STUDENT ATTENDANCE RECORDING SYSTEM

A **Introduction to Computing Project**
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NAME OF RESEARCHER

Casulo, Kyle R.
Colanse, Jan Rey P.
Dela Peña, Threcia C.
Nacasabog, John Jeric F.
Villacarlos, Kristine Amor A.
Villaro, Gabreyl Antonio M.

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CHAPTER 1

THE PROBLEM

Introduction

In today's generation, technology has become one of the essential tools in transforming any manual task into an efficient and automated system. There are many institutions now that are already using technology to make their work easy, one of them is the educational institutions that are continuously adapting to any digital solutions that would help improve their daily operations, including attendance recording, which is important for academic management. Recording the student attendance is not new; traditionally, it is done manually using a record book, which is time-consuming and also leads to inaccuracies and misplaced records. To address these issues, there is a growing need for a computerized system that will ensure the accuracy, accessibility, and convenience in managing the students' attendance. Through this system, teachers can easily monitor their students' attendance without doing it manually, making its process quicker. It also helps improve the record management and ensures that the student attendance is properly stored in a safe digital database.

The proponents proposed that this student attendance recording system is to automate and simplify the process of tracking the students' attendance, so Teachers can easily mark their students' attendance quickly using a phone or computer, and the system will save the data automatically, reducing any kinds of errors. This system also helps reduce the need for manual logs and paperwork. It also helps Teachers in tracking their students' activity, and it also works in any type of classes, online or face-to-face. Class advisers or coordinators can also generate the monthly attendance reports, and they are also able to view the summaries of each student, which makes it easy for them to analyze the attendance trends of each student. Organizing the attendance data in digital form promotes a better and reliable record-keeping system.

Through this proposed system, the proponents aim to enhance the efficiency of attendance management within the schools and improve communication between the teachers and administrators. The students' attendance recording system not only saves time but also minimizes human errors, and it provides a structured platform for monitoring attendance.

Statement of the Problem

The traditional method of recording student attendance using paper and record books has always been time-consuming, and it is also prone to human errors, and difficult to manage. Teachers and school administrators often face challenges in imaging the student attendance records, like inaccurate attendance data, misplaced or damaged records, especially if the teacher is handling a large class. These issues affect the teachers and administrators in monitoring the students' attendance and generating accurate records, not just the accuracy of the attendance reports, but also the efficiency of the academic management. To address these issues, there is a need to develop a computerized Student Attendance Recording System that

will help to automate the attendance process, reduce the manual workload, and ensure data accuracy and accessibility.

Objective of the study

The main objective of this study is to design and develop a Student Attendance Recording System that will automate the process of recording and managing the students' attendance. This study aims to:

- Develop a computerized attendance recording system that could help teachers record attendance quickly and accurately.
- Provide a secure and organized digital database for storing and managing the attendance records.
- Improve the efficiency of attendance monitoring and strengthen the coordination between the teachers and administrators through a reliable digital system.

Scope and Limitations

Scope

- The system is designed for teachers, class advisers, and school administrators in educational institutions.
- The system allows users to mark attendance, view attendance history, and generate summary reports efficiently.
- The system is accessible on both computers and mobile devices, suitable for online and face-to-face classes.
- The system aims to replace manual attendance methods with an automated and reliable approach.

Limitation

The system is limited only to the creation of a student attendance recording and does not include the other school management modules, such as grading, enrollment, or class schedule. The system is designed primarily for attendance purposes, and it does not support biometric or RFID technologies; it focuses on manual input through a computer or mobile device. The system does not require internet connectivity to operate, but its functions are limited to local data storage. It is also limited to a small group of users, such as selected teachers and students, for testing and evaluation purposes. The system security features are basic and intended for small-scale use; large-scale implementation or integration with existing school databases is not covered.

System Requirements

1. Hardware Requirement

 Processor: Any modern CPU (Intel Core i5)

Memory (RAM): 8.00 GB

Storage: 238 GB

Input Devices: Keyboard (for entering names, I'd number and etc…)
Mouse(to select items on the screen and to give instructions to your computer to perform tasks.

Output Devices: Monitor/Display

2. Software Requirements

Operating System:

Google Docs

WPS

Python Interpreter:

Python 3

Code Editor:

Visual Studio code

Phyton Compiler

Flow chart