

SMART ATTENDANCE SYSTEM BASED ON FINGERPRINT TECHNOLOGY

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ABSTRACT

Now a day it has been observed that in many organization attendances is necessary for monitoring the attendance of the employees. The current attendance system has weakness with respect to the performance of the system. It is observed that in many cases first and foremost person has to stand in front of attendance machine and in case of emergencies the user has to leave the work. Also most of attendance system which is currently used does not have payment system with respect to human resources software and does not have functionality of generation of payment with the finance department. The person is able to mark attendance only when the person is in campus of organization. So, we introduce a system based on finger print technology and GPS (Global Positioning System) using android device which is connected with payment system that will recover all above problem. As per market research in few years all smart phone having finger print technology.

Keyword: - Location-based service, GPS, time and attendance system, fingerprint technology, android applications.

INTRODUCTION

Here we are going to build up a framework which is totally new and highlight new and advertisement Vance highlights utilizing unique mark. A unique mark in its restricted sense is an impression left by the grating edges of a human finger. The recuperation of fingerprints from a wrongdoing scene is a vital technique for scientific science. Fingerprints are effectively kept on appropriate surfaces, (for example, glass or metal or cleaned stone) by the regular emissions of sweat from the exocrine organs that are available in epidermal edges. These are some of the time alluded to as "Risky Impressions". In a more extensive utilization of the term, fingerprints are the hints of an impression from the erosion edges of any piece of a human or other primate hand. A print from the sole of the foot can additionally leave an impression of contact edges. Think impressions of fingerprints might be shaped by ink or different substances transferred from the pinnacles of rubbing edges on the skin to a moderately smooth surface, for example, a unique finger impression card. Unique finger impression records ordinarily contain impressions from the cushion on the last joint of fingers and thumbs, in spite of the fact that unique mark cards additionally ordinarily record bits of the joint regions of the fingers.

Human fingerprints are point by point, almost novel, hard to adjust, and strong over the life of an individual, making them reasonable as long haul markers of human character. They might be utilized by police or different experts to distinguish people who wish to disguise their personality, or to distinguish individuals who are crippled or perished and hence not able to identify themselves, as in the outcome of a catastrophic event. Unique finger impression examination, being used since the mid twentieth century, has prompted numerous violations being solved.[3] This implies numerous hoodlums consider gloves essential. In 2015, the distinguishing proof of sex by utilization of a unique mark test has been accounted.

LITERATURE SURVEY

The participation framework utilizing just paper and performed physically by calling the name of a current name recorded and set apart as present or not present alongside the notes. Along these lines is not effective, it would be exceptionally tedious in the event that we need to call one by one all the general population who exist on the rundown.[1]

In this paper the participation machine was extremely straightforward, the workers simply embeddings the participation paper or called time sheet into the machine, and the time will be imprinted on the time sheet. Fundamentally, this participation machine comprises of a manual card space or opening to embed the time sheet representatives and a simple clock demonstrating the present time. The time at the point when the representative embed the card into the space is the thing that will be imprinted on the time sheet[2].

In this paper present the second era of participation framework is participation machine advanced which is the participation machine that uses a computerized strategy for the record employees participation presented in 1970. As a rule, computerized participation machine has a couple catches (number and letter set) and a computerized show that demonstrates the time or the content showed [3]. The biometric participation is machine participation machine that employments biometrics to confirm representatives when the doing the participation procedure . Biometrics is an uncommon innovation that is generally utilized as a part of medicinal to distinguish the man by identify certain attributes of people. The attributes of which were recognized utilizing a biometric framework might be as fingerprints, the shape and attributes of the face, the eyes, and the human voice[4].

EXISTING SYSTEM

The prevailing system largely includes physical sign up where in the manager manually inputs the attendance report of all students. Other technologies which have been developed to replace this manual device consist of fingerprint, retina experiment, voice recognition etc. the trouble with current machine is that the guide machine is time eating and the superior technologies are too high priced to be implemented on a big scale in any organization.

Old school scholar attendance machine became a tedious venture to carry out and preserve and additionally time ingesting. Bar codes are much less relaxed due to the fact can be effortlessly reproduced. Guide attendance device may be very time ingesting.

SYSTEM ARCHITECTURE

There are several phases in this research. The first phase is to accumulate sundry issues contained in attendance system that already subsist today. Sundry quandaries include the constraints of subsisting attendance system either manually or electronically. After we amassing the quandaries and constraints, then we design an attendance system that is precise, efficient, and dynamic. The second phase is to perform a variety of literature cognate to attendance systems, biometric methods as utilizer identifier concerned, and mobile systems to be utilized as a platform for the attendance system. The reference amassed by probing online or offline, online journals or obtained by finding the opportune studies cognate objects in the cyber world, while the offline method amassed from sundry media such as books. The third phase is preparations on a research implement, this preparation includes checking the version and type of operating system, check whether the contrivance is being used to fortify of the hardware dactylogram scanner. Checking of availability dactylogram scanner is additionally done, it is utilizable to determine the next step in which if the contrivance already has a dactylogram scanner then no mounting hardware dactylogram scanner again and vice-versa. The fourth phase is learn the subsisting payroll system today and its relationship with the attendance system, this is done in order to ken the extent of integration and the efficacy of the subsisting integration. After all the observations and analyzes carried out, then will proceed with the developing mobile applications predicated attendance system utilizing the android operating system. Then develop the payroll application and integration of these systems with mobile attendance system that has been engendered aforetime. The phase is to perform simulations with predefined scenarios to determine the prosperity of the implementation of the attendance system integrated with the payroll system. Predicated on the results of the simulation will be made conclusions about the efficacy of the attendance system and precision of the data.



Fig. 1. Architecture of smartphone attendance system.

In figure 1 shows our proposed architecture system. There are five components in our attendance system: Smartphone, Parser, Application Server, Administrator Computer and Printer. Fundamentally the research method followed the architecture system in 1. We commenced developing application on android smartphone utilizing java. Then developed the application for admin. The last step was developed parser that can connect all the components in the system.

RESULT

In this research, we build a coding for attendance system to be run on android smartphone, that will be integrated with payment system and human resources application. We chose android smartphone because the number of android users is very significantly voluminous in the world.

A. Attendance Application on Android Contrivance

This application runs on the android contrivance associated with employee payroll application on the admin side through an internet connection. This application will take the information about the user, such as the user's position through the GPS coordinate that is available on the android contrivance, the user's dactylogram that will be matched with a database on the server, and retrieve the date and time when the user is doing absent. With this method, it will ameliorate the precision of the attendance system because it takes a position, the date, and time in authentic time. With this particular method, the employee who works in project out of building withal can do absent and withal there will not long queue anymore. The utilization of user identification by dactylogram method will additionally reduce fraud because the user can not ask friends to do attendance. There are several menu on the main screen of applications, such as About Application and Registration, which is relegated as a second menu bar menu. Then there are two menu again which is a main menu: Attendance and Payroll & Schedule engendered utilizing the button. When users want to utilize this application, then the user has to register the contrivance and user information to the employee payroll application on the admin side, if the user has not been registered, the registration menu can opt to exhibit the registration form. In order to send the information about the dactylogram, the user has to send the dactylogram through the application on the android contrivance as shown in figure 2. Users must put his finger on a dactylogram sensor and press a button that sends the dactylogram scan results to the server, then the server will check whether the contrivance and dactylogram are already registered aforetime or not. After the registration process is done, then the user can do attendance process by putting the finger on the dactylogram scanner.

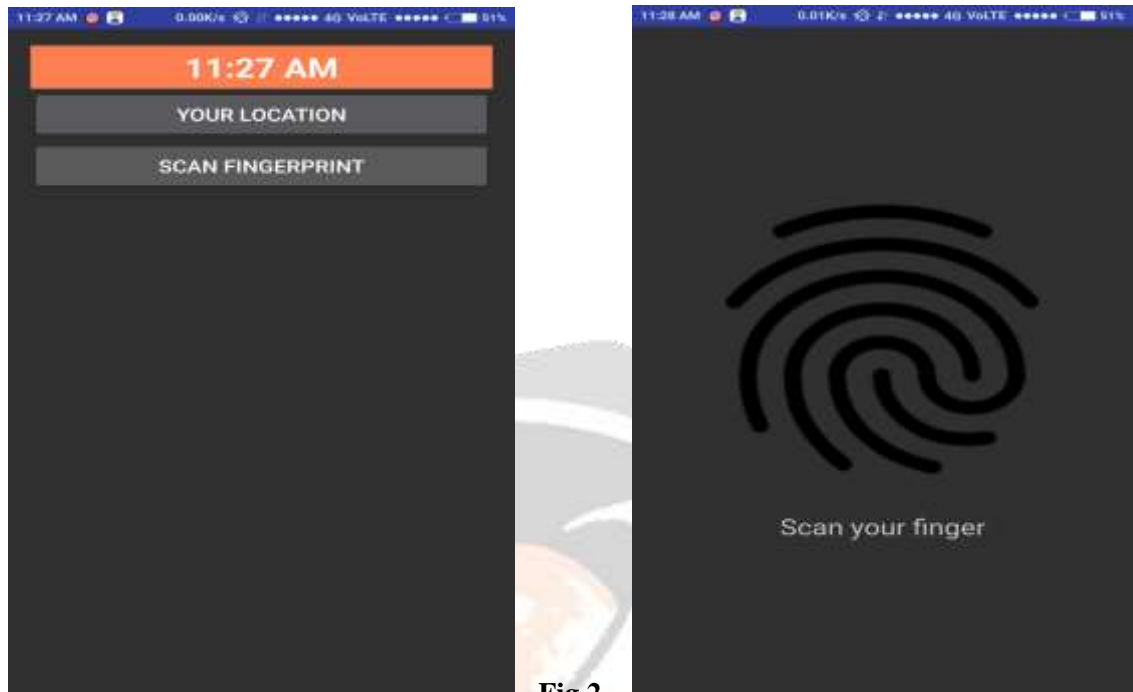


Fig.2.

Finger print scanner on smartphone attendance system

B. Application for admin payroll

At this payroll application, the admin can surmount attendance management of employees. Admin can transmute or engender information about shift employees, integrate or edit employees, and admin can withal exhibit data involving payroll timesheet management and perform logtime to the employee through this application. In figure 4 showed screenshot of timesheet at the admin site. We develop many option or menu and engender database for admin such as employee personal information, longtimes, shift schedule, group employees, overtime payroll, and timesheet.

CONCLUSIONS

This system will be very helpful for the organization where attendance is necessary it will reduced the human work as well as it will save the time. Identification of employees is very easy because of thumb scanning, there is no possibility of cheating for attendance.

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