



# MOBILE ATTENDANCE MANAGEMENT AND EMPLOYEE REGISTRATION

S.P. Avinaash Ram and J. Albert Mayan

Department of Computer Science and Engineering, Sathyabama University, Chennai, India

E-Mail: [avinashram16@gmail.com](mailto:avinashram16@gmail.com)

## ABSTRACT

Staff 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 staffs location through mobile phone. Manual registration in biometric systems and entering in the attendance catalogues in different physical locations is the current system used in all the colleges. The staff will get updates regarding their attendance regularly from the admin as they login and log out so that they can keep a track on their attendance by using this application.

**Keyword:** android, mobility, automation, attendance, tracking.

## 1. INTRODUCTION

Most of the colleges follow physical attendance entry all these years. The course is not only period overwhelming but also occasionally incompetent resulting in the untrue pattern of attendance. Nowadays, we require no maintenances pen, paper based participation. Succeeding this idea, we have proposed a participation checking framework built in light of the idea of web administrations which is executed as an Android versatile application that interconnects with the database dwelling on a remote server. The portable application will associate with the database utilizing either General Bundle Radio Administration (GPRS) or Wi-Fi innovation.

Our development is an efficient and user friendly as easy to use Android portable application for a Participation Observing. This application will be introduced on the client's (for this situation Administration) advanced cell. It proposes to convey a client interface to the representative who obliges slight subtle elements to include for login of participation of a specific worker. Aside from that, the application would help solid client verification and speedy transmission of information by means of the web administration. Instructors will sign into the advanced cell application and get connection to the server. After login, the clock starts ticking when the user comes out of the campus the Wi-Fi will be disconnected and the logout time will be taken into count.

In this application staff can also register with their name, Department, D.O.B and with their ID number. In the event that the staff needs to see their participation history then they can see it by their application, in the wake of entering the approved client name and watchword. Here the work is sorted out as area 2 related works, segment 3 hindrances of related works, area 4 proposed work, area 5 modules usage, area 6 execution, area 7 points of interest, segment 8 algorithm, segment 9 algorithm explanation, area 10 future scope, area 11 conclusion.

## 2. RELATED WORKS

In the current work all process is carried out on paper. The whole session participation is put away in record and at the end of the session the reports are produced. Representatives are not concerned in producing report amidst the session or according to the prerequisite on the grounds that it takes additional time in computation. At the end of session the workers who don't have Easygoing Leave and Restorative Leave will get a notice.

## 3. HINDRANCES OF RELATED WORKS

Not easy to understand/ Trouble in report era  
Manual control/Heaps of paperwork/Time intensive.

## 4. PROPOSED WORK

### A. Architecture diagram

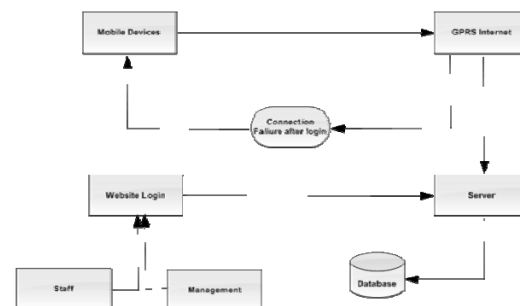


Figure-1. Architecture diagram.

### B. Proposed architecture overview

Easy to use: The proposed framework is easy to use on the grounds that the recuperation and capacity of information will be quick and records will be kept professionally sheltered. Besides the GUI is given in the proposed framework, which conveys client to manage the framework effortlessly.

Reports are effortlessly produced: Reports can be just produced in the proposed framework, so administrator can deliver the report according to the



prerequisite (month to month) or in the mid of the session. Administration can give the notice to the worker so clients get to be consistent.

**PC administrator control:** System administrator regulations will be there so no possibility of falseness or deceiving.

**Very less paper work:** The proposed framework obliges low paper work. All the information is nourished into the framework promptly and reports can be produced through PCs. Moreover exertion gets to be simple on the grounds that there is no need to keep the information as papers.

## 5. MODULES USAGE

**Staff attendance and tracking** is an application designed for the staffs to login their attendance and track other staffs in the college premises using mobile phone.

**Emulator:** Emulator is used by using the software eclipse which is used to run android emulator in system so that the application which is being created can be tested then and there.

**Advantages of Emulator:** All applications can be tested using the emulator So that the application will work in any version of android device. Emulators mostly available as a free software. By using the emulator we can perform UI and performance testing. The version of emulator involved in this project is Eclipse Mars.

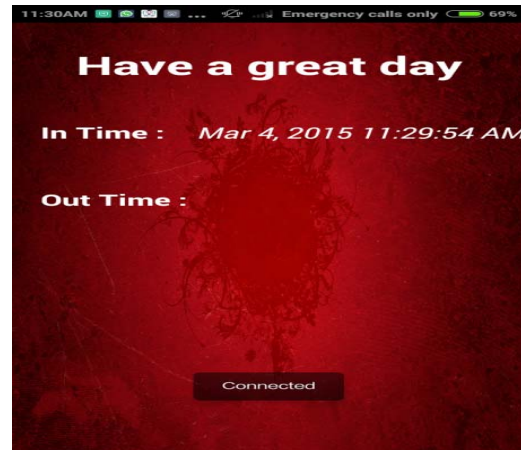
### Types of modules

#### A. Admin module

The principle motivation behind the Administrator module is to maintain secured data's. This module is mend only to Management, where mobile phones are used for attendance. Each staff registers their user name and password which gets stored in the admin database. If the user name and password does not match they will not be able to log in for attendance.

#### B. Attendance module

The motivation behind the module is to enter the participation by utilizing cell telephone. By using the application the staffs can login their attendance through mobile phone.



**Figure-2.** Attendance registration successful.

The staffs have successfully logged in as in Figure-2 and their attendance have been registered in the server database.

#### C. Database module

The capacity of this module is to produce the rundown of staffs that who all are logged in then the admin can download the list from the database.

#### D. Staff module

**Add details:** Registration of log in with username, email id, password and mobile number

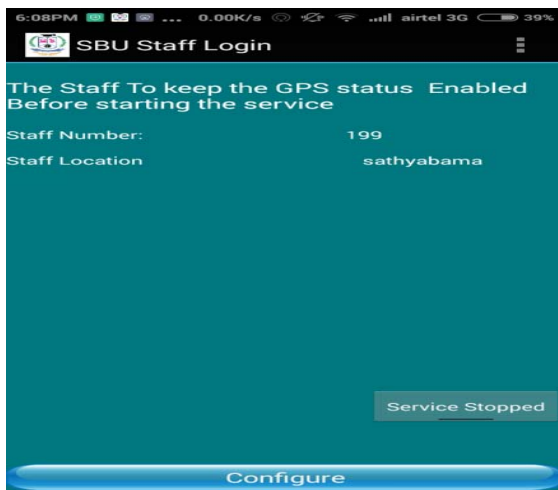
**Notification bar:** A notification bar will be keep on intimating the status of the staff login until they leave the premises and logs out.

#### E. Login module

The staff should enter their valid user name and password for logging in other wise there login will not be validated and will not be able to pin their attendance.

#### F. Tracking module

The tracking of staffs works when a staff want to track the exact location of the other staff the GPS service should be enabled in both the mobile devices and the staff who tracks the other staff should be in motion so that the staff can reach the desired location. The IMEI number of the mobile of the respective staff will be stored in the server of admin so that the admin can track the staff the map view will be shown with navigation in Google maps so that the staff will reach to the desired location accurately.



**Figure-3.** Tracker enabling.

The staffs have successfully logged in by the admin and the location is also retrieved for tracking now the GPS service has to be enabled by the staff to start the tracking service.

## 6. EXECUTION

Execution is the stage of the project is that the working system is turned into theoretical process. Hence it is considered to be effective and useful to the user. The existing system is investigated with careful planning which involves the implementation stage. This research work is not platform independent i.e: this application runs only in android mobile phones.

## 7. POINTS OF INTEREST

After installation of the application in android smart phone attendance Calculation can be done within fraction of seconds by the admin. Improves the accuracy of calculation. Paperwork will be very less. Manual attendance calculation will not be required.

## 8. ALGORITHM USED

### Step-1: Pass the login credential

```
Void login online () {
    Try {
        Http client = new DefaultHttpClient ();
        Http post = new Http Post
        ("http://172.17.1.113/manimca/staff/login/login.php"); //
        make// sure
        NameValuePairs = new Array List<Name Value Pair>(2);
        // always use the same variable name for posting i.e the
        android
        // side variable name and PHP side variable name should
        be similar,
        NameValuePairs. Add (new BasicNameValuePair
        ("username", editUser.getText ().to String ().trim ()); //
        $Edit text _value
```

### Step-2: Pass value to Http server

```
$_POST [' Edit text _value'];
```

```
NameValuePairs. Add (new basic Name Value Pair
("password", edit Pass .get Text ().to String ().trim());
httpost.setEntity(new
UrlEncodedFormEntity(nameValuePairs));
```

### Step-3: Execute HTTP post request

```
Response = http client .execute (http post);
// edited by James from coder heaven. From here....
Response Handler<String> response Handler = new Basic
Response Handler ();
Final String response = http client .execute (http post,
response Handler);
System .out println ("Response: " + response);
RunOnUiThread (new Runnable () { });
```

### Step-4: Check the username in server

```
if (response. equals Ignore Case("User Found")) {
    RunOnUiThread (new Runnable () {
        Public void run () {
            Toast. Make Text (Login Activity. this, "Login Success",
            Toast .LENGTH_SHORT).show ();});}
    Else {Show Alert ();}
    Catch (Exception e){
        Dialog. Dismiss ();
        System .out .println("Exception : " + e. get Message());}
```

### Step-5 Login in the server

```
void login(){
    db = open Or Create Database("staff .db",
    MODE_PRIVATE, null);
    String see ="create table if not exists register(id integer
    primary key auto increment ,name varchar(120),email
    varchar(3000),pass varchar(300),cpass varchar(20),mobile
    varchar(20),radio varchar(200))";
    db.execSQL (see);
    ss_username=editUser.getText ().to String ();
    ss_password=edit Pass. Get Text ().to String ();
    if (ss _ username .equals("")||ss _ username==null || ss_
    password .equals("")||ss _ password==null)
    {Toast. Make Text (get Application Context(), "Fill all
    above details to proceed", Toast
    .LENGTH_LONG).show();}
```

### Step-6: Check the value in My SQL DB

```
Else {
    String s_ select = "select * from register";
    Cursor m Cursor = db. Raw Query (s_ select, null);
    if(m Cursor!=null)
    {While (mCursor.moveToNext()) {
        s_username=m Cursor. Get String (m Cursor. get
        Column Index ("name"));
        s_secure pass=m Cursor. Get String (m Cursor. get
        Column Index ("pass"));
        s_password = m Cursor. Get String (m Cursor. get
        Column Index ("pass"))
```

### Step-7: If user exist attendance login successful

```
if(ss_username. equals(s_username) && ss_password
.equals(s_securepass))
{Username =editUser.getText().to String().trim();
```



```
Log.e ("", "check1"+ user name +ss_password);
Toast.Make Text (get Application Context (), "Login
success", Toast.LENGTH_LONG).show();
Intent intent=new Intent (get Application Context (), Menu
Activity .class);
Intent .put Extra ("username", username);
Intent. Put Extra ("password", ss_password);
Start Activity (intent);finish();
```

## 9. ALGORITHM EXPLANATION

This algorithm explains the connectivity between Http server client and app server. This connection takes place in step by step process

**Step-1.** User has to enter his or her username and password

**Step-2.** Once the details are entered user has to hit the login button

**Step-3.** The user details will be checked from the server side

**Step-4.** Once the detail calls true, the intent will pass from one activity to another

## 10. FUTURE SCOPE

According to college level the staffs will get benefits by using this application. As the staff login by using the application in college, they have entered their attendance. The admin will submit the attendance of the staffs those who are logged in. It informs whether the staffs are present in the college premises or not Staff doesn't have to use biometric or manually register in attendance log book.

## 11. CONCLUSIONS

An Android based portable application for Participation Checking and tracking of staffs is created. The application offers user friendly activity, less time consumption. It can be also used for tracking other staffs inside the college premises, time will be saved for the staffs from entering the attendance manually. .

## REFERENCES

- [1] K. Akhila, a Novel Approach of Mobile Based Student Attendance Tracking System Using Android Application, International Journal of Engineering Research & Technology (IJERT) Vol. 2 Issue 4, April - 2013 ISSN: 2278-0181.
- [2] C. Prathyusha," A Novel Approach of Mobile Based Student Attendance Tracking System using Android Application" Research Scholar, K.L. University, International Journal of Scientific & Engineering Advanced Research , Volume 1 Issue 1 2013.
- [3] Macro Andre Guerra, Claudia Mariline Francisco, RuiNeves Madeira, Portugal "Portable Lab: Implementation of Mobile remote laboratory for Android platform", an IEEE paper.

[4] Shraddha Chauhan, Mangesh P. Girhale, Gunjan Mankar IOSR Journal of Computer Engineering (IOSR-JCE) e-ISSN: 2278-0661, pISSN: 2278-8727Volume 10, Issue 3 (March - April 2013), pp. 48-50.

[5] Reto Meier, "Professional Android 2 Application Development", ISBN: 978-0-470 -56552-0, Paperback, 576 pages, March 2010.

[6] Lars Vogel," Android SQLite database and content provider – tutorial" Version 4.9, Revision 0.1, 22.12.2010.