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Automated Payroll with GPS Tracking and Image Capture

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ABSTRACT: Employee Payroll System is one of the core areas of any business and so is attendance. Accounting and management of are the two most essential parts for any company, which cannot be compromised. Payroll is a serious concern for every small and big enterprise. It is mandatory for all employers to pay every employee as per the rules and regulations. The idea of this work is to focus on maintaining the attendance of the employees in the company as well as working outside the company, like outfielders. Not just maintaining the attendance, this system will also track the employee activities to check whether the employee is actually working or not, if yes, how much work has he done for the day. This system is developed for company management and maintains the prestigious reputation of the company as well. This system will be made using android platform. The main aim to design this system for the companies.

KEYWORDS: Global Positioning System, Service oriented architecture , Simple Object Access Protocol, Representational State Transformation , Human Resources, Communications as a Service.

I. INTRODUCTION

In order to obtain a good result of recording the attendance, various methods are used which include either by manual recording or using the attendance machine. Each of these system either lack somewhere or are good to work with because of some reasons. In the manual attendance system, the infrastructure and installation cost is very less, but the accuracy is doubtful. Furthermore, compilation and calculation for preparing the payroll [1] is also more difficult to do than the attendance system that uses machine. The cost of attendance system in the premises would be costly and the number of employees who will use the attendance machine must also be proportional to the number of attendance machine itself, otherwise it could have an impact on the queue when the employee simultaneously wishes to access attendance machine, such as when to come to work and clock out after work. Keeping in mind all the glitches, we have designed our system in a way to overcome these issues. In our system there is a feature to record the employee's position, which is absent in most of the systems. Furthermore, we have introduced an online attendance system on mobile devices and integrated it with the payroll system. It is a system created to overcome the major problems that are faced in manual or electronic attendance system, which is conventionally used today. We utilize Global Positioning System (GPS) [2] and image capturing available in the mobile devices already bye default. We have developed our system based on android platform, since android is the most common platform that is easy to use, free for all and used by most of the people. Using our proposed methodology, the employee can enter daily attendance in their mobile devices and need not be in the queue and even the employees who work outside the office can mark their everyday attendance. Our system mainly focuses on the payroll of the employees who have more of fieldwork or any other work that is not possible in the company premises. The payroll of these employees will be generated through our application, and this will be done by tracking the employee's location using GPS and few other details of the employee like his login time, logout time, name of the company or the place employee visited, etc. The company HR via a web portal will monitor all of this.

II. LITERATURE SURVEY

In an organization there are several departments and each department has payroll section to manage payroll activities. Each section has to perform necessary operations like data collection and preparation, entry, updates monitoring and reporting of data. Many of these existing practices and procedures need to be reassessed at this time of changing needs, changing demands of employees and changing technology so an organization needs a payroll system that would manage the personnel and payroll related details, processing in each department and payroll audit in a more efficient way.[1]
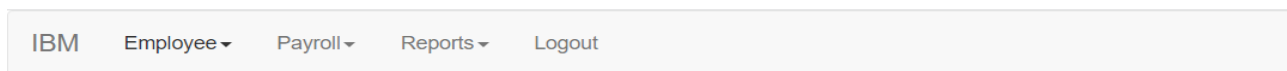
With this payroll system, we Implementing admin application, employee application and MySQL server for monitored company employee's using android technology. In this system we are providing dynamic database utility which retrieves data or information from centralized database. All communication between the Employee phone and the admin is done through network technology. Android Smartphone mobile application is platform, we are implementing a new generation Automated payroll system with GPS tracking And image capturing system called as proposed system. This proposed system has the five requirements respectively. For Easy to implement and add no. of functions, ability to manage many employee efficiently, tracking of employee easily for checking either who is present approved area or unapproved area. Very secured and Low cost[2].

Also to satisfy the above all requirements, the proposed employee monitoring system adopts 3G communication network function between Android mobile terminals, and collects users information using Global positioning system (GPS). In additional we are use one new module such as know the employees image capturing for storing and retrieving related employee details such as Login, Logout , and Location[5][6].
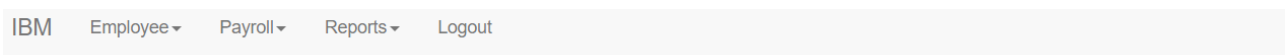
III. PROPOSED SYSTEM

Several authors [1-5], have also attempted to work on the same issue of payroll and attendance generation and have presented the effective systems. This system will focus on the attendance and the payroll of the employee working in the company as well as outside the company doing fieldwork. We have integrated both attendance system and payroll generation, based on the attendance of the employee in one application. We will be tracing the location of the employees who are working outside the company using GPS (Global Positioning System). Through this, we will keep a track on the attendance of the employees outside the company premises. The payroll will automatically be generated based on the attendance of the employee. The HR of the company using a web portal will do all of this.

IV. CONCLUSIONS

The Automated Employee Payroll System will focus on maintaining the attendance of employees, managing the employee's expenses, track the employee's activities, and then calculate the payroll for that employee based on the information gathered. After reviewing various papers regarding similar systems, our proposed system has an integrated attendance system and payroll generation application based on the attendance in one system. With the help of regular GPS tracking of the employee, we can oversee the status of the employee when he is outside the company premises. This information is linked to the employee's database and it is used for the computation of the employee's salary. Deductions like leaves, withholding tax are also automated.

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