

# **ATTENDANCE MANAGEMENT SYSTEM**

**MID-TERM REPORT  
OF MINI PROJECT-II**

**BACHELOR OF TECHNOLOGY**

**COMPUTER ENGINEERING AND APPLICATIONS**

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# **ABSTRACT:**

Marking attendance in the class meeting session and recording the marks of the students are the prime tasks of the subject handlers, since marking the attendance can regulate the students to attend the classes. Moreover, it verifies number of students present in the conducted classes.

The purpose of recording the marks is to analyse the performance of the students in terms of curricular activities. Earlier, the tasks of marking attendance and recording the marks are handled manually by pen and paper method.

This method consumes more time and adds more workload to the subject handlers and sometimes the data may prone to error. To avoid these problems, this paper presents a mobile application for student attendance and mark management system. This application is mainly designed for the faculties and other staff members of the organization who maintain attendance and marks regularly. Using this system, the subject handlers, staffs or the authorities can verify the number of students present or absent in the class meeting sessions.

This application allows the users to mark attendance through mobile devices and to keep in touch with students. Furthermore, this application allows the teachers to mark and edit the attendance and also to add the marks in the system database for further retrieval. It gives a prior intimation to students as soon as their attendance goes below the specified percentage through an alert message.

# **INTRODUCTION:**

## **1.1 General Introduction to the topic**

In current scenario, marking attendance in the class session and entering the marks of the students are the essential tasks of the subject handlers, since marking the attendance can regulate the students to attend the sessions and verify the number of students in the class. Record of marks is inevitable to analyse the performance of the students in their exams.

The management and maintenance of student information is a key task for any institution. The task of marking attendance and making entry of the exam marks are traditionally carried out manually with a log book. Later, this task is carried out by the desktop applications. The desktop application is a standalone application installed in the particular desktop or laptop and the tasks can be performed only with that particular desktop system.

## **1.2 Hardware &Software requirement**

### **Software Specification :**

- Technology Implemented : Android Development
- Language Used : JAVA
- User Interface Designed : XML
- Code Editor : Android Studio

### **Hardware Requirements :**

- Processor : intel i5
- Operating System : Windows 10
- RAM : 4+GB
- Hard disk : 64 GB
- Testing Device : Android Mobile

# **ANALYSIS:**

## **Study of the Problem**

This project is developed by using Android Studio, Java and XML. Feasibility study is conducted, requirement analysis is carried out to understand the need for the system and the necessary modules, such as admin module, teacher modules. Admin can only they can generate a user id and password to login in the mobile based application

- **ADMIN**
- **TEACHER**

## **ADMIN ROLE:**

This module is used to login for administrator, it has whole rights to monitor and manage the entire project, through this module any new information can be easily inserted, updated, deleted or view.

## **TEACHER ROLE:**

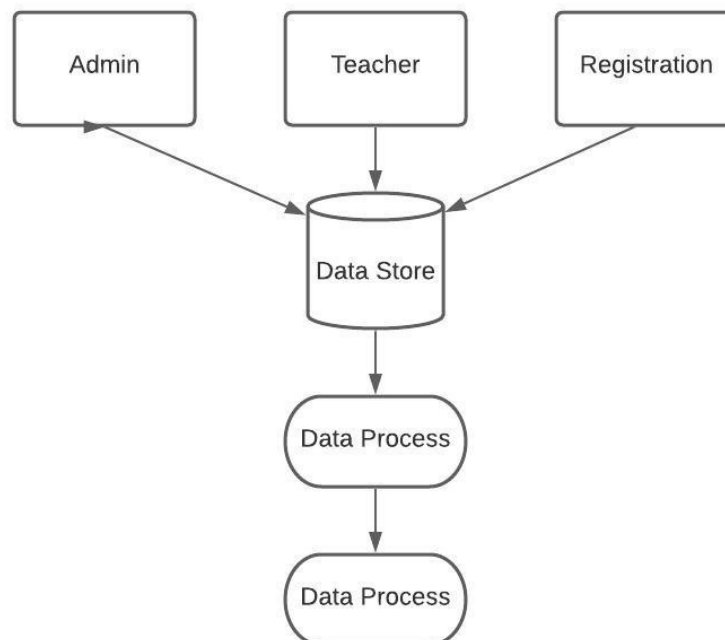
This module is used for the teachers to get register on website in respect to generate a user id and password through which they are able to logged in the smart mobile based attendance application to display the digital register book and submit the final data to the authorized web server of the admin panel.

## OBJECTIVE:

To developed and design the android-based mobile attendance application for the management of attendance records in the educational organization.

To implement the new technology development system to make it digitalized ,authORIZED,secured one in the given web server to kept it records as many years we want to kept it for its future use as per our need.

## DESIGN:



# IMPLEMENTATION:

## CODE FOR LoginActivity.java

```
package com.android.attendance.activity;

import android.app.Activity;
import android.content.Intent;
import android.graphics.Color;
import android.os.Bundle;
import android.text.TextUtils;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Spinner;
import android.widget.TextView;
import android.widget.Toast;

import com.android.attendance.bean.FacultyBean;
import com.android.attendance.context.ApplicationContext;
import com.android.attendance.db.DBAdapter;
import com.example.androidattendancesystem.R;

public class LoginActivity extends Activity {

    Button login;
    EditText username,password;
    Spinner spinnerloginas;
    String userrole;
    private String[] userRoleString = new String[] { "admin", "faculty"};

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.Login);

        login =(Button)findViewById(R.id.buttonLogin);
        username=(EditText)findViewById(R.id.editTextusername);
        password=(EditText)findViewById(R.id.editTextpassword);
        spinnerloginas=(Spinner)findViewById(R.id.spinnerLoginas);

        spinnerloginas.setOnItemClickListener(new OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> arg0, View view,
                int arg2, long arg3) {
                ((TextView) arg0.getChildAt(0)).setTextColor(Color.WHITE);
                userrole =(String) spinnerloginas.getSelectedItem();
            }

            @Override
            public void onNothingSelected(AdapterView<?> arg0) {
            }
        });

        ArrayAdapter<String> adapter_role = new ArrayAdapter<String>(this,
            android.R.layout.simple_spinner_item, userRoleString);
        adapter_role
            .setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
        spinnerloginas.setAdapter(adapter_role);

        login.setOnClickListener(new OnClickListener() {
```



```

@Override
public void onClick(View v) {

    if(userrole.equals("admin"))
    {

        String user_name = username.getText().toString();
        String pass_word = password.getText().toString();

        if (TextUtils.isEmpty(user_name))
        {
            username.setError("Invalid User Name");
        }
        else if(TextUtils.isEmpty(pass_word))
        {
            password.setError("enter password");
        }
        else
        {
            if(user_name.equals("admin") & pass_word.equals("admin123")){
                Intent intent =new Intent(LoginActivity.this,MenuActivity.class);
                startActivity(intent);
                Toast.makeText(getApplicationContext(), "Login successful",
Toast.LENGTH_SHORT).show();
            }else{
                Toast.makeText(getApplicationContext(), "Login failed",
Toast.LENGTH_SHORT).show();
            }
        }
    }

    else
    {
        String user_name = username.getText().toString();
        String pass_word = password.getText().toString();

        if (TextUtils.isEmpty(user_name))
        {
            username.setError("Invalid User Name");
        }
        else if(TextUtils.isEmpty(pass_word))
        {
            password.setError("enter password");
        }
        DBAdapter dbAdapter = new DBAdapter(LoginActivity.this);
        FacultyBean facultyBean = dbAdapter.validateFaculty(user_name, pass_word);

        if(facultyBean!=null)
        {
            Intent intent = new
Intent(LoginActivity.this,AddAttendanceSessionActivity.class);
            startActivity(intent);

            ((ApplicationContext)LoginActivity.this(getApplicationContext()).setFacultyBean(facultyBean);
            Toast.makeText(getApplicationContext(), "Login successful",
Toast.LENGTH_SHORT).show();
        }
        else
        {
            Toast.makeText(getApplicationContext(), "Login failed",
Toast.LENGTH_SHORT).show();
        }
    }

}

});
}

```

```

@Override
public boolean onCreateOptionsMenu(Menu menu) {
    getMenuInflater().inflate(R.menu.main, menu);
    return true;
}
}

```

## CODE FOR AddFacultyActivity.java

```

package com.android.attendance.activity;

import com.android.attendance.bean.FacultyBean;
import com.android.attendance.db.DBAdapter;
import com.example.androidattendancesystem.R;

import android.app.Activity;
import android.content.Intent;
import android.os.Bundle;
import android.text.TextUtils;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Spinner;
import android.widget.Toast;

public class AddFacultyActivity extends Activity {

    Button registerButton;
    EditText textFirstName;
    EditText textLastName;
    EditText textemail;
    EditText textcontact;
    EditText textaddress;
    EditText textusername;
    EditText textpassword;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.addfaculty);

        textFirstName=(EditText)findViewById(R.id.editTextFirstName);
        textLastName=(EditText)findViewById(R.id.editTextLastName);
        textcontact=(EditText)findViewById(R.id.editTextPhone);
        textaddress=(EditText)findViewById(R.id.editTextaddr);
        textusername=(EditText)findViewById(R.id.editTextUserName);
        textpassword=(EditText)findViewById(R.id.editTextPassword);
        registerButton=(Button)findViewById(R.id.RegisterButton);

        registerButton.setOnClickListener(new OnClickListener() {

            @Override
            public void onClick(View v) {

                String first_name = textFirstName.getText().toString();
                String last_name = textLastName.getText().toString();
                String phone_no = textcontact.getText().toString();
                String address = textaddress.getText().toString();
                String userName = textusername.getText().toString();
                String passWord = textpassword.getText().toString();
            }
        });
    }
}

```

```

        if (TextUtils.isEmpty(first_name)) {
            textFirstName.setError("please enter firstname");
        }
        else if (TextUtils.isEmpty(last_name)) {
            textLastName.setError("please enter lastname");
        }
        else if (TextUtils.isEmpty(phone_no)) {
            textcontact.setError("please enter phoneno");
        }

        else if (TextUtils.isEmpty(address)) {
            textaddress.setError("enter address");
        }
        else if (TextUtils.isEmpty(userName)) {
            textcontact.setError("please enter username");
        }
        else if (TextUtils.isEmpty(passWord)) {
            textaddress.setError("enter password");
        }
        else {

            FacultyBean facultyBean = new FacultyBean();
            facultyBean.setFaculty_firstname(first_name);
            facultyBean.setFaculty_lastname(last_name);
            facultyBean.setFaculty_mobilenumber(phone_no);
            facultyBean.setFaculty_address(address);
            facultyBean.setFaculty_username(userName);
            facultyBean.setFaculty_password(passWord);

            DBAdapter dbAdapter = new DBAdapter(AddFacultyActivity.this);
            dbAdapter.addFaculty(facultyBean);

            Intent intent =new Intent(AddFacultyActivity.this,MenuActivity.class);
            startActivity(intent);
            Toast.makeText(getApplicationContext(), "Faculty added successfully",
            Toast.LENGTH_SHORT).show();

        }

    }

}

@Override
public boolean onCreateOptionsMenu(Menu menu) {
    getMenuInflater().inflate(R.menu.main, menu);
    return true;
}

}

```

## CODE FOR AddStudentActivity.java

```

package com.android.attendance.activity;

import com.android.attendance.bean.StudentBean;
import com.android.attendance.db.DBAdapter;
import com.example.androidattendancesystem.R;

import android.app.Activity;
import android.content.Intent;
import android.graphics.Color;

```

```

import android.os.Bundle;
import android.text.TextUtils;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Spinner;
import android.widget.TextView;
import android.widget.Toast;

public class AddStudentActivity extends Activity {

    Button registerButton;
    EditText textFirstName;
    EditText textLastName;

    EditText textcontact;
    EditText textaddress;
    Spinner spinnerbranch, spinneryear;
    String userrole, branch, year;
    private String[] branchString = new String[] { "CSE", "ME", "EC", "EE" };
    private String[] yearString = new String[] { "SE", "TE", "BE" };

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.addstudent);

        spinnerbranch = (Spinner) findViewById(R.id.spinnerdept);
        spinneryear = (Spinner) findViewById(R.id.spinneryear);
        textFirstName = (EditText) findViewById(R.id.editTextFirstName);
        textLastName = (EditText) findViewById(R.id.editTextLastName);
        textcontact = (EditText) findViewById(R.id.editTextPhone);
        textaddress = (EditText) findViewById(R.id.editTextaddr);
        registerButton = (Button) findViewById(R.id.RegisterButton);

        spinnerbranch.setOnItemClickListener(new OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> arg0, View view,
                int arg2, long arg3) {
                ((TextView) arg0.getChildAt(0)).setTextColor(Color.WHITE);
                branch = (String) spinnerbranch.getSelectedItem();
            }

            @Override
            public void onNothingSelected(AdapterView<?> arg0) {
            }
        });

        ArrayAdapter<String> adapter_branch = new ArrayAdapter<String>(this,
            android.R.layout.simple_spinner_item, branchString);
        adapter_branch
            .setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
        spinnerbranch.setAdapter(adapter_branch);

        spinneryear.setOnItemClickListener(new OnItemClickListener() {
            @Override
            public void onItemClick(AdapterView<?> arg0, View view,

```

```

        int arg2, long arg3) {
            ((TextView) arg0.getChildAt(0)).setTextColor(Color.WHITE);
            year =(String) spinneryear.getSelectedItem();

        }

        @Override
        public void onNothingSelected(AdapterView<?> arg0) {
        }
    });

    ArrayAdapter<String> adapter_year = new ArrayAdapter<String>(this,
        android.R.layout.simple_spinner_item, yearString);
    adapter_year
        .setDropDownViewResource(android.R.layout.simple_spinner_dropdown_item);
    spinneryear.setAdapter(adapter_year);

    registerButton.setOnClickListener(new OnClickListener() {

        @Override
        public void onClick(View v) {
            String first_name = textFirstName.getText().toString();
            String last_name = textLastName.getText().toString();
            String phone_no = textcontact.getText().toString();
            String address = textaddress.getText().toString();

            if (TextUtils.isEmpty(first_name)) {
                textFirstName.setError("please enter firstname");
            }

            else if (TextUtils.isEmpty(last_name)) {
                textLastName.setError("please enter lastname");
            }
            else if (TextUtils.isEmpty(phone_no)) {
                textcontact.setError("please enter phoneno");
            }

            else if (TextUtils.isEmpty(address)) {
                textaddress.setError("enter address");
            }
            else {

                StudentBean studentBean = new StudentBean();

                studentBean.setStudent_firstname(first_name);
                studentBean.setStudent_lastname(last_name);
                studentBean.setStudent_mobilenumber(phone_no);
                studentBean.setStudent_address(address);
                studentBean.setStudent_department(branch);
                studentBean.setStudent_class(year);

                DBAdapter dbAdapter= new DBAdapter(AddStudentActivity.this);
                dbAdapter.addStudent(studentBean);

                Intent intent =new Intent(AddStudentActivity.this,MenuActivity.class);
                startActivity(intent);
                Toast.makeText(getApplicationContext(), "student added successfully",
                    Toast.LENGTH_SHORT).show();

            }
        }
    });

```

```

    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.main, menu);
        return true;
    }
}

```

## CODE FOR MainActivity.java

```

package com.android.attendance.activity;

import com.example.androidattendancesystem.R;

import android.os.Bundle;
import android.app.Activity;
import android.content.Intent;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;

public class MainActivity extends Activity {

    Button start;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        start =(Button)findViewById(R.id.buttonstart);
        start.setOnClickListener(new OnClickListener() {

            @Override
            public void onClick(View v) {

                Intent intent =new Intent(MainActivity.this, LoginActivity.class);
                startActivity(intent);
            }
        });
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        getMenuInflater().inflate(R.menu.main, menu);
        return true;
    }
}

```

# **PROGRESS:**

## Part 1. Completed

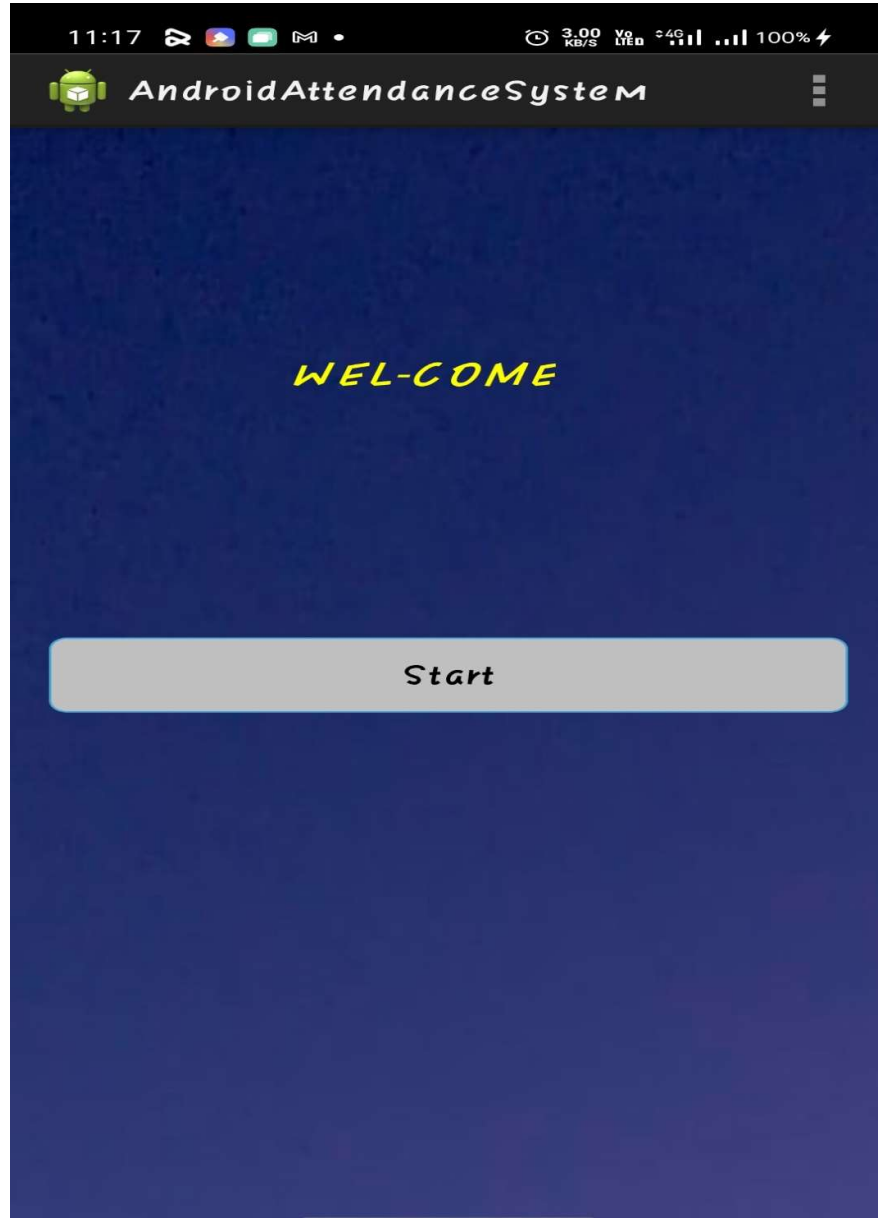
- Home
- Login
- Add Faculty
- Add Student
- Admin

## Part 2. Not complete

- View Faculty Activity
- View Student Activity
- Add Attendance Activity
- Design Layout

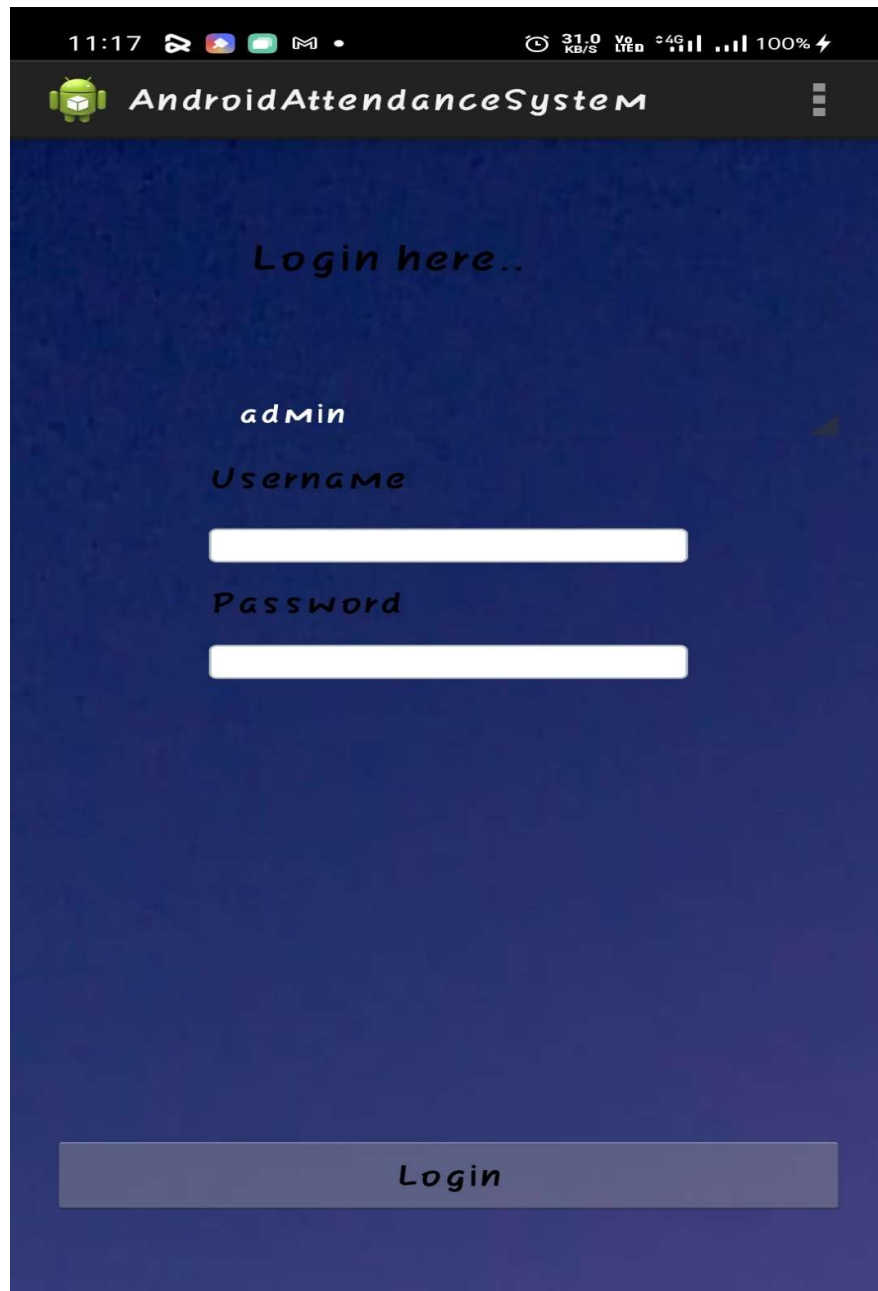
# SCREENSHOTS:

Home:





LOGIN:



The image shows a screenshot of an Android application titled "AndroidAttendanceSystem". The status bar at the top displays the time 11:17, various notification icons, and system status including 31.0 KB/S, VoLTE, 4G, and 100% battery. The app's interface has a dark blue background with a subtle pattern. It features a login form with the text "Login here.." at the top. Below this, the word "admin" is entered into the "Username" field. The "Password" field is empty. A "Login" button is positioned at the bottom of the form.

11:17 31.0 KB/S VoLTE 4G 100%

**AndroidAttendanceSystem**

Login here..

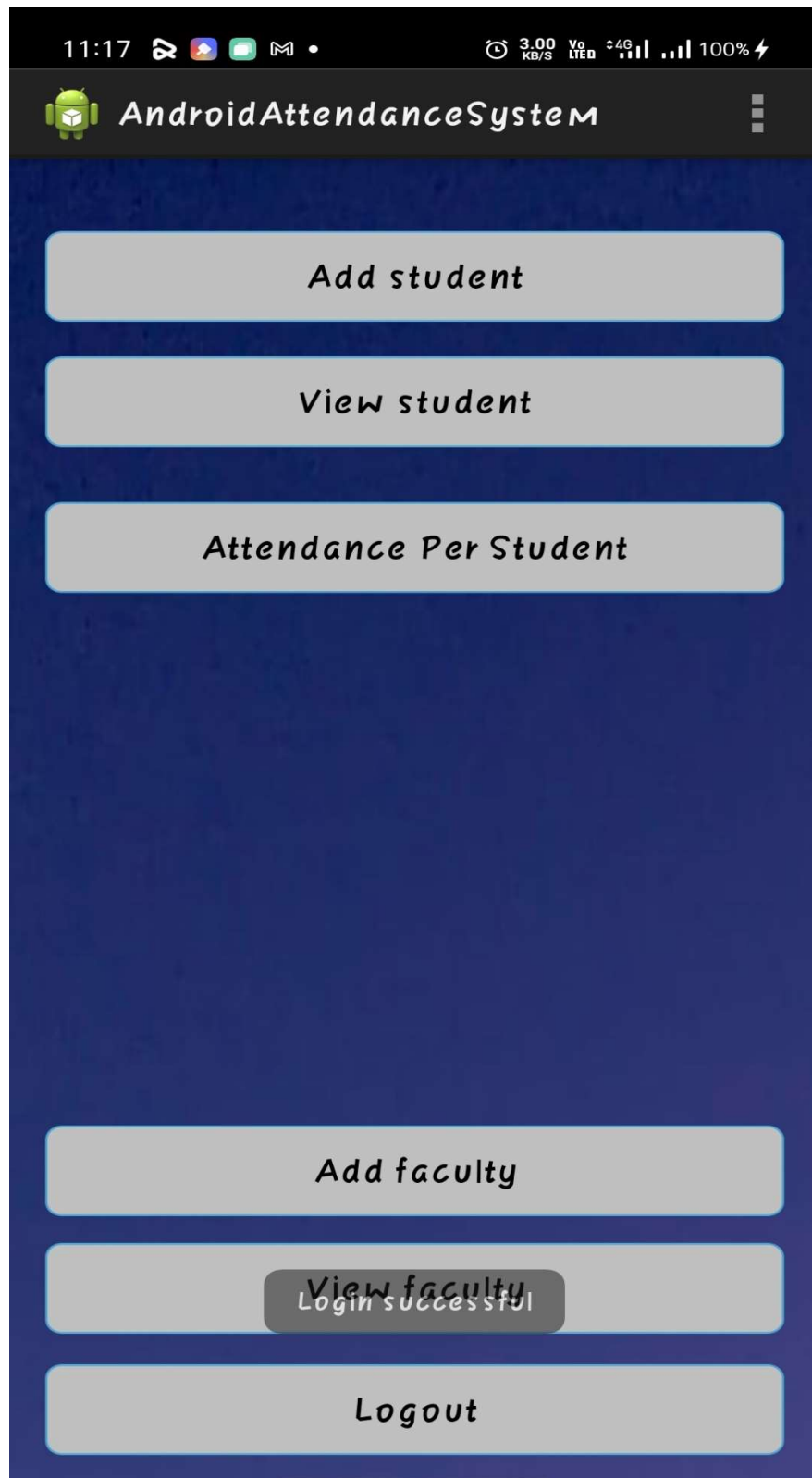
admin

Username

Password

Login

ADMIN:



# **REFERENCES**

## **WEBSITE REFERENCE**

**<https://developer.android.com>**

**[www.tutorialpoint.com](http://www.tutorialpoint.com)**

**[www.w3school.com](http://www.w3school.com)**

**<https://www.udacity.com>**