***PHP Programming***

**Project Synopsis**

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*Class:* Third Year

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**Topic / Title:**

A simple and user-friendly Attendance Management System.

**Abstract:**

Attendance Management System is software which can be used for recording, modifying, managing, and displaying student attendance in schools and colleges. It facilitates access to the attendance information of students studying in a school or a college with respect to date and presence. The teachers or professors are provided a Login ID and Password through which they can make use of the system for the attendance of their subject or course. This same system, after undergoing a few modifications in accordance with data and functionality, can be used by the bosses or managers in offices and organizations to record, modify, manage, and display the attendance of employees working in their team or department.

**Purpose / Objective:**

The purpose or objective of developing an Attendance Management System is to computerize the tradition way of taking attendance. This would involve no paperwork, thus reducing the risk of error. It would also reduce the amount of time required for marking the attendance. Being a computerized system, it would guarantee accuracy. The system would eliminate manual work, which would thereby make the management, storage, marking and displaying of attendance easy.

**Tools and Techniques (Platform and Languages):**

* *Front-End Development (Client-Side Scripting):*

HTML (Hyper Text Markup Language).

* *Back-End Development (Server-Side Scripting):*

PHP (Hypertext Preprocessor or Personal Home Page).

* *Database:*

MySQL (‘My’, name of one of its co-founder’s daughter, Structured Query Language).

* *Server:*

XAMPP (Cross-Platform, Apache, MySQL, PHP and Perl).

(MySQL has recently been replaced by MariaDB in the latest versions).

(It contains additional features and software like phpMyAdmin, OpenSSL, XAMPP Control Panel, Webalizer, Mercury, Tomcat, and Firezilla).

* *Code Editor:*

VS Code (Visual Studio Code).

**System Requirements:**

* *RAM:*

256 MB or more.

* *Hard Disk:*

40 GB or more.

* *Processor:*

Intel Pentium 4 or above.

* *Operating System:*

Windows (Preferred) / Linux / MAC / Solaris / FreeBSD.

* *Web Browser:*

Chrome (Recommended) / Mozilla Firefox.

**Functionality:**

The Attendance Management System would consist of a home page which would display its name. The administrator of the system can access it by entering the Login ID and Password in the fields provided for the same. The administrator would also have an access to the database, which would contain a table with columns like Student ID, Name, Enrollment Number, etc. Attendance records can be fetched by the administrator for a particular student, or a particular date. These records can be displayed using some simple controls. Present or Absent status of a student can be marked, unmarked, or modified whenever required. Records of Student IDs, Names, and Enrollment Numbers can be added, deleted, and modified as well.

**Features:**

* *Secure:*

The system will ask the administrator to enter the Login ID and Password everytime the data is to be operated upon. Thus, only the administrator can access and modify the data. This ensures that there is no breach of security protocols and the privacy is maintained.

* *Error Handling Mechanism:*

If the data entered by the user is not of the appropriate data type, or if some field is left blank, an error message will pop up. The user can then make changes accordingly. This ensures that the system is easy to use.

**Conclusion:**

Attendance Management System can prove to be a beneficial software as it would help the users do off with the tedious manual method of marking attendance. It would save time, reduce effort, and would prove to be an asset by enabling efficient management. It would require minimal human interaction and would thereby reduce chances of errors. Along with this, security and error handling are assured which make it a complete and reliable system to work with. Thus, using the Attendance Management System would be a smart and easy way of managing attendance.