system has reached a steady state all errors have been removed. System performance and all run at a high level Faculties and users associated with the system understand its advantages. The system solves problem it is intended to be solved as a requirement specification.

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