Employee Tracking System Using Android

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Abstract **- In this paper, an employee tracking system using the Android operating system was developed. All the activities of the Employee will be monitored using this technique. In this system Scheduling, information, and time-off requests are often considered part of personnel tracking; this information will enable managers to know when employees are expected to be in the office or other work areas. This system is very helpful for managers to monitor their employees through mobile phones. It is implemented using the JAVA programming language, and the data was stored in SQLite database. The employee data was collected using document analysis and field Methods and therefore application of relevant analytical methods like bar-charts was used to interpret the facts collected. This system provides increased productivity, reduction of cost, instant access to the employee record.**

Index Terms **- Android Operating System, Tracking system, Employee, JAVA programming and SQLite database.**

1.INTRODUCTION

In a government-owned endeavor, the number of employees needed to perform certain functions could run into hundreds if not thousands. Managing and keeping track of those numbers using traditional methods is a little hard. the necessary for an employee tracking data system to help within the management, monitoring, searching, tracking, updating of the employee records becomes paramount. as an example, some corporate companies have over 1000 employees. From the method of recruitment up to the implementation phase, several data are collected from these employees. The personnel office stores these data manually. Analyzing a specific employee record could take hours to seek out which is not productive in today's fast-paced and technologically driven enterprises. this is often an easy way which currently affects employee tracking system within some corporate organization. Another case scenario might be to keep track of an employee's current department or departments. It's documented that an employee can serve in additional than one department or be moved from one department to another one. Keeping track of those transitions could become slow if no proper system is in situ. during this paper, an employee tracking system supported by Android OS was developed. All the activities of the worker are going to be monitored using this technique. Scheduling information and the day off requests are often considered a part of personnel tracking as this information will enable managers to know when employees are expected to truly be within the office or other work areas. this technique is very helpful for managers to watch their employees through mobile phones. The developed system was ready to increase productivity, reduction of cost, instant access to employee attendance records.

2. LITERATURE REVIEW

Sonal et al (2016), worked on Employee Tracking and Monitoring System based on Android. In their journal they provided different security profiles on the same smartphone. They used different database utility which retrieves data or information from a centralized database. They provided different modes to employees when he enters company premises. Through smartphones all data about the employee phone like their SMS history, Incoming calls, Outgoing calls, Employee Locations, Data usage, Web browser history, and Unauthorized Call History details are tracked. The necessary condition is that Employees must have the Android phone whereas Admin Activities are also monitored. [1]

Aparna, (2013), worked on Smartphone Tracking System, The System is a software that allows manager to monitor their employee's office cell phone. All incoming call details, outgoing call details, text details, emails and multimedia messages can be track and interrupted by the managers, who can also monitor where their employees are, access a history of where

they have been and set up alerts if their employees are going outside of the approved geographical zones, are receiving texts from unauthorized numbers or calls from banned persons. The system helps admin to monitor their employees through mobile phones. It enables organizations can avoid the unnecessary interaction by the employees by monitoring their mobile phone usage and also by tracking their current location.[3]

Priti et al (2015), worked on monitoring employee's smartphone using android software. Their device uses Android based mobile phones for the software to be run. The mobile device in the hand of the Employee should be an Android based device and the Managers also have any kind of mobile device, since the manager is going to get alerts from the Employee in SMS format only. For convenience, the alerts are also saved in the centralized server like the details of incoming call, text messages and multimedia messages and the timely location update of their Employee and their attendance. Manager may later login into the main server and view the details of their Employee's mobile usage. This system is useful for the Managers to monitor their Employee through mobile phones. [2]

Shermin et al (2015), worked on a Smart, Location Based on Time and Attend Tracking System Using Android Application. They provide a smart location-based time and attendance tracking system which is implemented on android mobile application on smartphone reducing the need of additional biometric scanner device. The location of an organization has a specific location, which can be determine by the GPS tracker. Each employee's location can be determined by the GPS tracker using smartphone. [4]

Nirmal, et al, (2016), worked on Employee Tracking System Using Android Smart Phone, their system integrates Employee tracking and GPS location Tracking System using Android phone. All the activities of the Employees will be tracked using this system.

The system works on 3G network between the terminal ends. All the activities of an employee on his cell phone and tablet, like data usage, all incoming and outgoing calls, web browsing and secured document modification and illegal transfer of organization informative details like blueprint, stocks, projects etc. will be set under surveillance. Therefore, the organization will be set to Track that will restrict the unwanted usage of its resources by the employees during working hours. The system was beneficial for the progress of the organization and will allow the admin to check the dedication of his employees towards work.[5]

Ashwini et al (2015), worked on Employee Monitoring System Using Android Smartphone. In their journal all activities such as incoming call, outgoing, missed call, SMS history, web history, data usage, unauthorized call list/web site list are stored on centralized database. Admin can see that history by logging into centralized server. Admin can also trace out employee's current location (through GPS). Employee are going outside of company premises then manager get alert message in SMS channel. They analyzed the employee works by using numbers of unapproved calls and exceeding data usage (good/bad/average/loyal). The device which is given to employee should be android based system. Manager also need android device. It may be any device. This system is very useful for the manager to find out the activities which are done by employee.[6]

Kalyani et al (2015), worked on employee monitoring system using android device. In their journal, they discuss about the design and Implementing admin application, employee application and Centralized server for monitored company employee's using android techniques. The system improves accuracy in managing employees of the company by saving time, reducing manager works; avoid the unnecessary use of company resources which are provided to the Employee for their office use only. [7]

Shoewu, et al (2015) worked on Design and Implementation of An Employee Tracking System In Lasu Epe Campus, Lagos State University, The employee monitoring system is an android system used to track the call logs, sent and receive messages and the GPS location of an employee. The application is implemented using Java script, the application interface was designed with Xml and Php for the automatic alert system. The organizations success depends on employees' performance; poor performance is detrimental to the company's success. It is necessary for an employer to keep track of his employees' at all times to ensure the quality of service

from the employees' and maximum output from them. This paper deals with the design and development of an employee monitoring system using Android which will be accessed from the company's email account.[8]

Avinaash et al (2015), worked on Mobile Attend Management and Employee Registration. User attendance management and employee registration is a mobile application which can be used by the staffs to login their attendance through mobile phone and track other staff's location through mobile phone. Manual registration in iris systems and entering in the attendance catalogues in different physical locations is the current system used in all the colleges. get updates regarding their attendance regularly from the admin as they login and log out so that they can keep a tracking on their attendance by using this application.[9]

Nitin et al (2015), worked on Mobile Activity Monitoring System Using Android device, their system was implemented for tracking the daily activity of the employees with their android mobiles. The information such as missed call, incoming call, outgoing call, call duration, incoming SMS, outgoing SMS along with its current date and time will be tracked and updated to the server this server will be monitored by the administrator. This information can be organized for security purpose of the organization such as leaking the confidential data and maintaining policies of organization.[10]

3. MATERIAL AND METHOD

The program uses Android-based cell phones to perform the implemented software. during this system, we will use different modules, and the main two apps are the employee app and server app. Employee time tracking phone uses data that is going to be stored in a centralized server. The Mobile device which is on the top of the Department's table should be an Android device and therefore the administrative manager can get the alert through text messages only. For detailed data, it is often stored within the centralized server just like the details of incoming call, text, and multimedia messages and therefore the timely location update of their Employee. Managers may later login into the centralized server and consider the small print of their employee's rate of attendance. The classes within the application are often broadly divided into those for UI, background services, data-structure and utility Design of the new system is demonstrated using a CASE diagram as shown in figure 1.1.

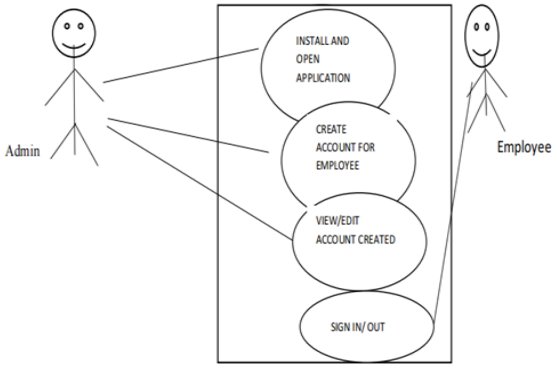

Figure 1: The Case Diagram of the proposed system

figure 2 shows the flow chart of the proposed system, from form the flow chart the application have to be installed in an android phone. From the chart it can be seen that the application was designed for the employee and the employer, the employer is the sole administrator of the application. The administrator uses it to monitor the employee sign in and sign out.

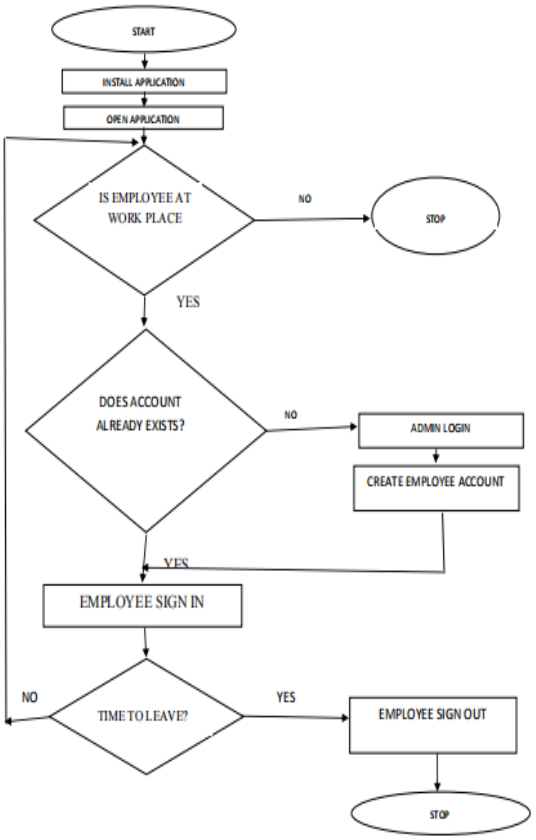

Figure 2. The System Flow Chart of the Android Employee Tracking

5. CONCLUSION

This application allows the managers to update the performance of the employees in their respective areas. This monitoring system is a revolutionary mobile software that uses Android OS for monitoring the time attendance of employees. There is no need for manual entering of the daily activity details of the employee. It completely prohibits the normal way of calculating performances. This will considerably reduce the paperwork and save one's precious time. This application makes good use of the recent mobile development technologies and increases the overall performance of the employees, also has a substantial business value because it reduces hardware and maintenance cost and increases customer's satisfaction.

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