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TECHNOLOGY****AUTOMATIC STUDENT ATTENDANCE****Rupali Rakshe, Yogita Shinde, Bhakti Lande, Komal Talekar, Mr.Phulwade S.P.**  
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**ABSTRACT**

Project of attendance management system by using Web application is definitely based on the computer. This project is used to determine eligibility criteria of the student in order to meet the requirement of examination system. In overcome the drawback manual attendance taking system, this project is developed .Which reduced the time consumption and error problem. PHP is used as the programming language because of object oriented, presence of tools of debugging etc. PHP used as a front-end and MySQL used as the backend. In order maintainesily records students for college server with accuracy, we will design a better attendance management system. The key behind motivating this project is consider to be important.This system will save the times of teachers as well as the students by removing problem of roll calling.

**KEYWORDS:** My Sql, Hod Authorization, searching.

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**INTRODUCTION**

Automatic attendance system due to globalization and easy availability of almost all information on the internet these days, students are does not interested to come, lecture rooms and laboratory. Why students not interested to attends class in school/college, there are many reasons that students have to go school and to attend class. Some of the listed here student miss and never he/she can to learn at home without attending school such as discipline, making friends, group discuss learning, learning new concept, ideas, and motivation etc. Most educational institutions' administrators are concerned about student irregular attendance. Online Attendance management system allows the institute to keep a daily record of the attendance of students as well as staff, at all levels with the aid of an RFID.

Because of, there is often clear correlation relation between student's attendance, overall academic performance to display. Absenteeism can cause the institution to lose its reputation as well as resulting in inadequate learning sytem on the part of the student. Higher authority in school/university also demands that institutes concerned to the students and education keep a large amount of data, including attendance and absence levels, performance and agreement of the regarding individual assistance. Traditionally students attendance made in attendance register, i.e. registration to all students attendance made in to paper in class. Due to this loss of time for students and the teachers, lack of knowing exactly the students who attended a particular class for instant, validation and insertion of data is done manually. They may be to chance for tampering data. Due to large community of students and teachers, it is difficult to manage manually.

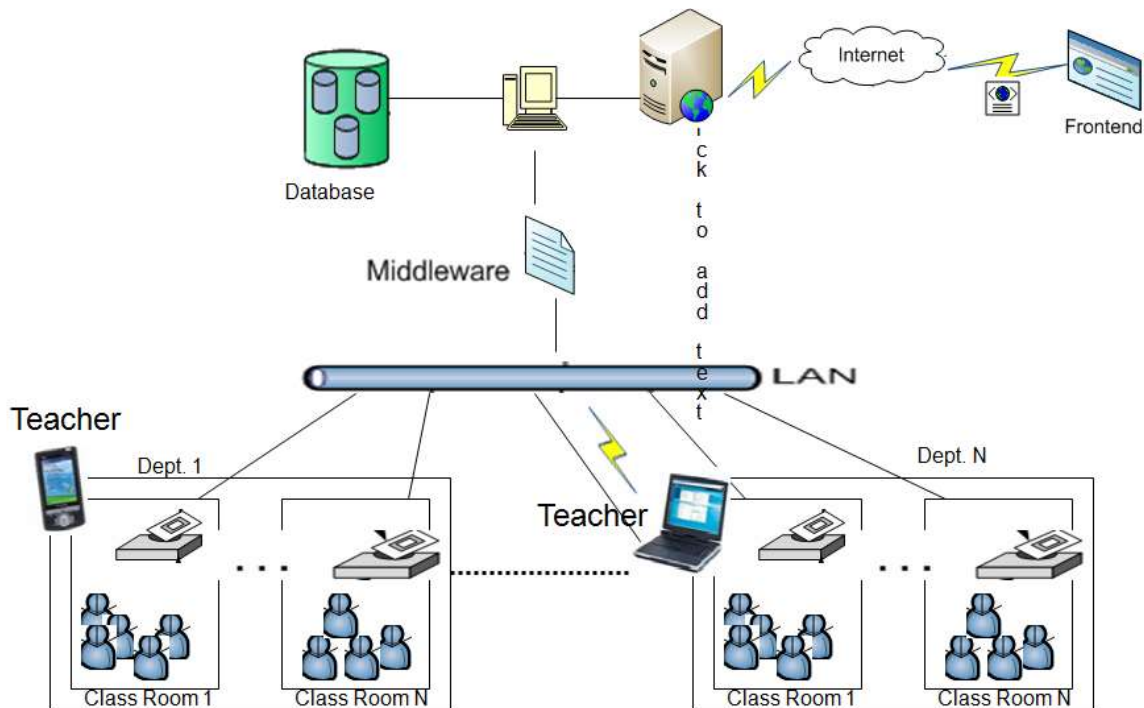
**MATERIALS AND METHODS****Work Structure**

In work section we set our goals and objectives of the project and also provide on the agreement between to following properties. Project Sponsor, Project Manager, Project Team, Steering Committee and other person can associated to affected by the projectThe details of the project plan vary depending on the type of project and organization different system.However, most plans should include the following sections:

- Introduction
- Project organisation
- Risk analysis system
- Hardware and software requirements
- Work breakdown
- Project schedule
- Monitoring and reporting mechanisms

**Architecture**

Figure show the proposed system architecture, in which it has hardware and software components such as the readers, tags, different middleware, database server, application server, hosts and local area network (LAN). All WEB APPLICATION readers are mounted in the central of each class room and connected with existing campus LAN infrastructure. WEB APPLICATION readers powered using Power over Ethernet (PoE). All students and faculty members 'identity card converted with WEB APPLICATION tag. Software running on application server receives events, which having tag different type of id, date, time, and class room location etc. These information pass through middleware sdecrease the LAN traffic which provides the filtering operation.



*Fig of Automatic attendance system*

Running class or lecture reader it can automatically invoked on the basis of predefined schedule and scan all the students tags as well as faculty tag due to running class time. Detected row of WEB APPLICATION data sends to middleware through LAN. Middleware perform web operation to remove unwanted and duplicated data, such as multiple same entry of student's tags id, some garbage data etc. In Application server runs special software which search student tag id stored in permanent database with scanned WEB APPLICATION tags, if tag id match then mark the appropriate presence, the system operation.

We have seen years that the process of manual attendance management has been carried out across almost all educational institutions. The process is not only time consuming part but can not inefficient resulting in the false marking of attendance. Today we need to the not maintain pen and paper based attendance registers. Following this thought, we have proposed an automatic attendance monitoring system based on the concept of web services which is implemented as an Android mobile application that communication between the database residing on a remote server. The mobile application would require connecting to the database using the GPRS or WiFi technology. This paper discusses the proposed system, overview of the various design, modules of the system and its implementation.

**RESULTS AND DISCUSSION**

**Algorithm implement**

*Segmentation using Boundary and spot detection algorithm:*

The RGB image is converted into the HIS model for segmenting. Boundary detection and spot detection helps to find the infected part of the leaf as discussed in. For boundary detection the 8 connectivity of pixels is consider to the boundary detection algorithm is applied.

***k-means clustering algorithm:***

k-means is one of the simplest learning algorithms on the solve the well known clustering problem. The procedure follows a simple and easy to way classify of the given data set through a certain number of clusters (assume k clusters) fixed apriori. The main idea to define the k centers, one for each cluster. These centers should be placed in a cunning way because to the different location ideas different result. So, the better choice is to place them as much as possible far away from various each other. The next step is to take each point belonging to the different data set and associate it to the nearest center. When this no point pending, the first step is completed and an early group age is done. At this point we need to re-calculate k new centroids as the barycenter clusters resulting from the previous step. After we have these k new centroids, a new binding off the data has to be done between the same data set points and the nearest new center. A loop has been generated. As a result of this different loop we may notice that the k centers change their location step by step until no more changes to the done or in other to words centers do not move any more to be accessed. Finally, this algorithm aims at minimizing the objective function and know as the squared error function given by:

where,

$x_i, v_j$  Euclidean distance between  $x_i$  and  $v_j$ .

$c_i$  is number of the data points in  $i$ th cluster.

$c$  is the number of clustering centers.

$$J(V) = \sum_{i=1}^c \sum_{j=1}^{c_i} (\|x_i - v_j\|)^2$$

***k-means clustering :***

Steps:

Let  $X = (x_1, x_2, x_3, \dots, x_n)$  to the set of different data points  
 $V = (v_1, v_2, \dots, v_c)$  be the set of centers.

Step 1:

Select  $c$  cluster at centers.

Step 2:

Calculate the distance between data point and cluster centers.

Step 3:

Allocate the data point to cluster different center whose distance from the cluster center is minimum of all the no of cluster centers.

Step 4:

Recalculate the new cluster center using the data

$$v_i = (1 / c_i) \sum_{j=1}^{c_i} x_j$$

Step 5:

Recalculate to the distance between each of data point and new obtained cluster centers.

Step 6:

If no data point can reassigned then stop, otherwise repeat from (step 3).<sup>[3]</sup>

***Advantages:***

- User Friendly
- Reports are easily generated
- Very less paper work required
- Computer operator control system

***Future Scope***

Student attendance management system by using Web application is developed or designed in order to replace the manual paper work. Because of computerized system, it's have the lot of benefits that is:

- Free trouble to use.
- fast approach to enter attendance
- Efficient reports
- best user Interface
- highly reliable, approximate result from user
- It is also helpful for parents in knowing the status of their children.
- Specially, this attendance management system is designed to allow the head of proctors to manage and control by taking the students Web application for collecting their daily attendance.

- Basically project or system scope is a system on which we installed the software .
- In other words, we can say that it is developed as a desktop application and it will perform all of the activities of attendance taking for a particular institute like university of education.

### **Purpose of System:**

The purpose of this document is to offer a detailed explanation of attendance management system by using Web application. In order to provide a complete and necessary descriptions of the requirements for the attendance management system , this documents will completely explain all the functional and non-functional requirements , design decisions, design constraints , architectural design and the detailed design needed to implement the system. Attendance management system with the purpose of developing the tradition of taking attendance path to computerized.

Other purpose is developing this type of software is to generate reports automatically within a short times. Reports automatically generation may be done in the middle of the session or at the last of session. This system which we are going to design also helpful in protect the proxy which is almost occurs daily in the class attendance.

### **CONCLUSION**

Project of attendance management system by using Web application is definitely based on the computer. This project is used to determine eligibility criteria of the student in order to meet the different requirement of the examination. In order to overcome the drawback of manual attending taking system, this project can developed module .Which reduced the time consumption and error problem. PHP is used as the programming language because of object oriented, and presence of tools of debugging etc. PHP used as a front-end and MySQL used as the backend. a maintain the records of students for university of education with accuracy, we will design a best automatic attendance management system. It is considered to be the important key of behind motivating this project. In this way, this system will remove problems of the roll calling and will save the multiple times of teachers as well as the students.

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