

# Web Based Attendance Management System Using Geo-Location

Vishanthanshree. R<sup>1</sup>, Venkata Naga Sai Sucharith. M<sup>1</sup>, Dr A.VijiAmutha Mary<sup>2</sup>, Dr. Mercy Paul Selvan<sup>2</sup> and Dr. S. Jancy<sup>2</sup>

<sup>1</sup>Student, Department of Computer Science Engineering Sathyabama Institute of Science and Technology, Chennai

<sup>2</sup>Associate Professor, Department of Computer Science Engineering Sathyabama Institute of Science and Technology, Chennai

E-mail : [msaisucharith@gmail.com](mailto:msaisucharith@gmail.com) [vijiamuthamary.cse@sathyabama.ac.in](mailto:vijiamuthamary.cse@sathyabama.ac.in)

**Abstract:** In Attendance Management System by using Geo-Location, the aim is to take attendance by using Geo-Location to track the information about the user or particular user whether the user is present or not in that particular location which was given by admin and this gives the total information about the user. The recent trend in the attendance management system by using finger print and the face detection but in some this will not work and it is time taking process, by using Geo-Location we can mark the attendance it makes easier for authentication. The paper focuses on using of the Geo-Location for the attendance system.

**Keywords:** Geo-Location, geofencing, attendance service,

## I. INTRODUCTION

Today, attendance management system are very important for every organization and many agency for tracking the location of their user or their admin this can be also used in the workplace for tracking the information about the user whether he is in the workplace or not. In generally this has two types [1] physical and [2] Automated. Physical system include using sheets or workbooks Attendance filled out by employees and taken care of by managers for accuracy. This method There is a risk of sheet loss or damage. It also extracts relevant data and Calculating working hours manually is very time consuming. Verification requires additional employees the attendance and timing of other employees; Also, the organization [1] the another system that is Automated by using location in this it check that user is present in that particular location or not based on that it send the response to the admin or that organization this can use for any time by assign to user not like manually and this will reduce the time [2] instead of taking by manually in the paper by using the above techniques, admin or that organization can check the records of the user and based on that they can also calculate the working hours this record is automatically send to the

computer and store in the data base

The data about the user and their working hours or attendance also can track at all time, with the automated we can save the time and cost of the product compare other technology which are out there by using face detection and finger print those are high in cost compare to using this technology and every one can easily can use this one by just enable the location in their device.

A smartphone for this purpose for time and attendance record. suggested a place an intelligent time and attendance management system based on the concept of Geo-Location and implemented as a web application communicating with a remote server Database location. Internet connection (Wi-Fi/3G) is required for connection A database on a remote server The intelligent system we propose is Peripherals other than smartphones, reducing computation time and cost Place additional devices. with smartphone Running applications are automatically tracked.

## II. LITERATURE SURVEY

To come up with all the technologies in Participation Framework Based on Area Utilizing Geo-Location Innovation, a survey of the related was conducted by gathering information from the previous papers and projects. There are number of related works that existing on web based that using by this technology and for attendance management system in this which we using Geo-Location. The application is mainly based on assigning the location to the particular user and that user want to login their account and enable the location then the function will mark the user as present if he is in the correct location Participation Administration has moreover been carried out utilizing participation computer program that employments passwords for confirmation. The

admin in actualized a framework that confirms the client based on location, previous applications for attendance management they used technology based on bio-metric proof for marking this will take time in there is more users and this can manage only small-scale organizations this will cost more for buying devices and another application which is based on the face detection in this by scanning face id it will identify the user and then update the user status but it cannot take the whole time that to check that user status and it only fix in one place that to identify the user this cannot give correct information about the user if the admin want to track the user at the particular this technology can't use because it will take only one or two times

but in the Geo-Location technology it can manage and detect the user at the particular time gap and admin can assign to any location that he wants to assign, comparing to other technology by using Geo-Location will cost less if we see in the other fields, it will cost more to buy the equipment and also management will cost more

### III. METHODOLOGY

A methodology used in the attendance management was implemented on by Geo-Location marking and geo-fencing create the virtual boundary that will triggers the when user enter into that boundaries this particular location and boundaries was assign by the admin, it can be more flexible for the admin for assign the location based on the work he can assign the particular location, in this approach allow us to develop the application step by step and that provide services also, the main advantage of this model is modification of request or extensions are between each phase changes are possible Very low cost to implement due to frequent new increments what is produced. In this phase all activities are planned according to the given time period complete the system. In the first phase we will assign the particular location to that user and the admin want to assign the time duration in the entire time duration the user want present in that location ones user enter the out of the boundary it will two or three excuses if user is present the whole time in thar boundary it will mark as present otherwise it will mark as absent, in second phase the user want to login their account and he need to enable the location then user can mark the attendance it will mark only if he present in the particular boundary which was given by the

admin and he need to present whole time in that particular location, Ones it is successful then the data of the user will update in the admin portal and mark as present the admin can manage the user location and time duration if the user has any problem for making the location by manually also admin can mark the status of the user this method also use when user in can't mark the status it can Detects if a person is within range of the location.

### IV. FLOW OF OPERATION

Framework and design of location-based attendance system

Use Geo-Location such as frameworks, in detail. Data modelling is required to interactions between systems Designers, Programmers, End Users. Early modelling helps Identify needs, problems and possible solutions during the project. all designs the focus on data modelling is that this data model is system flow. But CDs are even more important. An entity that interacts with the system. In ERDs, entities and systems. This framework is designed to help users understand how This means that instructors and users interact with the system in a targeted way Where the parameters have to be sent to the server so that the server can do this his job. Instructors must enter subject information. At the beginning of the lesson and at the end of the lesson near the end of the lesson

- Login to the system – User want to Login into the application if the user is new to this web application, he needs to register like shown in the Fig-1

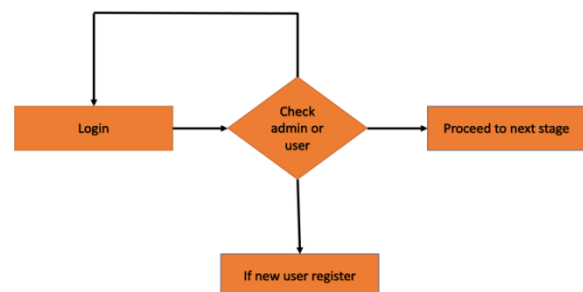


Fig 1: Login or sign-up

- Admin Login – admin want to assign the location and time duration to the user and select the respective check-in time. Once a location is provided, the user is considered a participant in

the course admin can also view user records and manage the user attendance manually if user can't able to mark location with their device as we shown in the Fig-2

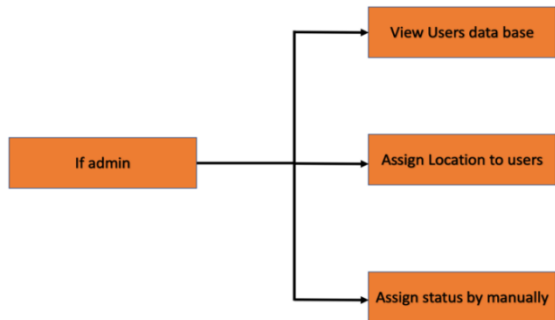


Fig 2: Admin Login

- User Login – user want login with their user id if user new to this application he needs no register as we show in Fig-1 one’s user login in to their id he need enable the location and mark the attendance and the user's or user within range of their mobile phone, or Teacher location radius, and all other criteria are met as a user ID. There are two types of modules are involved in this application one admin and users. Context The illustration shows two users and What you can do with your own power. This module allows faculty, admin and users to login and use the system. User must first enter email or phone-number and password with the system. This ensures that only authorized users id and password can access to the system. admin only can assign the location and time duration for the users based on that user want to present in that particular time and in that same then only attendance will mark as present.

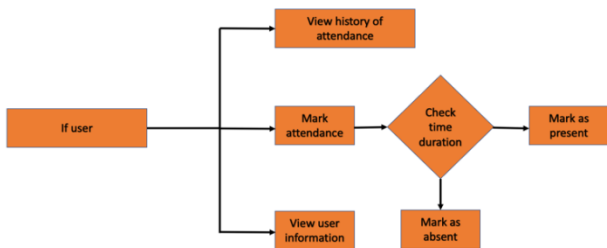


Fig 3: User or User Login

As we shown in Fig-3 for marking the present user want to present the whole-time duration in that particular location if user enter out of the boundaries only two time it will excuse with in the mention time

again he needs to present in the same location, then only it will mark as present otherwise it will mark as absent for the user and user can also check the previous records about the attendance and percentage of his total attendance

## V.RESULTS

The below snapshots of some interface from the designed application

Fig-4 shows the admin Login page from here admin can login and use the total control of the application. Fig 6 shows the user Login page Users can use their email and password and he/her can login and mark the attendance from this application and user can see the all past records and their information. Fig 5 shows the dashboard of the admin and to manage all the users location and for taking attendance. Fig 7 shows the user dashboard all services of the user they can mark the attendance and can see the all the data about the data

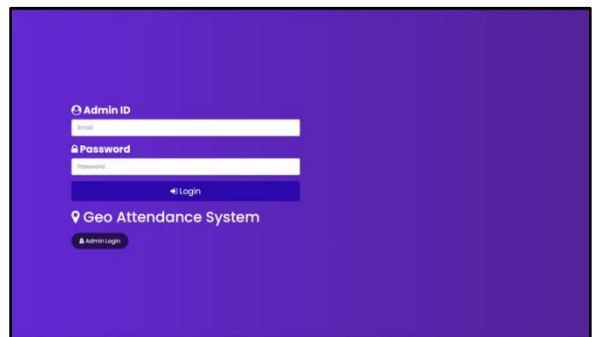


Fig 4:Admin Login page

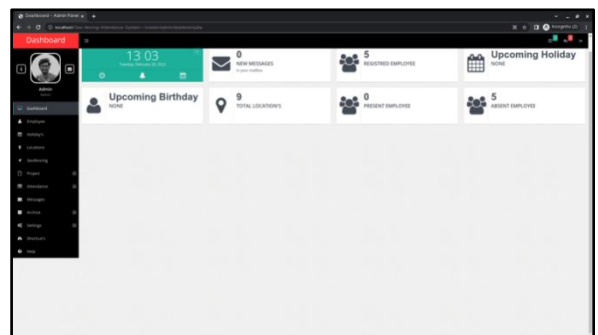


Fig 5:Admin Dashboard

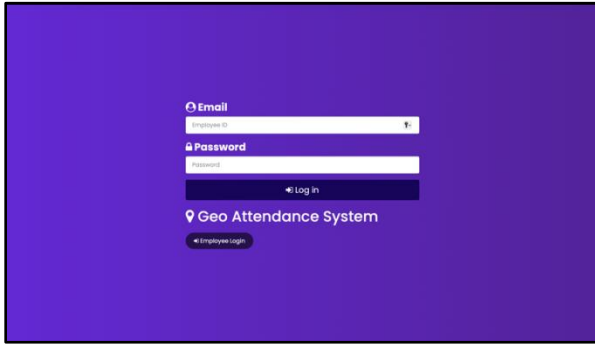


Fig 6:User Login page

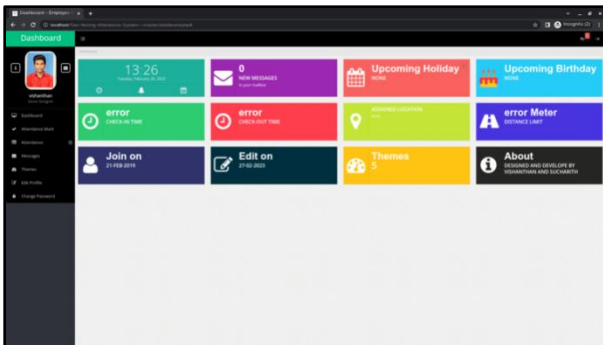


Fig 7:User Dashboard

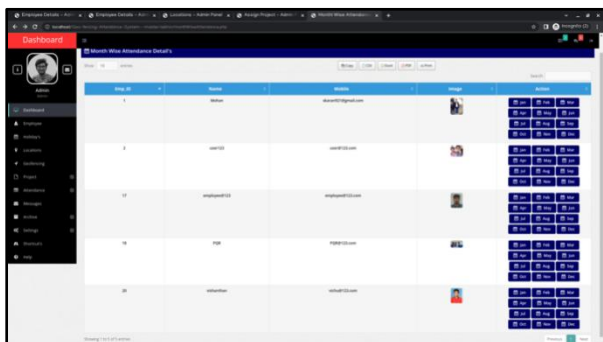


Fig 8:Attendance Records

## VI. CONCLUSION

The system designed is to provide the comfort that users value. Users and admin who record attendance in an adequate manner. Uses Global Positioning System technology to confirm presence is present Accurate and reduces fraud issues. In general, project constraints and limitations are system impediments and limitations. Before the goal of developing a location-based attendance system using GPS technology is nearly achieved, there are some limitations. You can't manage the time to build your application. A lot of our time was spent elsewhere so

we were able to make up for it Tasks at really late hours. More features may be added to this system in the future. First, we need to incorporate pagination functionality to make it more visually appealing and easier to read. User to this system. Then the process of entering user data into the system an efficient and fast verification process must be in place. Then about This system allows him to compare only two conditions. it's recommended Future work, conditions or verifications can be added to further improve measurement of the system. Moreover, this web application can be expanded by adding Detailed information about user details and user attendance details by using the Geo-Location. The Global Positioning System turned out to be suitable for participation A system that can record attendance according to the set conditions. ever since Subject activation locations are flexible, so workplace can be conducted anywhere Make your learning environment more interesting.

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