

# **ATTENDANCE MANAGEMENT SYSTEM**

## **Project Report**

### **MINI PROJECT (ICI 552)**

### **Degree**

#### **BACHELOR OF COMPUTER APPLICATION (CLOUD TECHNOLOGY AND INFORMATION SECURITY)**

**PROJECT GUIDE:**

**MR. ADITYA TRIPATHI SIR**

**Senior Faculty,IT**

**I-Nurture,TMU**

**SUBMITTED BY:**

**HARSH GAUR (TCA2156010)**

**ASHISH SHARMA (TCA2156004)**

**SHILPY TYAGI (TCA2156026)**

**2023-2024**



**TEERTHANKER MAHAVEER UNIVERSITY, MORADABAD**

**FACULTY OF ENGINEERING & COMPUTING SCIENCES**

## **Acknowledgement:**

We would like to express our sincere gratitude and appreciation to all those who contributed to the successful completion of the "**Attendance Management System**" project. First and foremost, we extend our heartfelt thanks to **Mr. Aditya Tripathi Sir** whose guidance and support were instrumental in shaping the direction of our project. Their expertise and valuable insights provided us with a solid foundation and helped us overcome various challenges.

We would also like to thank our teammates for their dedication and collaborative efforts throughout the development process. Each member played a crucial role in bringing unique skills and perspectives to the project, contributing to its overall success.

Special thanks go to **Mr. Sudhanshu Sir** who went above and beyond in providing assistance, feedback, and encouragement. Their input significantly enhanced the quality of our work.

We express our gratitude to the **TMU Moradabad** for providing us with the necessary resources and a conducive environment for the project. The support from the institution played a vital role in the smooth execution of our tasks.

Thank you all for being a part of this journey.

## **Sincerely**

Ashish Sharma

Harsh Gaur

Shilpy Tyagi

**Declaration:**

I, Ashish Sharma along with my team members, Harsh Gaur, Shilpy Tyagi solemnly declare that the project titled "**Attendance Management System**" is the result of our own original work. We assert that this project has not been submitted for any academic or professional purpose elsewhere.

Any sources of information used in the development of this project have been appropriately cited and acknowledged. The code, documentation, and other materials presented in this project are our own creation, and we take full responsibility for their authenticity.

We understand the ethical implications of academic honesty, and we affirm that this project represents our genuine efforts and contributions towards the design and implementation of an Attendance Management System.

Date:4/12/2023

Ashish Sharma (Team Leader)

Team Mates

- Harsh Gaur
- Shilpy Tyagi

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**Project Title:-**

Attendance Management System

**Domain:-**

Android Mobile Application, Student Attendance.

**Problem Statement:-**

Develop an attendance management system to automate the recording, tracking, and reporting of attendance for educational institutions or organizations, improving efficiency, accuracy, and transparency in attendance management processes.

**Project Description:-**

An Attendance Management System (AMS) is a comprehensive software solution designed to streamline and automate the tracking of student attendance. This system aims to replace traditional, time-consuming methods like manual registers with efficient, digital processes.

The AMS records attendance data accurately, stores it securely, and provides real-time access to authorized users. It offers features such as biometric or RFID-based authentication, reporting, and . In educational institutions, it helps teachers monitor student attendance, .

Overall, an Attendance Management System enhances productivity, reduces errors, and fosters transparency in attendance tracking, making it an invaluable tool for various organizations.

**Project Modules:-**

- ENTRY PAGE
- REGISTRATION
- LOGIN
- ADMIN ENTRY MODULE
- TEACHER ENTRY MODULE
- REPORTS

**Software Requirement Specification:-**

- ❖ Operating System:-Windows 10,11
- ❖ Software:-Andriod Studio (version 2021 .1.1 Bumble bee )
- ❖ Back-End Language :XML (Android) , Java
- ❖ Database used:-SQLite, JDK.

**Hardware Requirement Specification:-**

- ❖ RAM:-8GBRAM- (or Above)
- ❖ Solid State Drive: 256GB.
- ❖ Processor:-Intel Core i3,i5

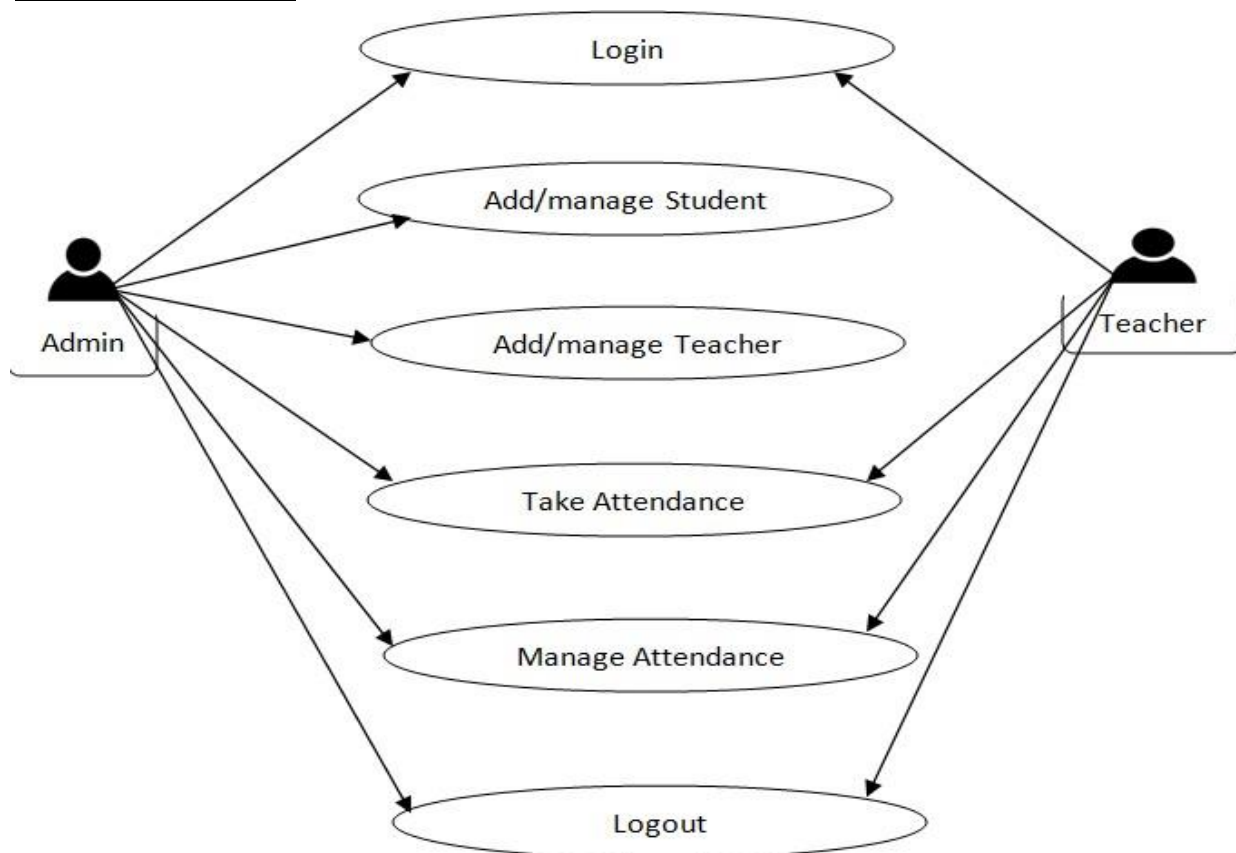
**TOOLS:-**

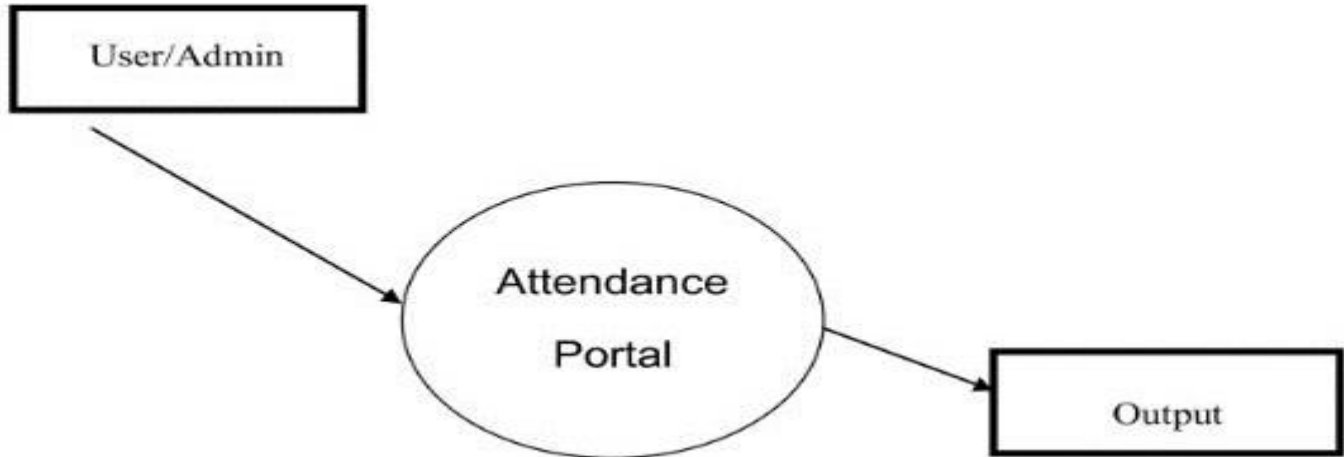
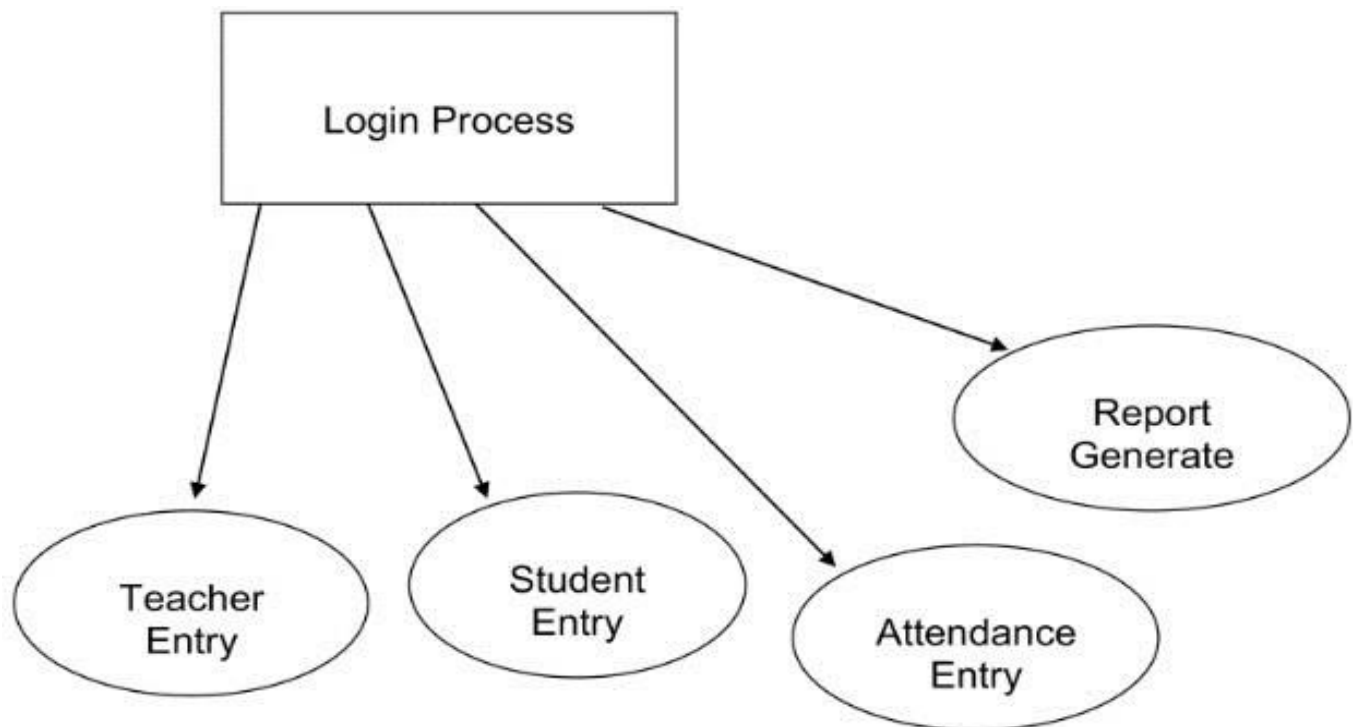
JAVA,11 Os,JDK.1.8 version,ANDROID STUDIO

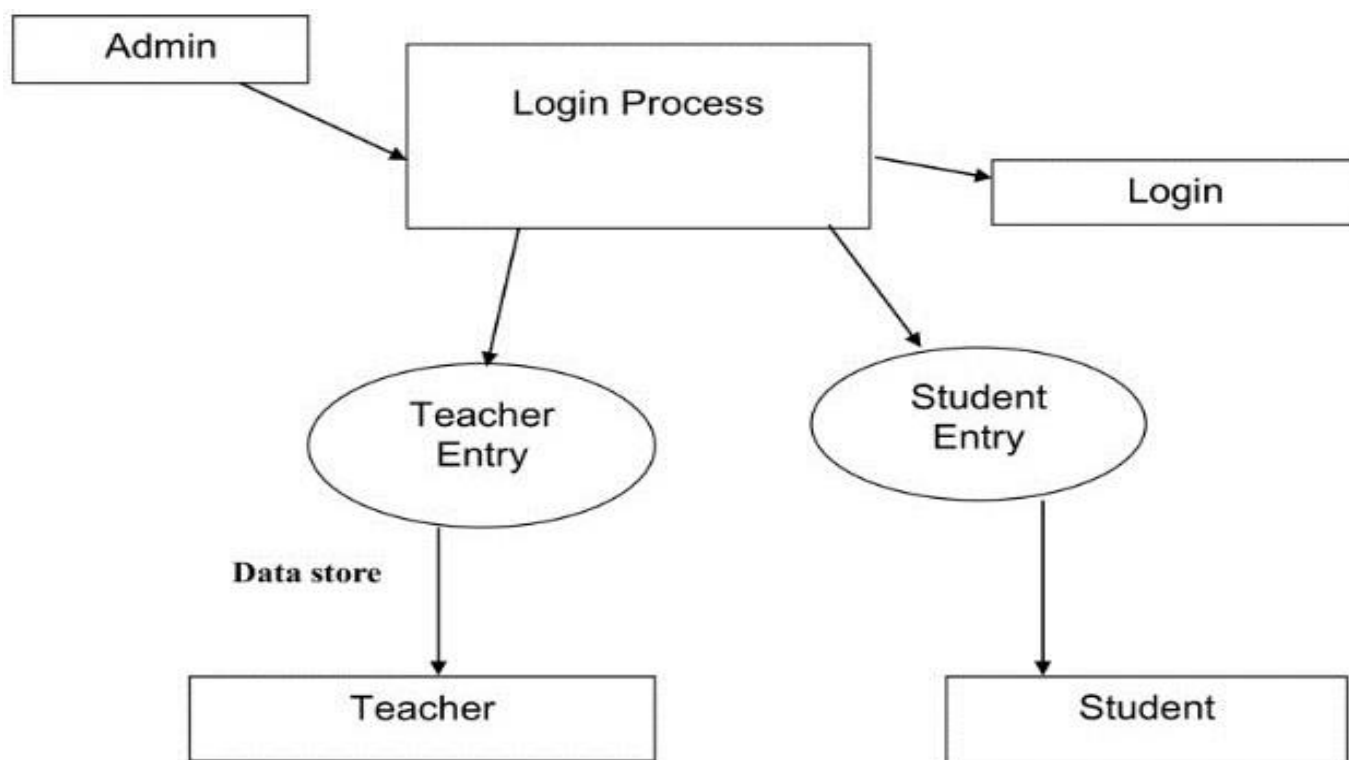
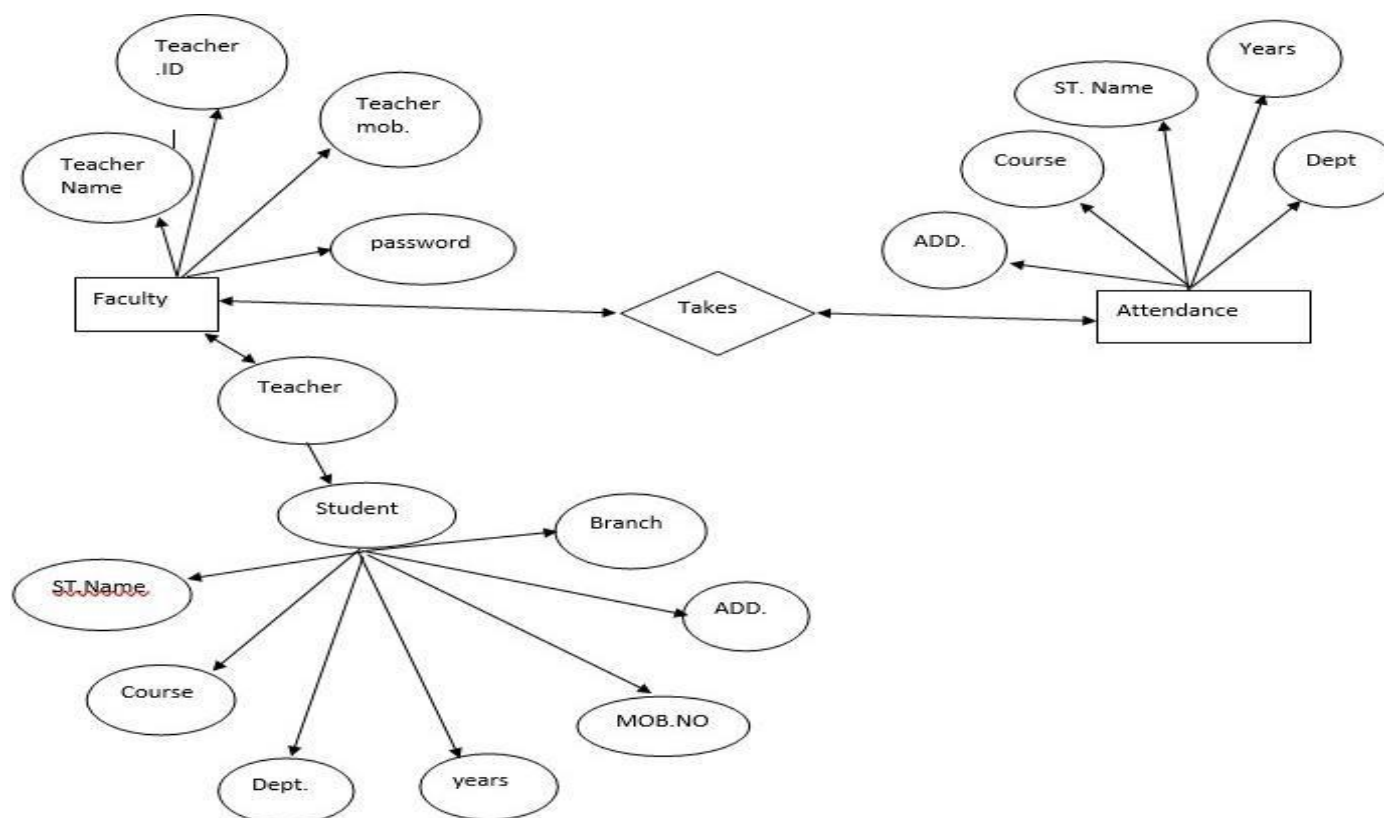
**Advantages of this Project:-**

An attendance management system offers numerous advantages, including:

- Accuracy: Ensures precise tracking of attendance data.
- Efficiency: Streamlines record-keeping and reduces manual effort.
- Transparency: Provides real-time to attendance records for both staff and administrator.
- Accountability: Helps identify patterns of absenteeism and tardiness.
- Data Analysis: Facilitates data-driven decision-making.
- Security: Safeguards attendance data from unauthorized access.

**Use Case Digram:-**

**Data Flow Diagram:-****0-level DFD****1-level DFD**

**2-level DFD:-****E-R Diagram:-**



**Source Code (XML) :-**

```
<?xml version="1.0" encoding="utf-8"?>

<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.androidattendancesystem"
    android:versionCode="1"
    android:versionName="1.0" >

    <application
        android:name="com.android.attendance.context.ApplicationContext"
        android:allowBackup="true"
        android:icon="@drawable/ic_launcher"

        android:label="@string/app_name"
        android:theme="@style/AppTheme" >

        <activity
            android:name="com.android.attendance.activity.MainActivity"
            android:label="@string/app_name" >

            <intent-filter>

            <action android:name="android.intent.action.MAIN" />

            <category android:name="android.intent.category.LAUNCHER" />

            </intent-filter>

        </activity>

        <activity
            android:name="com.android.attendance.activity.LoginActivity"
            android:label="@string/app_name" >

        </activity>

        <activity
            android:name="com.android.attendance.activity.MenuActivity"
            android:label="@string/app_name" >
```

```
<activity
    android:name="com.android.attendance.activity.LoginActivity"
    android:label="@string/app_name" >
</activity>

<activity
    android:name="com.android.attendance.activity.MenuActivity"
    android:label="@string/app_name" >
</activity>

<activity
    android:name="com.android.attendance.activity.AddFacultyActivity"
    android:label="@string/app_name" >
</activity>

<activity
    android:name="com.android.attendance.activity.AddStudentActivity"
    android:label="@string/app_name" >
</activity>

<activity>
```

```
android:name="com.android.attendance.activity.ViewFacultyActivity"
android:label="@string/app_name" >
    </activity>
    <activity
        android:name="com.android.attendance.activity.ViewStudentActivity"
        android:label="@string/app_name" >
    </activity>
    <activity
        android:name="com.android.attendance.activity.TestActivity"
        android:label="@string/app_name" >
    </activity>
    <activity
        android:name="com.android.attendance.activity.ViewStudentByBranchYear"
        android:label="@string/app_name" >
    </activity>
    <activity
        android:name="com.android.attendance.activity.AddAttendanceSessionActivity"
        android:label="@string/app_name" >
    </activity>
    <activity
        android:name="com.android.attendance.activity.AddAttendanceActivity"
        android:label="@string/app_name" >
    </activity>
    <activity
        android:name="com.android.attendance.activity.ViewAttendanceByFacultyActivity"
        android:label="@string/app_name" >
    </activity>
```

```
<activity
    android:name="com.android.attendance.activity.ViewAttendancePerStudentActivity"
    android:label="@string/app_name" >
</activity>
</application>
</manifest>
```

### **Add Attendance Session Activity:-**

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

import java.util.ArrayList;
import java.util.Calendar;
import com.android.attendance.bean.AttendanceBean;
import com.android.attendance.bean.AttendanceSessionBean;
import com.android.attendance.bean.FacultyBean;
import com.android.attendance.bean.StudentBean;
import com.android.attendance.context.ApplicationContext;
import com.android.attendance.db.DBAdapter;
import com.example.androidattendancesystem.R;
import android.app.Activity;
import android.app.DatePickerDialog;
import android.app.Dialog;
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.DatePicker;
import android.widget.EditText;
import android.widget.ImageButton;
import android.widget.Spinner;
import android.widget.TextView;
import android.widget.Toast;

public class AddAttendanceSessionActivity<AddAttendanceActivity> extends Activity {
    private ImageButton date;
    private Calendar cal;
    private int day;
    private int month;
    private int dyear;
    private EditTextdateEditText;
    Button submit;
    Button viewAttendance;
    Button viewTotalAttendance;
    Spinner spinnerbranch,spinneryear,spinnerSubject;
    String branch = "cse";
    String year = "SE";
    String subject = "SC";

    private String[] branchString = new String[] { "cse"};
    private String[] yearString = new String[] { "SE","TE","BE"};
```

```
private String[] subjectSEString = new String[] {"SC","MC"};
private String[] subjectTEString = new String[] {"GT","CN"};
private String[] subjectBESring = new String[] {"DS","NS"};
private String[] subjectFinal = new String[] {"M3","DS","M4","CN","M5","NS"};
AttendanceSessionBeanattendanceSessionBean;
@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.add_attendance);
    //Assume subject will be SE
    //subjectFinal = subjectSEString;

    spinnerbranch=(Spinner)findViewById(R.id.spinner1);
    spinneryear=(Spinner)findViewById(R.id.spinneryear);
    spinnerSubject=(Spinner)findViewById(R.id.spinnerSE);
    ArrayAdapter<String>adapter_branch = new
    ArrayAdapter<String>(this,android.R.layout.simple_spinner_item, branchString);

    adapter_branch.setDropDownViewResource(android.R.layout.simple_spinner_dropdown
n_item);

    spinnerbranch.setAdapter(adapter_branch);
    spinnerbranch.setOnItemClickListener(new OnItemClickListener() {
        @Override
        public void onItemClick(AdapterView<?> arg0, View view,
                                int arg2, long arg3) {
            // TODO Auto-generated method stub
            ((TextView) arg0.getChildAt(0)).setTextColor(Color.WHITE);
            branch =(String) spinnerbranch.getSelectedItem();
        }
    });
}
```

```
        }

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

            // TODO Auto-generated method stub

        }

    });

    /// ..... spinner2

    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);

    spinneryear.setOnItemSelectedListener(new OnItemSelectedListener() {

        @Override
        public void onItemSelected(AdapterView<?> arg0, View view,
            int arg2, long arg3) {

            // TODO Auto-generated method stub

            ((TextView) arg0.getChildAt(0)).setTextColor(Color.WHITE);
            year =(String) spinneryear.getSelectedItem();

            Toast.makeText(getApplicationContext(), "year:"+year,
    Toast.LENGTH_SHORT).show();

            /*if(year.equalsIgnoreCase("se"))
            {

                subjectFinal = subjectSEString;

            }

            else if(year.equalsIgnoreCase("te"))
            {
```

```
        subjectFinal = subjectTEString;
    }
    else if(year.equalsIgnoreCase("be"))
    {
        subjectFinal = subjectBESring;
    }*/
}

@Override
public void onNothingSelected(AdapterView<?> arg0) {
    // TODO Auto-generated method stub
}

});

ArrayAdapter<String>adapter_subject = new ArrayAdapter<String>(this,
android.R.layout.simple_spinner_item, subjectFinal);

adapter_subject.setDropDownViewResource(android.R.layout.simple_spinner_d
ropdown_item);

spinnerSubject.setAdapter(adapter_subject);

spinnerSubject.setOnItemSelectedListener(new OnItemSelectedListener() {
    @Override
    public void onItemSelected(AdapterView<?> arg0, View view,
        int arg2, long arg3) {
        // TODO Auto-generated method stub
        ((TextView) arg0.getChildAt(0)).setTextColor(Color.WHITE);
        subject =(String) spinnerSubject.getSelectedItem();
    }
    @Override
    public void onNothingSelected(AdapterView<?> arg0) {
```



```
        // TODO Auto-generated method stub

    }

});

date = (ImageButton) findViewById(R.id.DateImageButton);
cal = Calendar.getInstance();
day = cal.get(Calendar.DAY_OF_MONTH);
month = cal.get(Calendar.MONTH);
dyear = cal.get(Calendar.YEAR);
dateEditText = (EditText) findViewById(R.id.DateEditText);
date.setOnClickListener(new OnClickListener() {

    @Override

    public void onClick(View arg0) {

        showDialog(0);

    }

});

submit=(Button)findViewById(R.id.buttonsubmit);
submit.setOnClickListener(new OnClickListener() {

    @Override

    public void onClick(View arg0) {

AttendanceSessionBeanattendanceSessionBean =
new AttendanceSessionBean();

FacultyBean
bean=((ApplicationContext)AddAttendanceSessionActivity.this.getApplicationContext()).getFacultyBean();

attendanceSessionBean.setAttendance_session_faculty_id(bean.getFaculty_id());

        attendanceSessionBean.setAttendance_session_department(branch);

        attendanceSessionBean.setAttendance_session_class(year);
```

```
attendanceSessionBean.setAttendance_session_date(dateEditText.getText().toString());
attendanceSessionBean.setAttendance_session_subject(subject);

DBAdapterdbAdapter = new
DBAdapter(AddAttendanceSessionActivity.this);

int sessionId=
dbAdapter.addAttendanceSession(attendanceSessionBean);

ArrayList<StudentBean>studentBeanList=dbAdapter.getAllStudentByBranchYear(branch
, year);

((ApplicationContext)AddAttendanceSessionActivity.this.getApplicationContext()).setStu
dentBeanList(studentBeanList);

Intent intent = new
Intent(AddAttendanceSessionActivity.this,AddAttendanceActivity.class);

intent.putExtra("sessionId", sessionId);

startActivity(intent);

}

});

viewAttendance=(Button)findViewById(R.id.viewAttendancebutton);

viewAttendance.setOnClickListener(new OnClickListener() {

@Override

public void onClick(View arg0) {

AttendanceSessionBeanattendanceSessionBean = new
AttendanceSessionBean();

FacultyBean

bean=((ApplicationContext)AddAttendanceSessionActivity.this.getApplica
tionContext()).getFacultyBean();

attendanceSessionBean.setAttendance_session_faculty_id(bean.getFaculty_id());

attendanceSessionBean.setAttendance_session_department(branch);

attendanceSessionBean.setAttendance_session_class(year);
```

```
attendanceSessionBean.setAttendance_session_date(dateEditText.getText().toString());
        attendanceSessionBean.setAttendance_session_subject(subject);

        DBAdapterdbAdapter = new
        DBAdapter(AddAttendanceSessionActivity.this);

        ArrayList<AttendanceBean>attendanceBeanList =
        dbAdapter.getAttendanceBySessionID(attendanceSessionBean);

        ((ApplicationContext)AddAttendanceSessionActivity.this.getApplicationContext()).setAtt
        endanceBeanList(attendanceBeanList);

        Intent intent = new
        Intent(AddAttendanceSessionActivity.this,ViewAttendanceByFacultyActivity.class);

        startActivity(intent);

    }

    });

    viewTotalAttendance=(Button)findViewById(R.id.viewTotalAttendanceButton);
    viewTotalAttendance.setOnClickListener(new OnClickListener() {

        @Override
        public void onClick(View arg0) {

            AttendanceSessionBeanattendanceSessionBean = new
            AttendanceSessionBean();

            FacultyBean
            bean=((ApplicationContext)AddAttendanceSessionActivity.this.getApplicationContext()).getFac
            ultyBean();
```

---

```
attendanceSessionBean.setAttendance_session_faculty_id(bean.getFaculty_id());

attendanceSessionBean.setAttendance_session_department(branch);

attendanceSessionBean.setAttendance_session_class(year);
attendanceSessionBean.setAttendance_session_subject(subject);

DBAdapterdbAdapter = new
DBAdapter(AddAttendanceSessionActivity.this);

ArrayList<AttendanceBean>attendanceBeanList =
dbAdapter.getTotalAttendanceBySessionID(attendanceSessionBean);

((ApplicationContext)AddAttendanceSessionActivity.this.getApplicationContext()).setAttendanceBeanList(attendanceBeanList);

Intent intent = new
Intent(AddAttendanceSessionActivity.this,ViewAttendanceByFacultyActivity.class);

startActivity(intent);

    }

});

}

@Override
@Deprecated
protected Dialog onCreateDialog(int id) {

    return new DatePickerDialog(this, datePickerListener, dyear, month, day);

}

private DatePickerDialog.OnDateSetListenerdatePickerListener = new
DatePickerDialog.OnDateSetListener() {

    public void onDateSet(DatePicker view, int selectedYear,

        int selectedMonth, int selectedDay) {
```

```
                dateEditText.setText(selectedDay + " / " + (selectedMonth + 1) + " / "
                                   + selectedYear);
            }
        };
    }
}
```

**Add Attendance activity:**

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

import java.util.ArrayList;

import android.app.Activity;
import android.app.Dialog;
import android.graphics.Color;
import android.os.Bundle;
import android.util.Log;
import android.view.Menu;
import android.view.View;
import android.view.View.OnClickListener;
import android.view.Window;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.ListView;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.RadioGroup.OnCheckedChangeListener;
import com.android.attendance.bean.AttendanceBean;
import com.android.attendance.bean.StudentBean;
import com.android.attendance.context.ApplicationContext;
```

```
import com.android.attendance.db.DBAdapter;
import com.example.androidattendancesystem.R;
public class AddAttendanceActivity extends Activity {
    ArrayList<StudentBean>studentBeanList;

    private ListView listView;
    private ArrayAdapter<String>listAdapter;

    int sessionId=0;
    String status="P";
    Button attendanceSubmit;
    DBAdapter dbAdapter = new DBAdapter(this);

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout._listview_main);
        sessionId = getIntent().getExtras().getInt("sessionId");
        listView=(ListView)findViewById(R.id.listView);

        final ArrayList<String>studentList = new ArrayList<String>();

        studentBeanList=((ApplicationContext)AddAttendanceActivity.this.getApplicationContext()).getS
tudentBeanList();
        for(StudentBean studentBean : studentBeanList)
        {
            String users =
studentBean.getStudent_firstname()+" "+studentBean.getStudent_lastname();

            studentList.add(users);
            Log.d("users: ", users);
        }

        listAdapter = new ArrayAdapter<String>(this, R.layout.add_student_attendance, R.id.labelA,
studentList);

        listView.setAdapter( listAdapter );
    }
}
```

```

listView.setOnItemClickListener(new OnItemClickListener() {

    @Override

    public void onItemClick(AdapterView<?> arg0, View arg1, int arg2,
        long arg3) {
arg0.getChildAt(arg2).setBackgroundColor(Color.BLUE);
        //arg0.setBackgroundColor(234567);
        arg1.setBackgroundColor(334455);
        final StudentBeanstudentBean = studentBeanList.get(arg2);
        final Dialog dialog = new Dialog(AddAttendanceActivity.this);
        dialog.requestWindowFeature(Window.FEATURE_NO_TITLE);//.....
        dialog setContentView(R.layout.test_layout);
        // set title and cancelable
        RadioGroupradioGroup;
        RadioButton present;
        RadioButton absent;
        radioGroup = (RadioGroup) dialog.findViewById(R.id.radioGroup);
        present=(RadioButton)dialog.findViewById(R.id.PresentradioButton);
        absent=(RadioButton)dialog.findViewById(R.id.AbsentradioButton);
        radioGroup.setOnCheckedChangeListener(new
OnCheckedChangeListener() {

            @Override

            public void onCheckedChanged(RadioGroup group, int
checkedId) {

                if(checkedId == R.id.PresentradioButton) {

                    status = "P";

                } else if(checkedId == R.id.AbsentradioButton) {

                    status = "A";

                } else {

```

```

        }
    }
    });

attendanceSubmit
= (Button)dialog.findViewById(R.id.attendanceSubmitButton);

attendanceSubmit.setOnClickListener(new OnClickListener() {

    @Override

    public void onClick(View arg0) {

        AttendanceBeanattendanceBean = new
AttendanceBean();

        attendanceBean.setAttendance_session_id(sessionId);

        attendanceBean.setAttendance_student_id(studentBean.getStudent_id());

        attendanceBean.setAttendance_status(status);

        DBAdapterdbAdapter =
new DBAdapter(AddAttendanceActivity.this);

        dbAdapter.addNewAttendance(attendanceBean);

        dialog.dismiss();

    }

});

dialog.setCancelable(true);
dialog.show();

    }

});

}

@Override

    public booleanonCreateOptionsMenu(Menu menu) {

```



```
        // Inflate the menu; this adds items to the action bar if it is present.  
        getMenuInflater().inflate(R.menu.main, menu);  
        return true;  
    }  
}
```

### **Add Faculty Activity(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;  
    EditTexttextFirstName;  
    EditTexttextLastName;  
    EditTexttextemail;
```

```
EditTexttextcontact;

EditTexttextaddress;

EditTexttextusername;

EditTexttextpassword;

@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) {

            // TODO Auto-generated method stub

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 {
```

```
        FacultyBeanfacultyBean = 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);  
        DBAdapterdbAdapter = 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) {

    // Inflate the menu; this adds items to the action bar if it is present.

    getMenuInflater().inflate(R.menu.main, menu);

    return true;

}

}

:
```

### **Add Student Activity:**

```
ackage 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;
    EditTexttextFirstName;
    EditTexttextLastName;
    EditTexttextcontact;
    EditTexttextaddress;
    Spinner spinnerbranch,spinneryear;
    String userrole,branch,year;
    private String[] branchString = new String[] { "cse"};
    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.setOnItemSelectedListener(new OnItemSelectedListener() {

    @Override

    public void onItemSelected(AdapterView<?> arg0, View view,

        int arg2, long arg3) {

        // TODO Auto-generated method stub

        ((TextView) arg0.getChildAt(0)).setTextColor(Color.WHITE);

        branch =(String) spinnerbranch.getSelectedItem();

    }

    @Override

    public void onNothingSelected(AdapterView<?> arg0) {

        // TODO Auto-generated method stub

    }

});

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.setOnItemSelectedListener(new OnItemSelectedListener() {
    @Override
    public void onItemSelected(AdapterView<?> arg0, View view,
        int arg2, long arg3) {
        // TODO Auto-generated method stub
        ((TextView) arg0.getChildAt(0)).setTextColor(Color.WHITE);
        year =(String) spinneryear.getSelectedItem();
    }

    @Override
    public void onNothingSelected(AdapterView<?> arg0) {
        // TODO Auto-generated method stub
    }
});

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) {
        // TODO Auto-generated method stub
        // ..... validation
```

```
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 {
    StudentBeanstudentBean = 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);
    DBAdapterdbAdapter= 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) {

    // Inflate the menu; this adds items to the action bar if it is present.

    getMenuInflater().inflate(R.menu.main, menu);

    return true;

}

}
```

**View faculty activity:**

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

import java.util.ArrayList;

import android.app.Activity;

import android.app.AlertDialog;

import android.content.DialogInterface;

import android.os.Bundle;

import android.util.Log;

import android.view.Menu;

import android.view.View;

import android.widget.AdapterView;
```

```
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.Toast;
import com.android.attendance.bean.FacultyBean;
import com.android.attendance.db.DBAdapter;
import com.example.androidattendancesystem.R;
public class ViewFacultyActivity extends Activity {
    ArrayList<FacultyBean>facultyBeanList;
    private ListView listView ;
    private ArrayAdapter<String>listAdapter;
    DBAdapter dbAdapter = new DBAdapter(this);
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout._listview_main);
        listView=(ListView)findViewById(R.id.listview);
        final ArrayList<String>facultyList = new ArrayList<String>();
        facultyBeanList=dbAdapter.getAllFaculty();
        for(FacultyBean facultyBean : facultyBeanList)
        {
            String users = " FirstName: " +
facultyBean.getFaculty_firstname()+"\nLastname:"+facultyBean.getFaculty_lastname();
            facultyList.add(users);
            Log.d("users: ", users);
        }
        listAdapter = new ArrayAdapter<String>(this, R.layout.view_faculty_list,
R.id.labelF, facultyList);
    }
}
```

```

listView.setAdapter( listAdapter );

listView.setOnItemClickListener(new OnItemClickListener()

    @Override

public boolean onItemClick(AdapterView<?> arg0, View arg1,final int
position, long arg3) {

    AlertDialog.Builder alertDialogBuilder = new
AlertDialog.Builder(ViewFacultyActivity.this);

        alertDialogBuilder.setTitle(getTitle()+"decision");

        alertDialogBuilder.setMessage("Are you sure?");

alertDialogBuilder.setPositiveButton("Yes",new DialogInterface.OnClickListener()
{
    public void onClick(DialogInterface dialog,int id) {

        facultyList.remove(position);

        listAdapter.notifyDataSetChanged();

        listAdapter.notifyDataSetChanged();

        dbAdapter.deleteFaculty(facultyBeanList.get(position).getFaculty_id());

        facultyBeanList=dbAdapter.getAllFaculty();

        for(FacultyBean facultyBean : facultyBeanList)
        {

            String users = " FirstName: " +
facultyBean.getFaculty_firstname()+"\nLastname:"+facultyBean.getFaculty_lastname();

            facultyList.add(users);

            Log.d("users: ", users);

        }

    }

});

alertDialogBuilder.setNegativeButton("No",new DialogInterface.OnClickListener()
{

    public void onClick(DialogInterface dialog,int id) {

        // cancel the alert box and put a Toast to the user

        dialog.cancel();
    }
}

```

```
        Toast.makeText(getApplicationContext(), "You
choose cancel",
        Toast.LENGTH_LONG).show();
    }
    });
    AlertDialog alertDialog = alertDialogBuilder.create();
    // show alert
    alertDialog.show();
    return false;
}
});
}
@Override
public boolean onCreateOptionsMenu(Menu menu) {
    // Inflate the menu; this adds items to the action bar if it is present.
    getMenuInflater().inflate(R.menu.main, menu);
    return true;
}
}
```

**View student activity:**

```
package com.android.attendance.activity;
import com.example.androidattendancesystem.R;
import android.os.Bundle;
import android.app.Activity;
import android.content.Intent;
import android.graphics.Color;
```

```
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.Spinner;
import android.widget.TextView;
import android.widget.AdapterView.OnItemClickListener;

public class ViewStudentActivity extends Activity {

    Spinner spinnerbranch,spinneryear;
    String userrole,branch,year;
    private String[] branchString = new String[] { "cse" };
    private String[] yearString = new String[] { "SE","TE","BE" };
    Button submit;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.viewstudent);
        spinnerbranch=(Spinner)findViewById(R.id.spinnerbranchView);
        spinneryear=(Spinner)findViewById(R.id.spinneryearView);
        spinnerbranch.setOnItemClickListener(new OnItemClickListener() {

            @Override
            public void onItemClick(AdapterView<?> arg0, View view,
                                    int arg2, long arg3) {
                // TODO Auto-generated method stub
                ((TextView) arg0.getChildAt(0)).setTextColor(Color.WHITE);
            }
        });
    }
}
```

```
        branch =(String) spinnerbranch.getSelectedItem();
    }
    @Override
    public void onNothingSelected(AdapterView<?> arg0) {
        // TODO Auto-generated method stub
    }
});
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);

/// ..... spinner2

spinneryear.setOnItemSelectedListener(new OnItemSelectedListener() {
    @Override
    public void onItemSelected(AdapterView<?> arg0, View view,
        int arg2, long arg3) {
        // TODO Auto-generated method stub
        ((TextView) arg0.getChildAt(0)).setTextColor(Color.WHITE);
        year =(String) spinneryear.getSelectedItem();
    }

    @Override
    public void onNothingSelected(AdapterView<?> arg0) {
        // TODO Auto-generated method stub
    }
});
```

```
        }

    });

    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);

    submit=(Button)findViewById(R.id.submitButton);

    submit.setOnClickListener(new OnClickListener() {

        @Override

        public void onClick(View arg0) {

            Intent intent = new
Intent(ViewStudentActivity.this,ViewStudentByBranchYear.class);

            intent.putExtra("branch", branch);

            intent.putExtra("year", year);

            startActivity(intent);

        }

    });

}

@Override

public boolean onCreateOptionsMenu(Menu menu) {

    // Inflate the menu; this adds items to the action bar if it is present.

    getMenuInflater().inflate(R.menu.main, menu);

    return true;

}

}
```

**View Student by Branch Year:**

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

import java.util.ArrayList;

import android.app.Activity;
import android.app.AlertDialog;
import android.content.DialogInterface;
import android.os.Bundle;
import android.util.Log;
import android.view.Menu;
import android.view.View;
import android.widget.AdapterView;
import android.widget.AdapterView.OnItemClickListener;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.Toast;

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

public class ViewStudentByBranchYear extends Activity {

    ArrayList<StudentBean>studentBeanList;

    private ListView listView ;

    private ArrayAdapter<String>listAdapter;

    String branch;

    String year;

    DBAdapter dbAdapter = new DBAdapter(this);

    @Override

    protected void onCreate(Bundle savedInstanceState) {
```



```
super.onCreate(savedInstanceState);

setContentView(R.layout._listview_main);

listView=(ListView)findViewById(R.id.listview);

final ArrayList<String>studentList = new ArrayList<String>();

branch=getIntent().getExtras().getString("branch");
year =getIntent().getExtras().getString("year");
studentBeanList=dbAdapter.getAllStudentByBranchYear(branch, year);
for(StudentBeanstudentBean : studentBeanList)
{
    String users =
studentBean.getStudent_firstname()+" "+studentBean.getStudent_lastname();
    studentList.add(users);
    Log.d("users: ", users);
}

listAdapter = new ArrayAdapter<String>(this, R.layout.view_student_list,
R.id.label, studentList);

listView.setAdapter( listAdapter );

listView.setOnItemClickListener(new OnItemClickListener() {
@Override
    public booleanonItemClick(AdapterView<?> arg0, View arg1,
        final int position, long arg3) {

AlertDialog.BuilderalertDialogBuilder = new
AlertDialog.Builder(ViewStudentByBranchYear.this);

        alertDialogBuilder.setTitle(getTitle()+"decision");
        alertDialogBuilder.setMessage("Are you sure?");
        alertDialogBuilder.setPositiveButton("Yes",newDialogInterface.OnClickListener()
{
```

```
public void onClick(DialogInterfacedialog,int id) {  
    studentList.remove(position);  
    listAdapter.notifyDataSetChanged();  
    listAdapter.notifyDataSetChanged();  
    dbAdapter.deleteStudent(studentBeanList.get(position).getStudent_id());  
    studentBeanList=dbAdapter.getAllStudentByBranchYear(branch,  
year);  
for(StudentBeanstudentBean : studentBeanList)  
    {String users = " FirstName: " +  
studentBean.getStudent_firstname()+"\nLastname:"+studentBean.getStudent_lastname();  
        studentList.add(users);  
        Log.d("users: ", users);  
    }  
}  
  
alertDialogBuilder.setNegativeButton("No",new DialogInterface.OnClickListener()  
    public void onClick(DialogInterfacedialog,int id) {  
        // cancel the alert box and put a Toast to the user  
        dialog.cancel();  
        Toast.makeText(getApplicationContext(), "You  
choose cancel",  
        Toast.LENGTH_LONG).show();  
    }  
});  
AlertDialogalertDialog = alertDialogBuilder.create();  
    // show alert  
    alertDialog.show();  
    return false;  
}
```

```
        })
    }

    @Override
    public boolean onCreateOptionsMenu(Menu menu) {
        // Inflate the menu; this adds items to the action bar if it is present.
        getMenuInflater().inflate(R.menu.main, menu);
        return true;
    }
}

// Deleting single contact
public void deleteUser(UserInfo userinfo) {
    SQLiteDatabase db = this.getWritableDatabase();
    db.delete(TABLE_INFO_USER, KEY_ID + " = ?",
        new String[] { String.valueOf(userinfo.getUser_id()) });
    db.close();
}

*/
```

### **Scope of the work:-**

The scope of a School Attendance Management System is to help schools keep track of when students and staff members come to school and when they leave. This system makes it easy for schools to manage attendance records and ensure that everyone is accounted for during school hours. With this system, schools can create accurate attendance reports, making it simpler to monitor student and staff attendance patterns.

The system can also assist in generating reports for parents, showing when their children attended school. It simplifies the process of tracking tardiness and absences, helping schools and parents work together to ensure students are present and engaged in their learning.

### **Future Scope and further enhancement of the Project:-**

The future scope of the attendance management system includes integration with biometric authentication for enhanced security, development of a mobile app for convenient tracking, incorporation of AI for predictive attendance analysis, and expansion to support multiple languages and customizable reporting features for greater versatility and usability.

The future scope and further enhancement of the Attendance Management System (AMS) project hold promising avenues for technological innovation and improved efficiency. As we look ahead, the integration of advanced technologies such as Artificial Intelligence (AI) and Machine Learning (ML) presents an exciting prospect. These technologies can be harnessed to predict attendance patterns, analyze historical data, and provide valuable insights for better workforce management.

Moreover, the future of AMS involves a shift toward enhanced biometric authentication methods, ensuring more secure and accurate attendance tracking. Technologies like facial recognition with liveness detection and palm print recognition can significantly contribute to the reliability and precision of the systems.

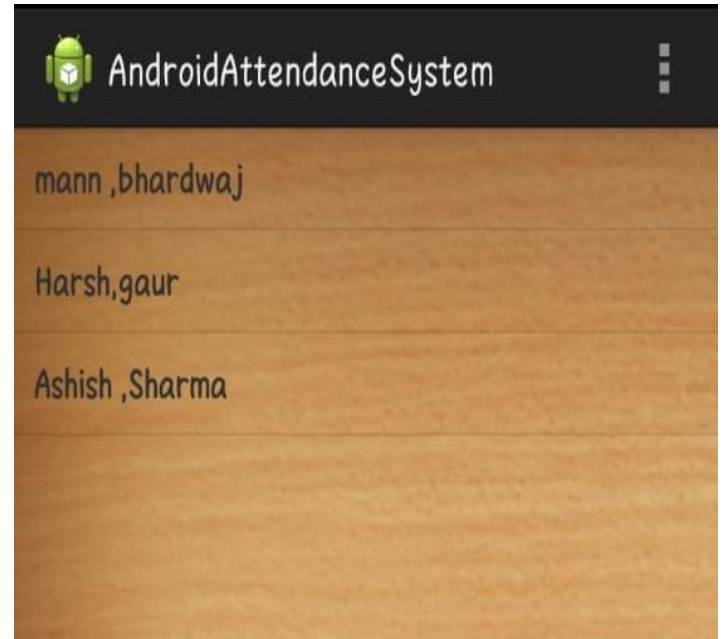
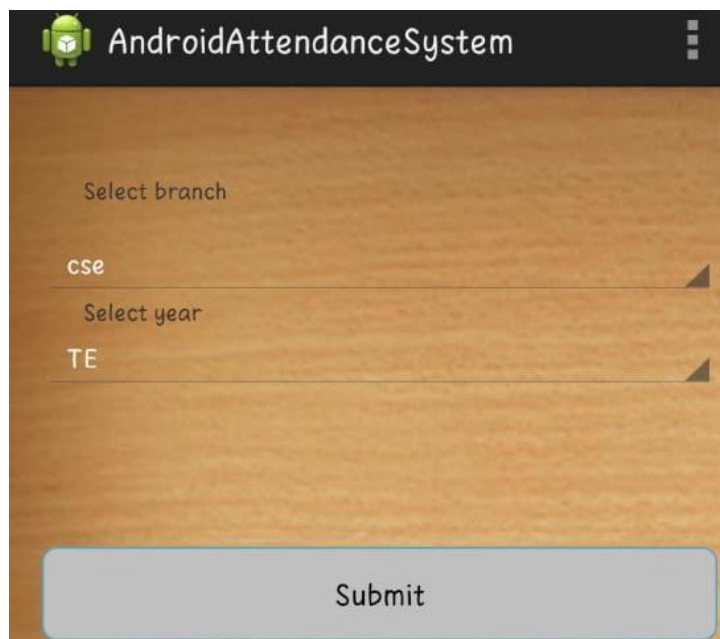
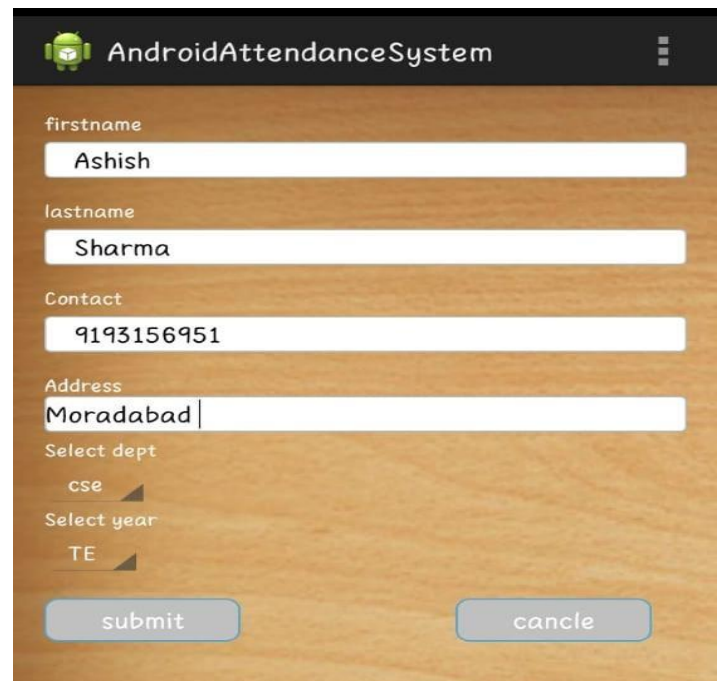
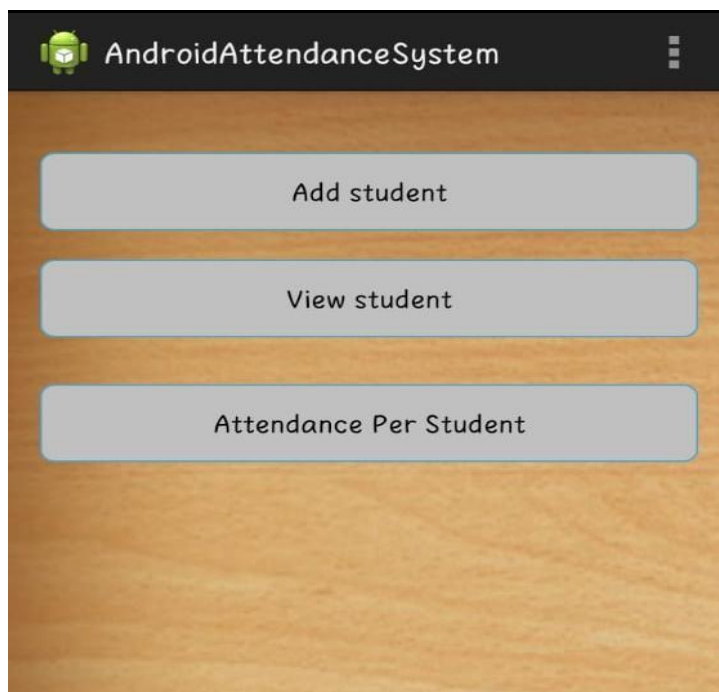
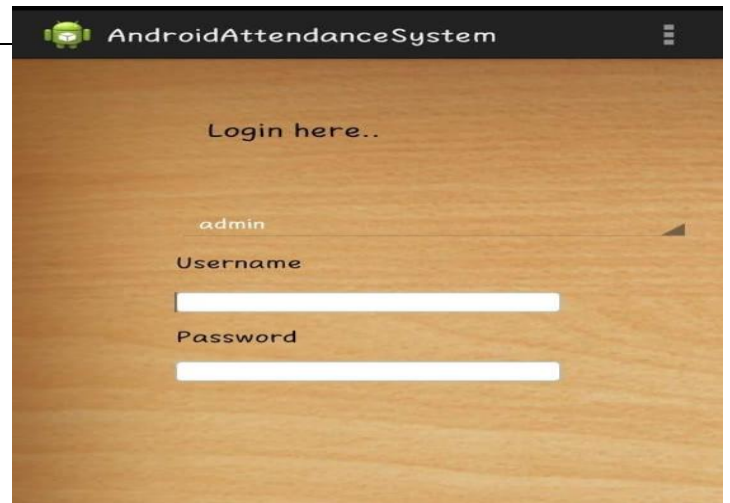
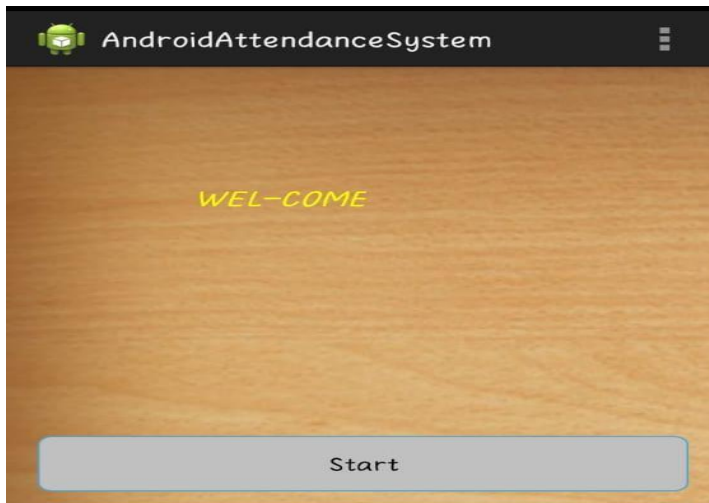
### **TeamDetails:-.**

Project	Course	Student ID	Student Name	Role	Github Link	Sign.
Attendance Management System	BCA (CTIS) 5 <sup>th</sup> sem	TCA2156010	Harsh Gaur	Designer	<a href="https://github.com/Warriorclash/Attendance-Management-System">https://github.com/Warriorclash/Attendance-Management-System</a>	
		TCA2156026	Shilpy Tyagi	Developer	<a href="https://github.com/tyagiishilpy">https://github.com/tyagiishilpy</a>	
		TCA2156004	Ashish Sharma	Tester	<a href="https://github.com/titanwarrior">https://github.com/titanwarrior</a>	

**Conclusion:-**

In conclusion, implementing an Attendance Management System (AMS) in schools is a crucial step towards fostering a more organized and efficient learning environment. The system simplifies the often task of manual attendance tracking, providing schools with a reliable and automated method to record and manage student and staff attendance. With the AMS in place, schools can generate accurate attendance reports, facilitating timely interventions for students with irregular attendance patterns.

Moreover, the AMS encourages accountability among students and enhances communication with parents. By providing real-time attendance information and reports, parents can stay informed about their child's school attendance, enabling a collaborative effort to support consistent attendance and active participation in academic activities.

**Snapshot:-**



The screenshot shows the registration screen of the AndroidAttendanceSystem app. The title bar at the top is dark grey with the app's name and an Android icon. The background is a light brown wood texture. The word "registration" is centered at the top. Below it are several input fields: "firstname" with the value "Pankaj", "lastname" with "Bhardwaj", "Mobilen" with "7017879680", "Address" with "Moradabad", "Username" with "admin", and "password" with masked characters. At the bottom are two buttons: "submit" and "cancle".

AndroidAttendanceSystem

registration

firstname  
Pankaj

lastname  
Bhardwaj

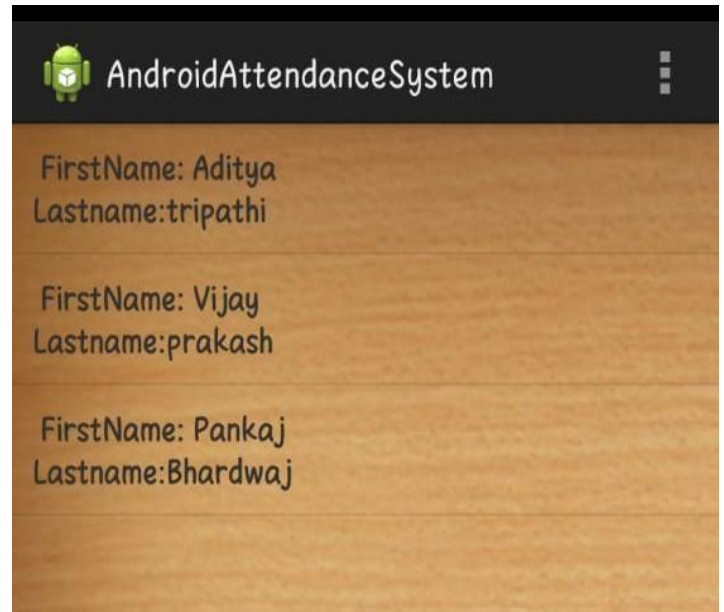
Mobilen  
7017879680

Address  
Moradabad

Username  
admin

password  
.....

submit      cancle




The screenshot shows a screen displaying a list of users. The title bar is the same as the previous screen. The background is the same wood texture. The text is displayed in a simple, sans-serif font. There are three entries, each showing "FirstName:" followed by a name and "Lastname:" followed by a name.

AndroidAttendanceSystem

FirstName: Aditya  
Lastname:tripathi

FirstName: Vijay  
Lastname:prakash

FirstName: Pankaj  
Lastname:Bhardwaj



The screenshot shows the main menu of the AndroidAttendanceSystem app. The title bar is the same. The background is the same wood texture. There are six large, light grey buttons with rounded corners, arranged in two columns. The buttons are labeled: "Add student", "View student", "Attendance Per Student", "Add faculty", "View faculty", and "Logout".

AndroidAttendanceSystem

Add student

View student

Attendance Per Student

Add faculty

View faculty

Logout

**References:-**

- <https://www.javatpoint.com/software-engineering-big-bang-model>
- <https://youtu.be/MshjodioZtU?si=fKJb-sFYOP1IntZ>
- [https://youtu.be/lqAPhLLd\\_bM?si=S7REHrPeg34zhYXf](https://youtu.be/lqAPhLLd_bM?si=S7REHrPeg34zhYXf)
- <https://en.wikipedia.org/w/index.php?search=attendance+management+&title=Special%3ASearch&ns0=1>
- <https://www.slideshare.net/ManojKumar1530/attendance-management-system-project-rep>
- <https://www.betterplace.co.in/blog/advantages-of-attendance-management-system/>
- [https://www.researchgate.net/publication/323511629 Student Attendance Management System](https://www.researchgate.net/publication/323511629_Student_Attendance_Management_System)
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- <https://hrone.cloud/future-of-work-reinvented-attendance-management/>