

# Design and Analysis of Geographical Attendance Tracking System

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## ABSTRACT

In today's digital age, the need for an educational system is growing in our country as well as in our cities. Currently, all data processing is done manually (based on documentation). This process is also very time consuming and difficult.

So because of this, we are creating a new efficient system by using software, which will be easy and beneficial to see the performance of employee. We take the input through Excel and process it. Therefore, the main objective of this project is to reduce all the paper work. And creating more attractive report in less time.

This software managing an onsite & offsite employee's is huge challenge for any administration. Tagging your onsite & offsite employee's attendance from any location is difficult to organization. So we are implement GEO-ATS is an app and web portal that ensure onsite & offsite employee's management.

**Keywords--** Geographical, Employee, Attendance, Tracking, Login, Google Map, Location

## I. INTRODUCTION

The "Geographical Attendance Tracking System" The Application is based on Website platform it is user friendly. In most hospitals are attendance is taken manually. It is time consuming, but it is also unsecure and unreliable. Some hospitals are using punch card for attendance while using card it difficult for admin to keep track the number of employees by using punch card, and employee can use card other employee or his/her friend to punch their card even other employee may be absent or come late in hospital, so it is difficult for maintain records.

To overcome these problems I have developed a better system which is Web based, it is fully responsive user can use in mobile, tablets.

In this system records are kept safe and secure. The attendance information of all employees of particular shift can be accessed easily and without time consuming, the report is generated automatically.

## II. PROCEDURE FOR ATTENDANCE REPORT

### A. Mark Attendance

Employee mark the attendance itself android mobiles and insert its in time with current location. Same procedure for punch out.

### B. Get Attendance Details

Admin get the employee attendance from Geo ATS website after login. Then select Employee Name or Department and select which month attendance details to get and show attendance details after click on show button.

### C. Final Stage

The final stage of this application is get the all information about employee punch in & out time, current location and its selfie picture.

### D. System Architecture

Admin generate employee attendance and Employee check our attendance report in itself login in mobile. Admin updates employee shift details and store in database.

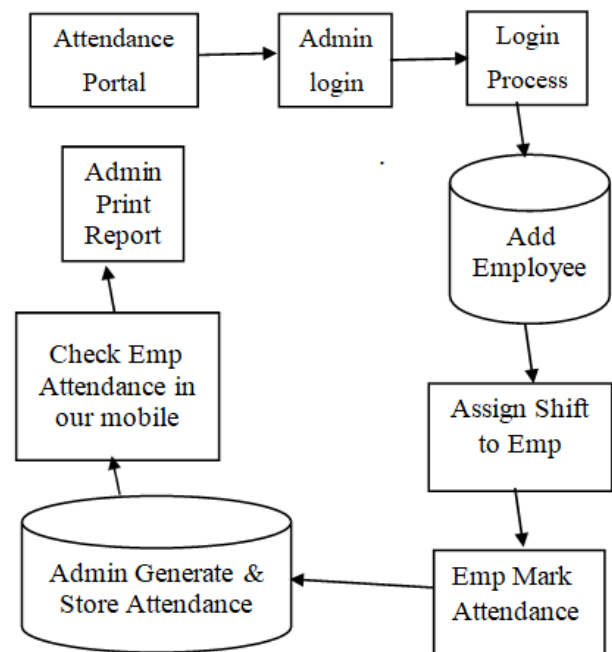


Figure 1: System Architecture

In second level DFD of Employee check attendance. Employee check our attendance with (In & out Time, Selfie and its location). When click on list then check number of punches with geo location markers.

### III. ALGORITHM

1. Employee enter user pin for Login.
2. After Login Success mark attendance. Store details like In Time, Current location and selfie picture.
3. Check attendance report with stored picture, in time and markers on google map.
4. Admin Generate salary. Calculates number of presents and absent with working hours.
5. After Admin generate salary report then Employee check salary.

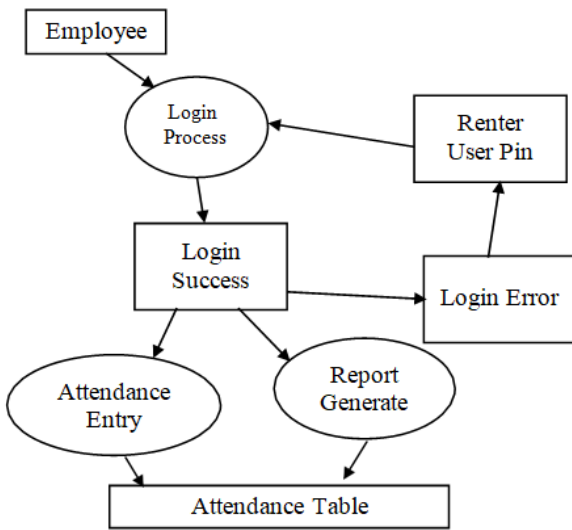


Figure 2: Data Flow Diagram

### IV. USER LIST

#### A. User: Admin

Admin is handled this application formaintaining the details about Employee.

1. Add, Update , Delete Employee
2. Add shift details for employee
3. Assign shift to employee
4. Admin will generate attendance and salary report

#### B. User: Employee

Employee use this application in our android mobile then employee login with its username and pin.

1. Mark Attendance with Selfie and store current time for In or Out Time with current location\
2. Check Attendance report with Markers on Google Map
3. Check Salary current month depending on its Attendancereport

### V. EXISTING SYSTEM

In the present system all work doing on papers. The whole session attendance is mark on paper and at end of month reports are generated and it takes more time to calculate attendance.

By the way we are not interested to generate report at the end of month, what action to take on employees with poorattendance.

### VI. PROPOSED DYDTEM

In Geo-ATS helps to reduce the paper work and it takes less time. All works data is stored online server for easy to access.

This application is very easy to use for Admin and Employee. Admin maintain all details of Employee.

### VII. RESULT

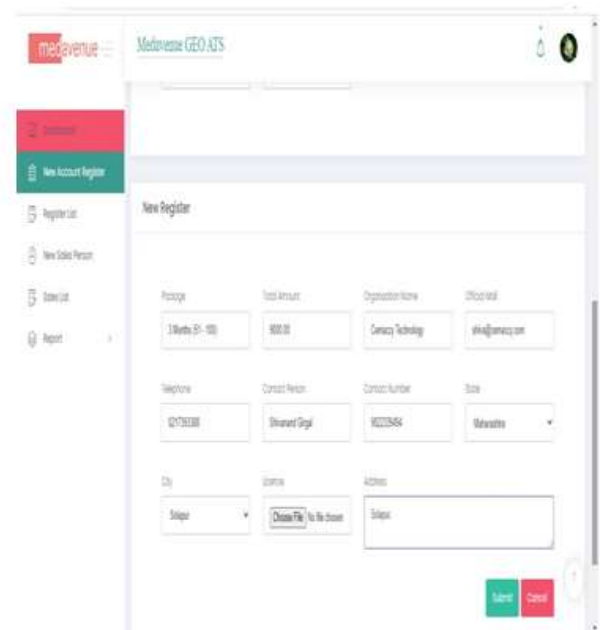


Figure 1: Admin Registration

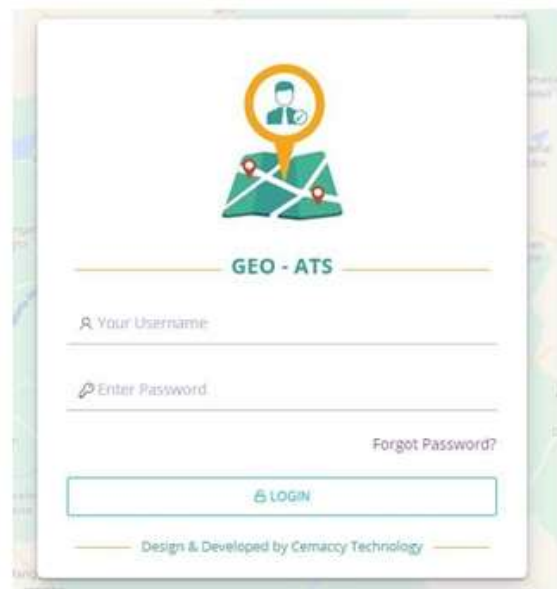
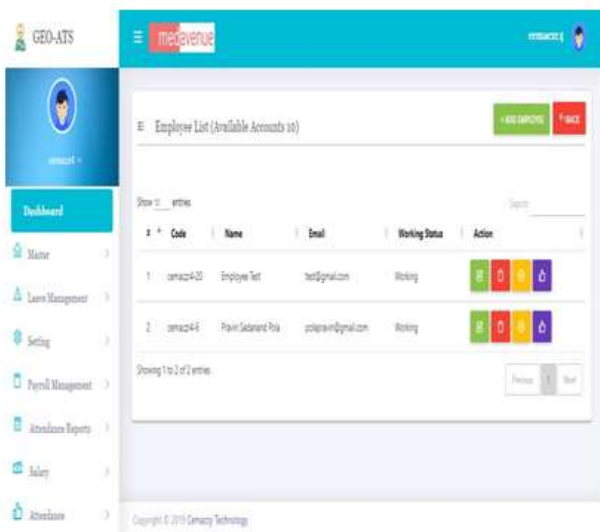


Figure 2: Admin Login



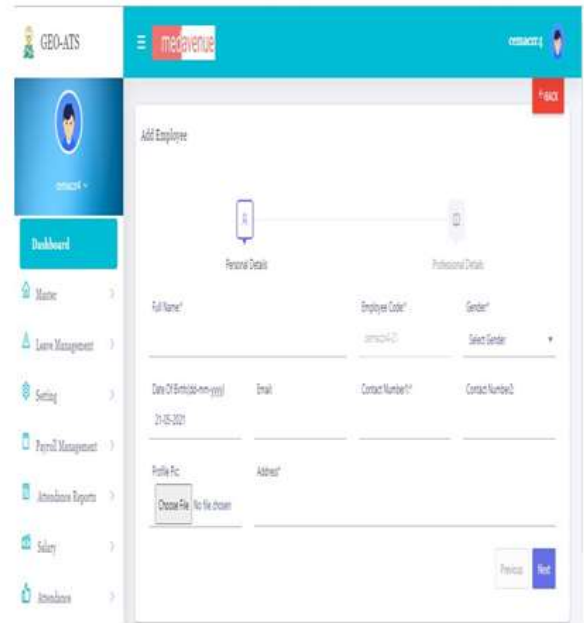
**Figure 3: Admin Dashboard**

After login success shows above figure. Some information will display like Total Employee, Current month holidays and birthday details of employee.



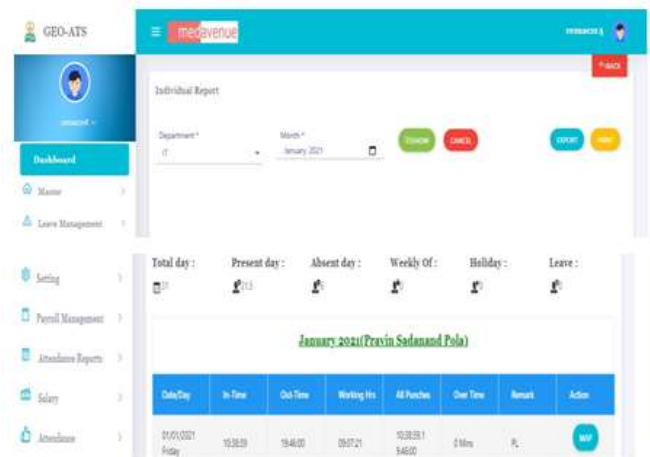
**Figure 4: Employee List**

When click on Employee option in sidebar then open above page. In this figure show details of Employee if data is existed otherwise blank.



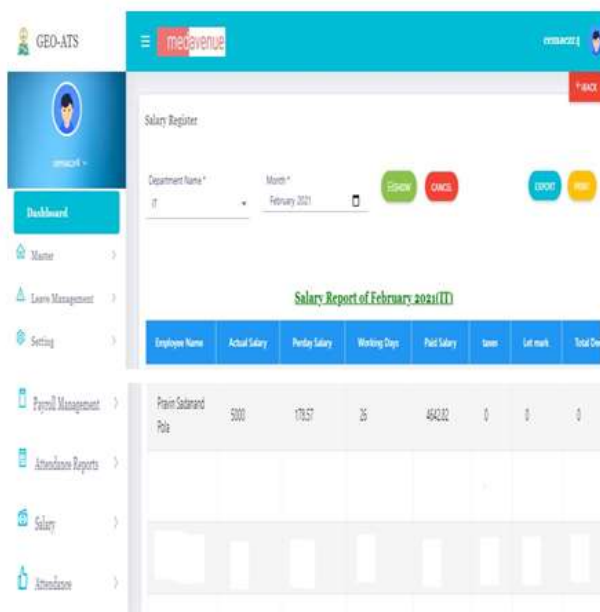
**Figure 5: Add Employee**

In above figure shows page Add the employee details for he/she working in our organization or hospital.



**Figure 6: Attendance Report**

It shows attendance details of employee with Map. When click on Map button then show the Employee location markers on Google Map.



**Figure 7:** Salary Report

In above fig shows the calculating employee working hours and shows the Total Salary of that month.

## VIII. CONCLUSION

This website based on attendance management system is developed using PHP, HTML and JavaScript.

This system overcome many limitations in attendance, it saves time and reduces errors while occur during attendance calculation.

1.1 Automated calculation in Attendance and Salary Report.

1.2 It excludes paperwork and some mistakes while

using paper for taking attendance.

1.3 It is very user friendly application.

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