Project Proposal

[STUDENTS ATTENDENCE MANAGEMENT SYSTEM]

[GROUP 04]

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Introduction

The students management system integrates multiple features to simplify workflows for students, demonstrators, and medical center staff, ensuring a centralized and transparent process. When the student sign their attendance, the demonstrator can input the attendance to the system. If a student want apply a medical, the student can request a medical through the system. Each student has a dedicated profile where their medical requests and related data are stored. When the medical center approve the medical, automatically update the attendance schedule. Students can log into the system to view their detailed attendance schedule, including attendance status for each session and approved medical leaves.

Motivation

We chose this project because attendance management is a common yet time-consuming task in educational institutions. Our system aims to address these challenges by automating key processes, reducing errors, and providing real-time access to attendance data.

Usages

Demonstrators: Record student attendance directly into the system.

Students: Submit medical leave requests and view their attendance schedules.

Medical Center: Validate and approve medical leave requests, which automatically update attendance records.

Importance of aspects

Core entities such as Student, Attendance, Demonstrator, and Medical request are modeled as classes, encapsulating relevant data and behavior. All attendance records and medical requests are stored in a centralized database for secure and efficient data retrieval.

Requirements Analysis and Design

According to the project requirements, six basic classes are needed. Lecturers, Demonstrators Students are the main classes of this project as daily users. For administrative purposes, a class called admin has included. For medical requirements, there is another important class belonged to medical center procedure. This is the class structure of this project. In addition, Lecturer and Demonstrator classes can be extended from Staff class. Basic data and functional requirements have been mentioned bellow.

University person class

All following classes become child classes of this class.

Data Requirements

- E-mail

- Password

Functional Requirements

- Login

- Sign in

- Sign out

Staff class (Parent class of Lecturer and Demonstrator classes)

Data Requirements

- Department

- Name

Functional Requirements

- Schedule or cancel lectures

Lecturer class (Extended of staff)

Data Requirements

- Lecture ID

- Title (details about lecturer qualifications.)

- Cause modules[]

Functional Requirements

- See students' attendance and marks to final grade

- Message students and Demonstrators

Demonstrator class (extended of staff)

Data Requirements

- Index

Functional Requirements

- Attendance update

- Message students and lecturers

Student class

Data Requirements

- Student ID
- Name
- Department

- Section
- Cause modules[]
- Attendance[]

Functional Requirements

- See lecture schedule

- See attendance sheet

- Medical request

- See notifications from demonstrators and lecturers

Admin class

Data Requirements

- Admin ID

Functional Requirements

- Register and un-register student for cause modules

- Lecturer allocation

Medical center class

Data Requirements

- Medical officer ID

Functional Requirements

- Approve or reject a medical request

- Save reports

Teamwork

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U.T.T. Silva	
D.K.T. Uthpala	Introduction Motivation Usage
K.N. Chathurya	
C.R. Achini	Importance of aspects