Visvesvaraya Technological University, Belagavi – 590010

MOBILE APPLICATION DEVELOPMENT
MINI PROJECT REPORT
ON
College Voting Application

Submitted by

Sukith S	*4SO19CS182*
Sairaj Raikar	*4SO20CS416*
Shrinidhi Kolvekar	*4SO20CS418*

Under the guidance of

Ms Shravya Shetty

(Assistant Professor, CSE Department)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

ST JOSEPH ENGINEERING COLLEGE

Vamanjoor, Mangaluru -575028, Karnataka

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CERTIFICATE

*This is to certify that the Mini project entitled **"College Voting Application"** is a bonafide work carried out by*

Sukith S	*4SO19CS182*
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Students of sixth semester B.E. Computer Science & Engineering and submitted as a part of the course Mobile Application Development with Mini Project (18CSMP68), during the academic year 2021-2022.

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Ms Shravya Shetty	**Dr Sridevi Saralaya**
Project Guide	**Head of the Department**

Name of the Examiners	**Signature with Date**
1. ----------	1. ----------
2. ----------	2. ----------

ABSTRACT

The Student Voting System system provides online voters registration forms for students where students registers and are allowed to log in as either students or delegates or candidates. Each registered user has a password to log in. The system provides an interactive platform where voters and candidates interacts and thus candidates perform their campaigns. The system allows preliminary voting and the results are graphically represented in percentage. This system also allows the candidates to be liked by users and the most liked candidate is the most popular. The system compute and gives the election results for all the posts and provides reports for the whole election process. The main objective of this system is to design, develop and implement an efficient, user friendly, interactive student voting system. The methodology used is waterfall.

ACKNOWLEDGEMENT

We dedicate this page to acknowledge and thank those responsible for the shaping of the project. Without their guidance and help, the experience while constructing the dissertation would not have been so smooth and efficient.

We sincerely thank **Ms Shravya Shetty, Assistant Professor**, Department of Computer Science and Engineering for her guidance and valuable suggestions which helped us to complete the project.

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We are extremely thankful to our **Director, Rev. Fr Wilfred Prakash D'Souza**, our **Principal, Dr Rio D'Souza**, and **Assistant Director, Rev. Fr Alwyn Richard D'Souza** for their support and encouragement.

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We also extend our gratitude to our friends and family members for their continuous support.

CONTENTS

CHAPTER 1 – INTRODUCTION

Android Voting System project is developed in java using Android Studio and includes SQLite to implement database creation and storage. The project has lots of essential features in order to have a voting system to elect candidates for specific position in the college. This project contains a main screen with options for voter and admin login. The Voter's login page is where the registered voter can sign in to vote. The voter can also request for password if forgotten using forgot password link. The admin login allows admins to login where he/she can add new voters to the list, view total votes till time and view candidates list who have already voted. While logging in from voter's login, the user should provide their USN registered through admin and password in order to log in to the system to vote. Students can cast single vote per registered USN, and nonregistered candidates cannot vote for the position.

CHAPTER 2 – ABOUT ANDROID STUDIO

Android Studio is the official Integrated Development Environment (IDE) for Android app development, based on IntelliJ IDEA . On top of IntelliJ's powerful code editor and developer tools, Android Studio offers even more features that enhance your productivity when building Android apps, such as:

- A flexible Gradle-based build system
- A fast and feature-rich emulator
- A unified environment where you can develop for all Android devices
- Apply Changes to push code and resource changes to your running app without
- restarting your app
- Code templates and GitHub integration to help you build common app features
- and import sample code
- Extensive testing tools and frameworks
- Lint tools to catch performance, usability, version compatibility, and other
- problems
- C++ and NDK support
- Built-in support for Google Cloud Platform, making it easy to integrate Google
- Cloud Messaging and App Engine

CHAPTER 3 – DESIGN AND IMPLEMENTATION

3.1 XML LAYOUT DESIGN

3.1.1 Main Screen

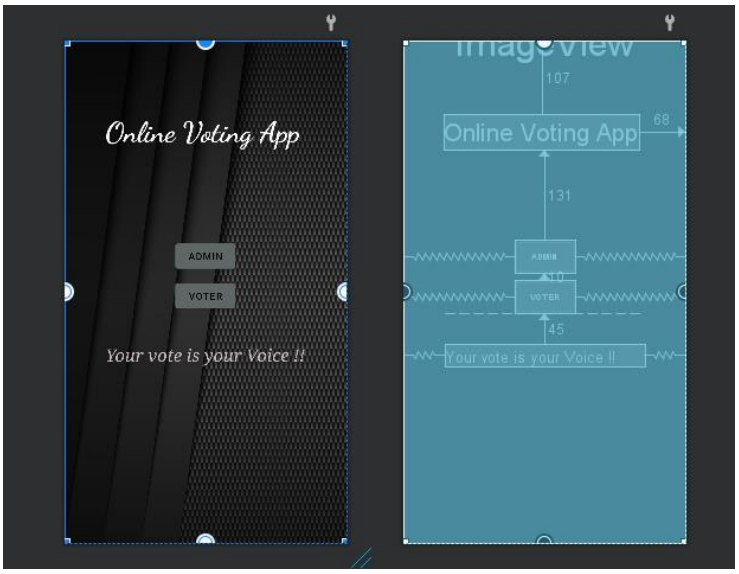

Fig 3.1.1: Home Screen Layout

3.1.2 Admin Login

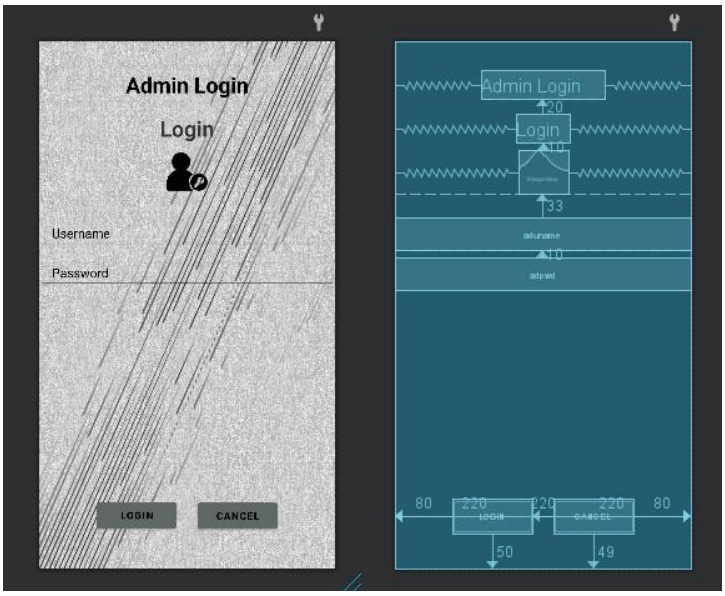

Fig 3.1.1: Admin Login Screen Layout

3.1.3 Voter Login

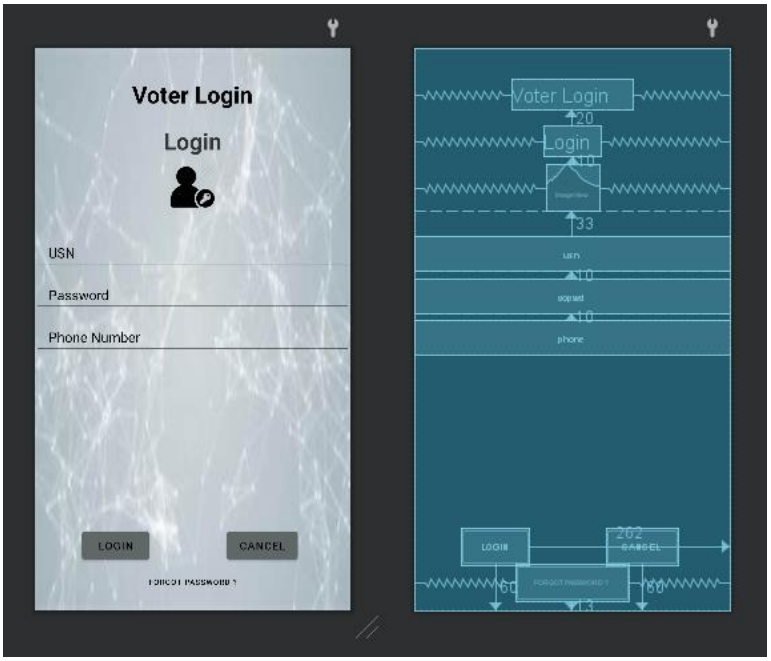

Fig 3.1.3: Voter Login Screen Layout

3.1.4 Password Recovery

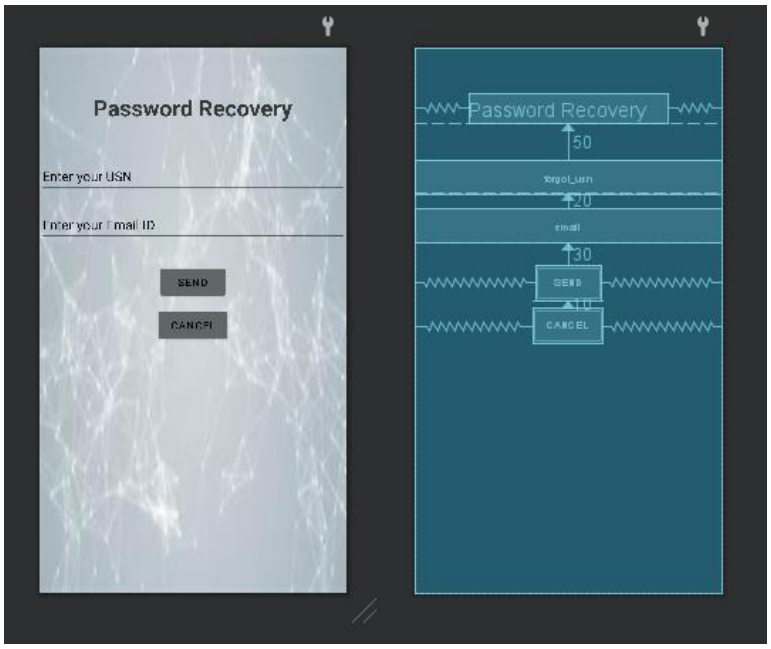

Fig 3.1.4: Password Recovery Screen Layout

3.1.5 Admin Page

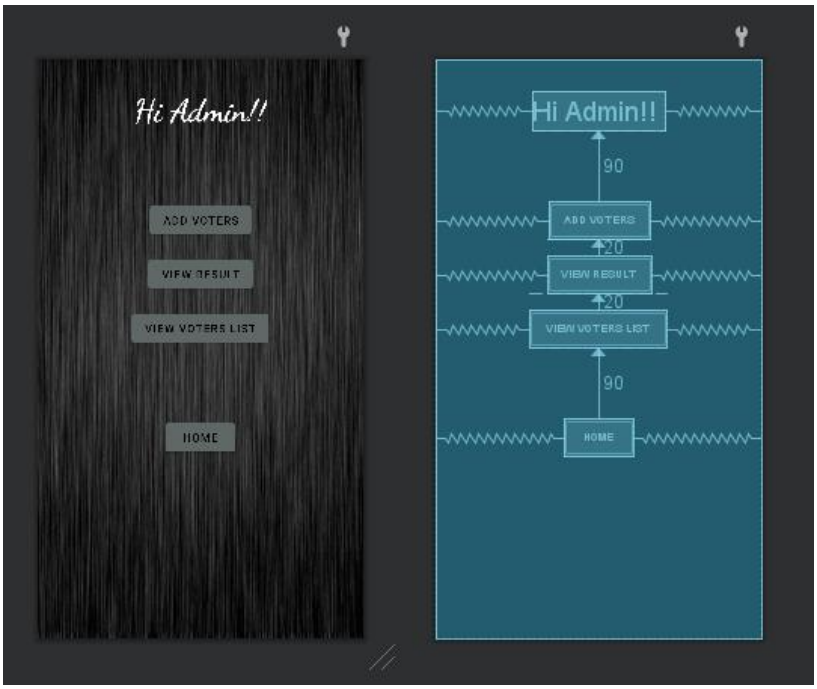

Fig 3.1.5: Admin page Layout

3.1.6 Add Voter

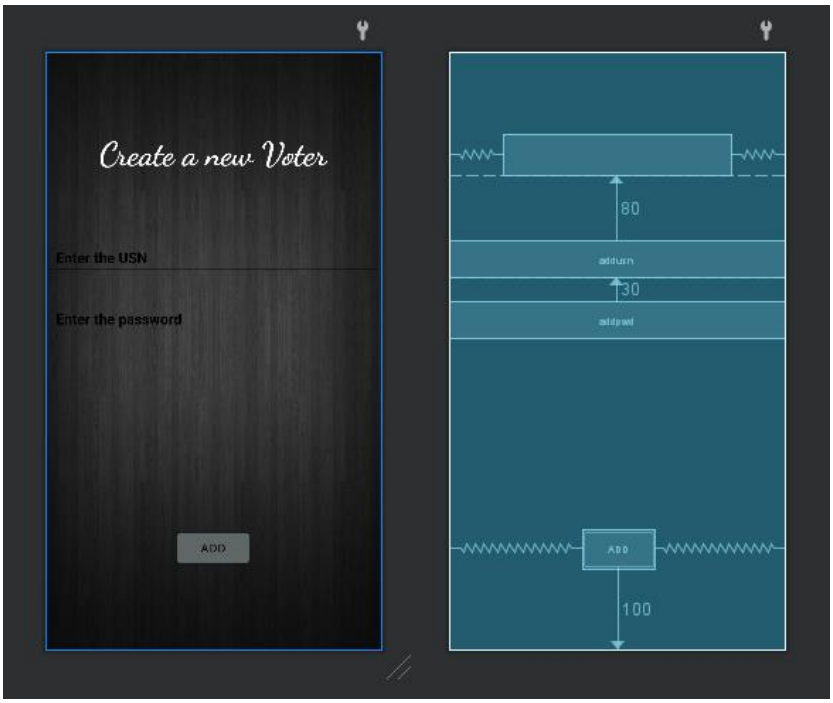

Fig 3.1.6: Add Voter Screen Layout

3.1.7 Result Screen

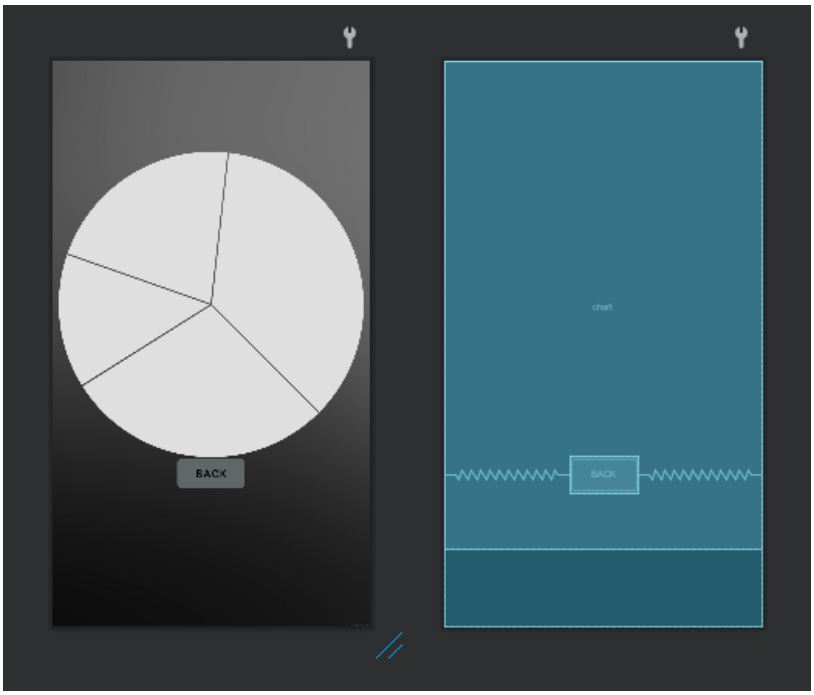

Fig 3.1.7: Result Display Screen Layout

3.1.8 Voters List

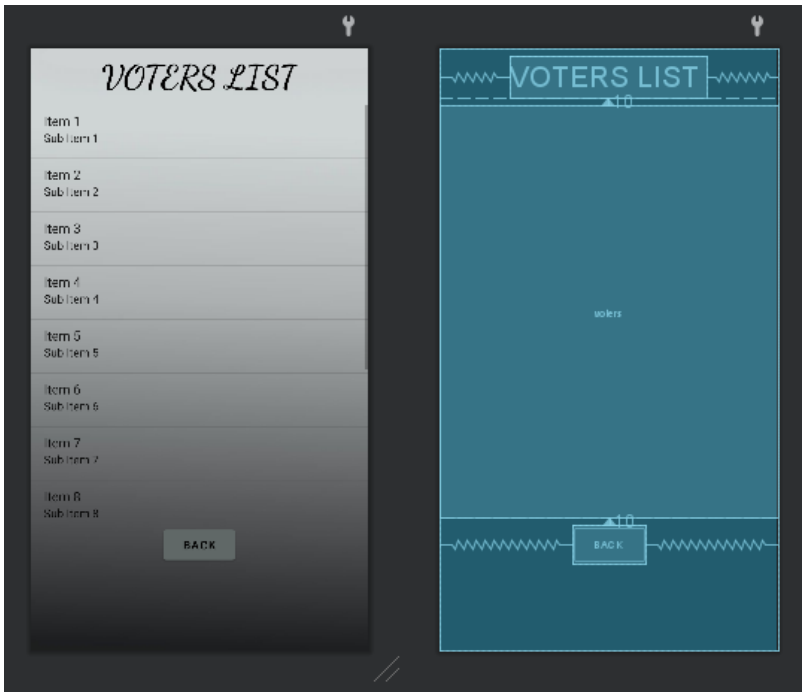

Fig 3.1.8: Voters List Screen Layout

3.1.9 Voting Page

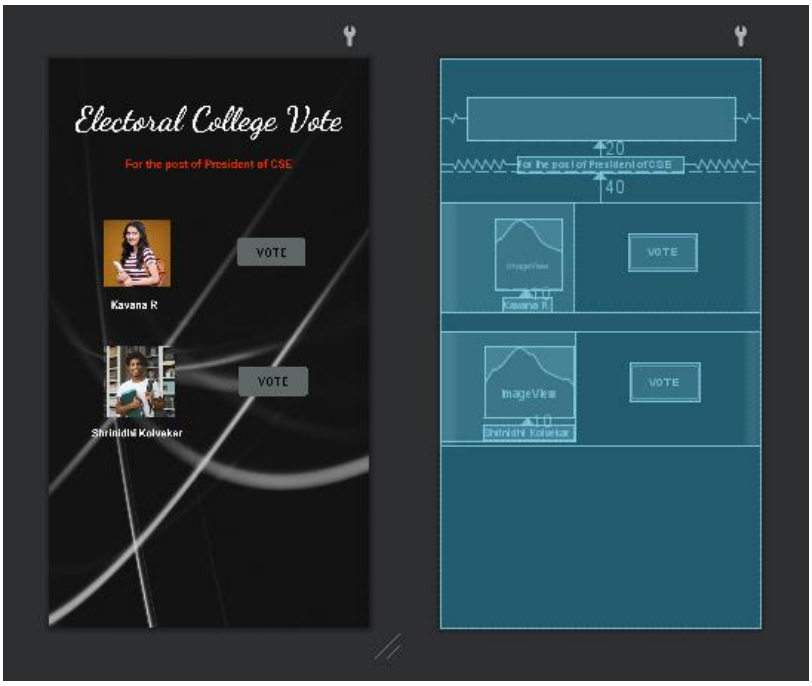

Fig 3.1.9: Voting Page Screen Layout

3.1.10 Final Page

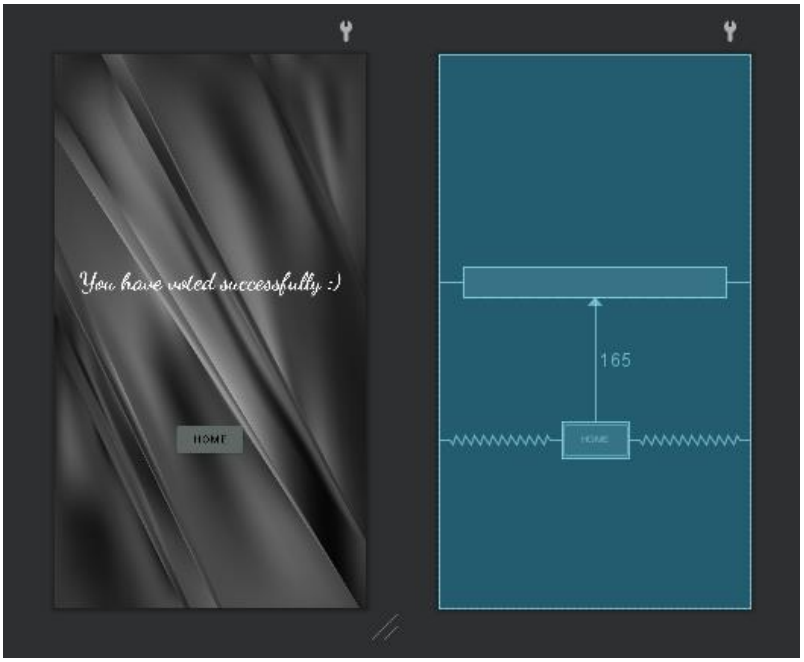

Fig 3.1.10: Successful Submission Screen Layout

3.2 PALETTE AND ATTRIBUTE

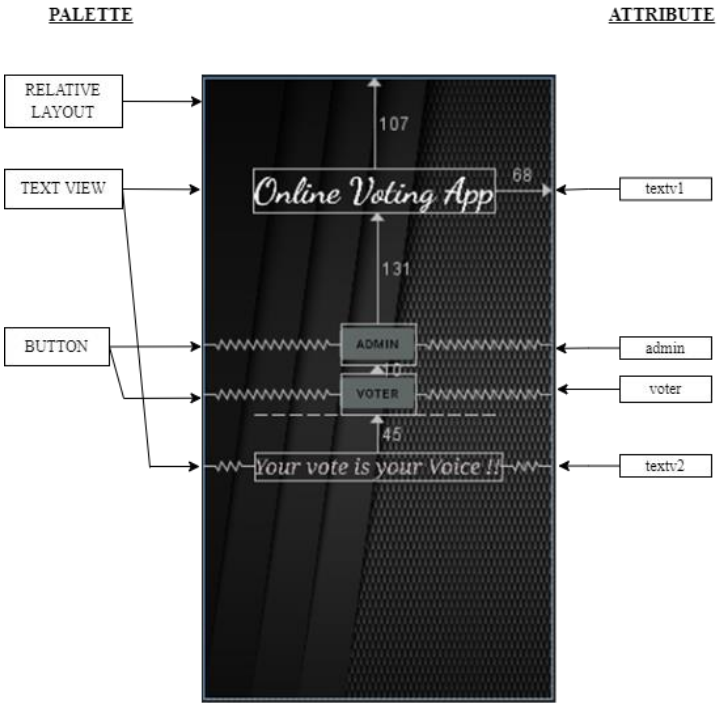

Fig 3.2.1 Main Screen

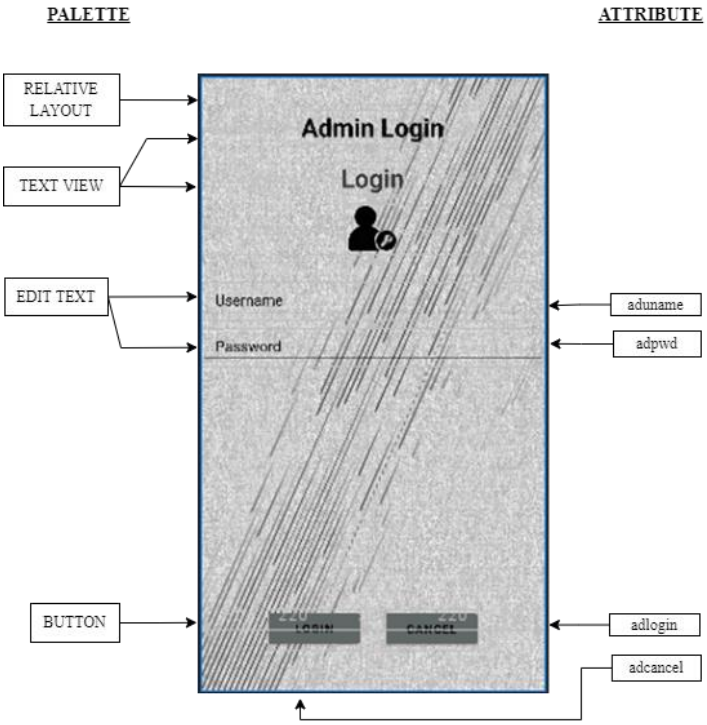

Fig 3.2.2 Admin Login

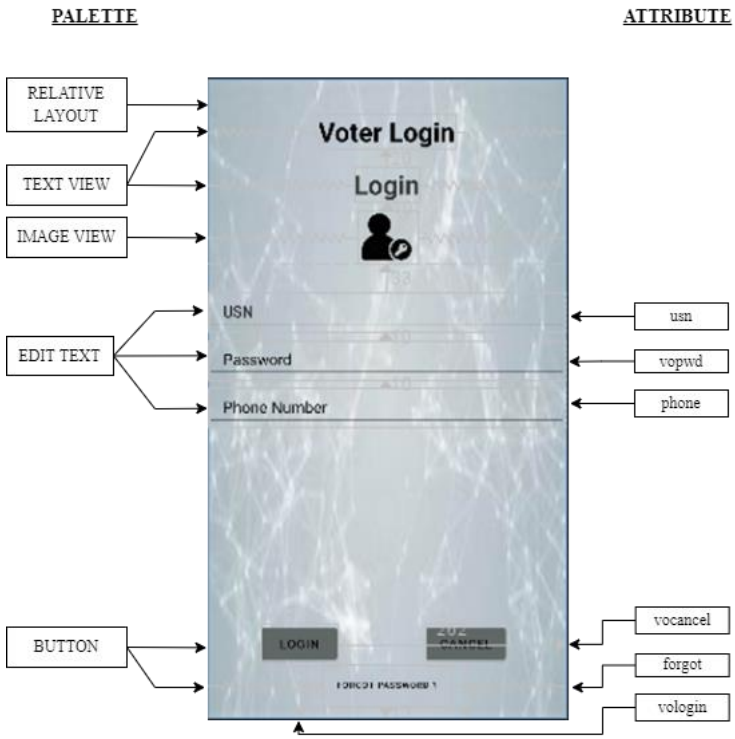

Fig 3.2.3: Voter Login

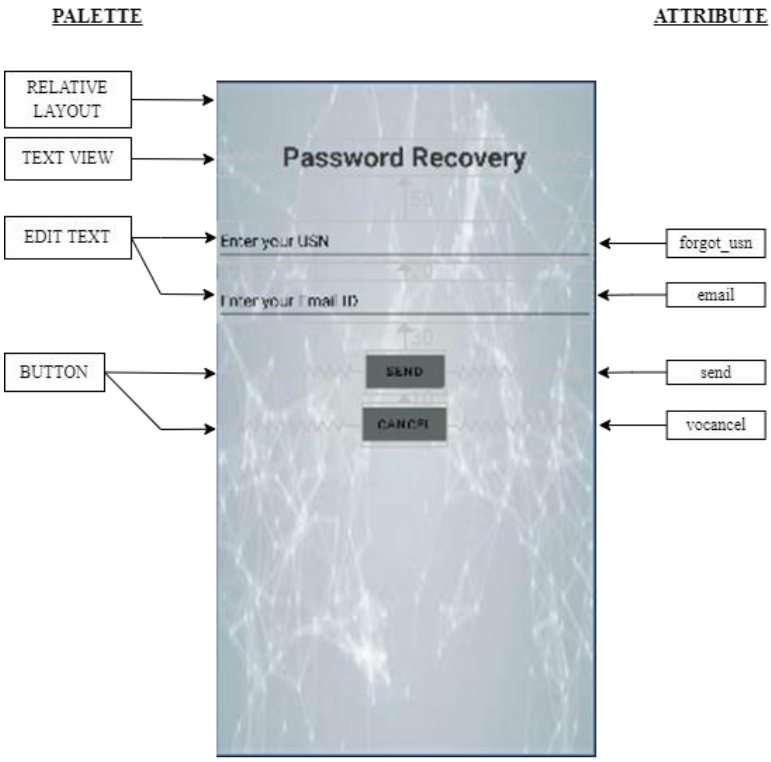

Fig 3.2.4: Password Recovery

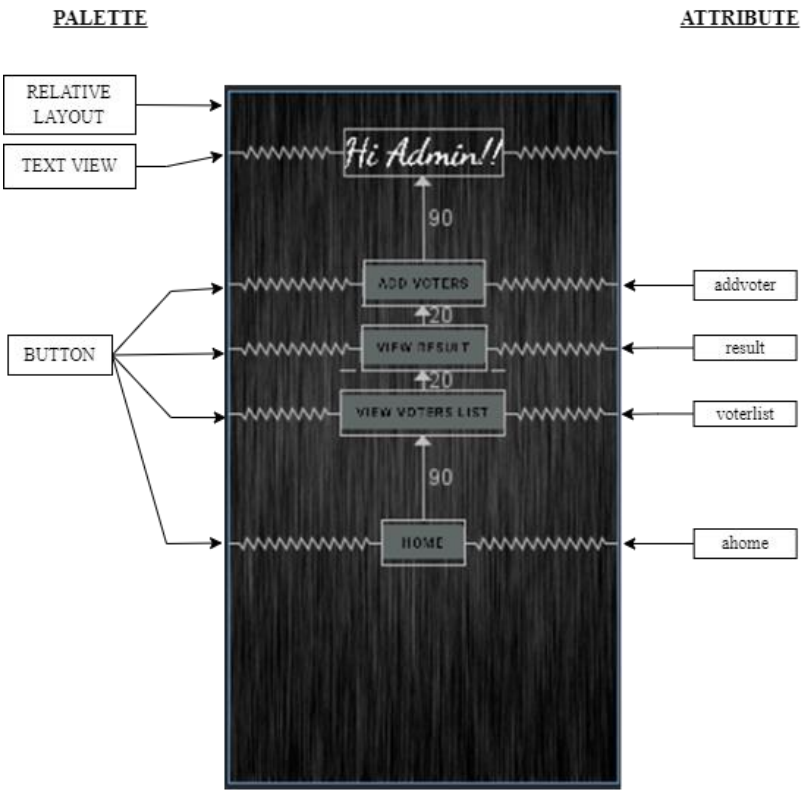

Fig 3.2.5: Admin page

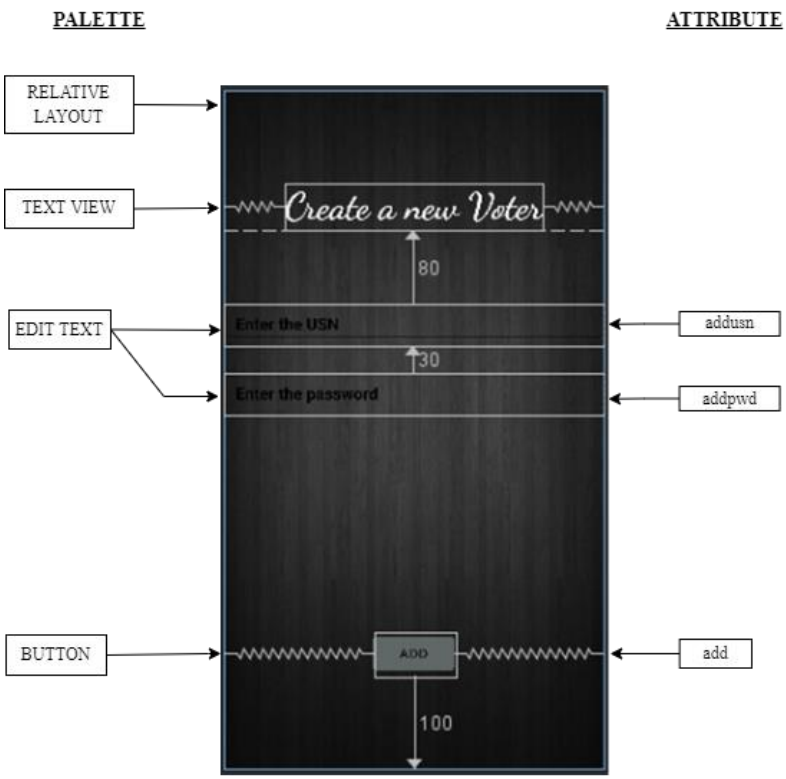

Fig 3.2.6: Add Voter

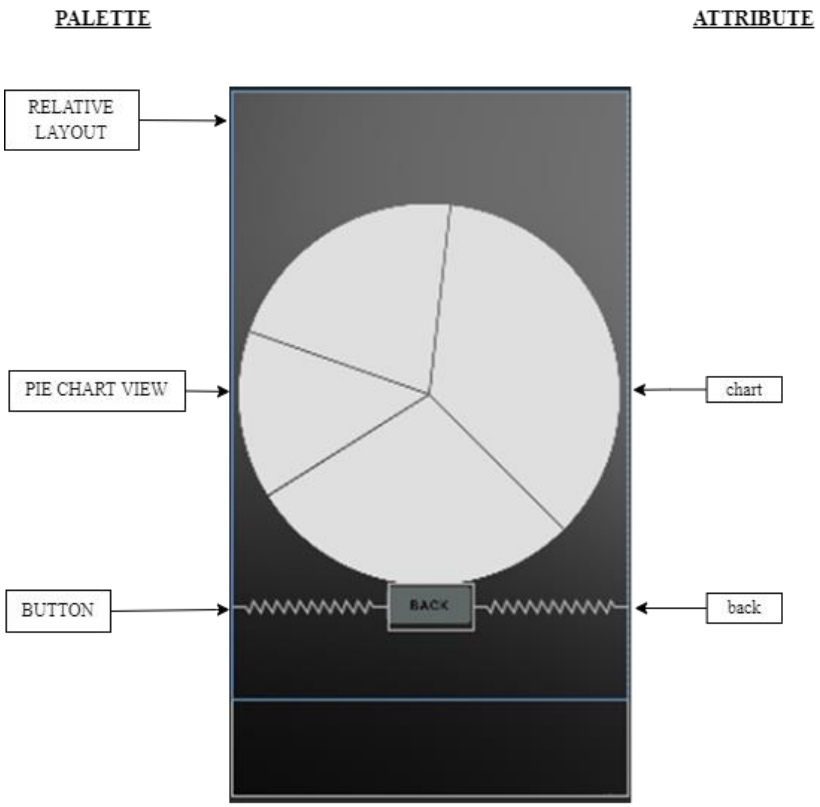

Fig 3.2.7: Result Display

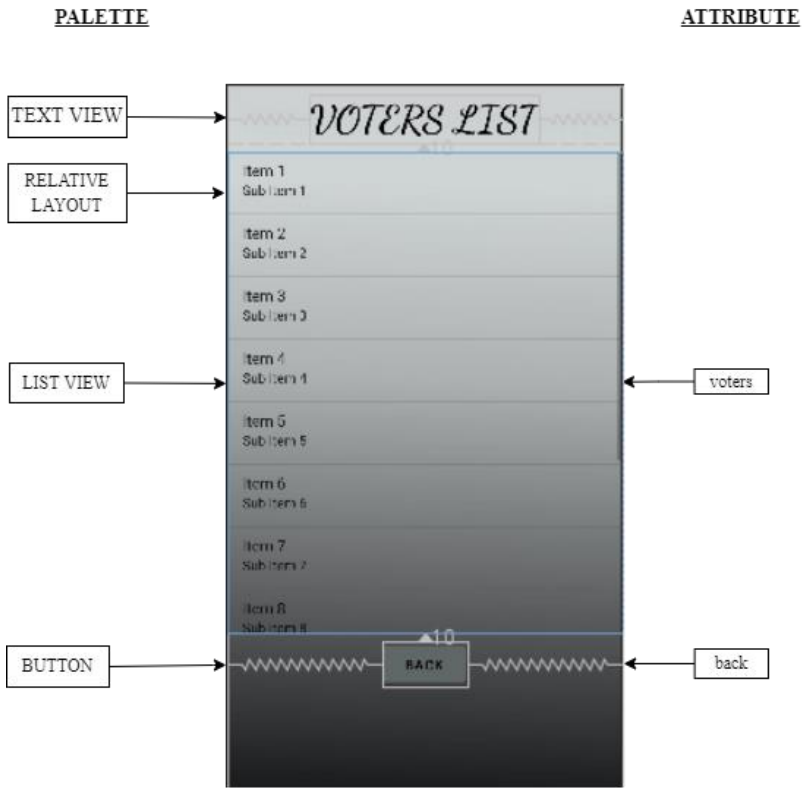

Fig 3.2.8: Voters List

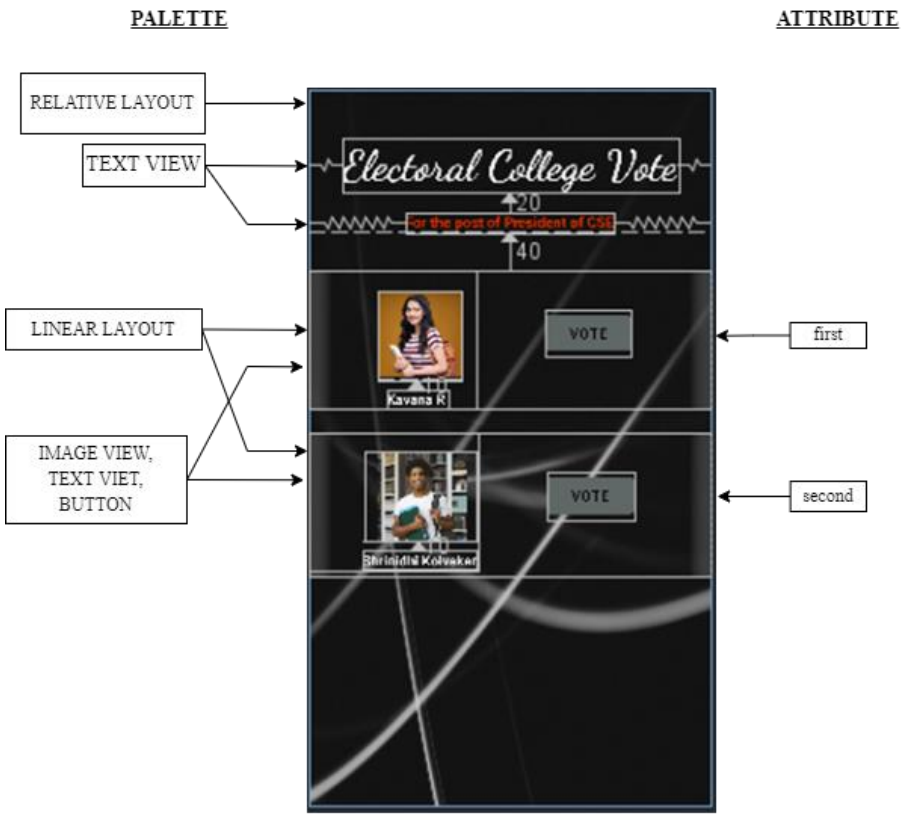

Fig 3.2.9: Voting Page

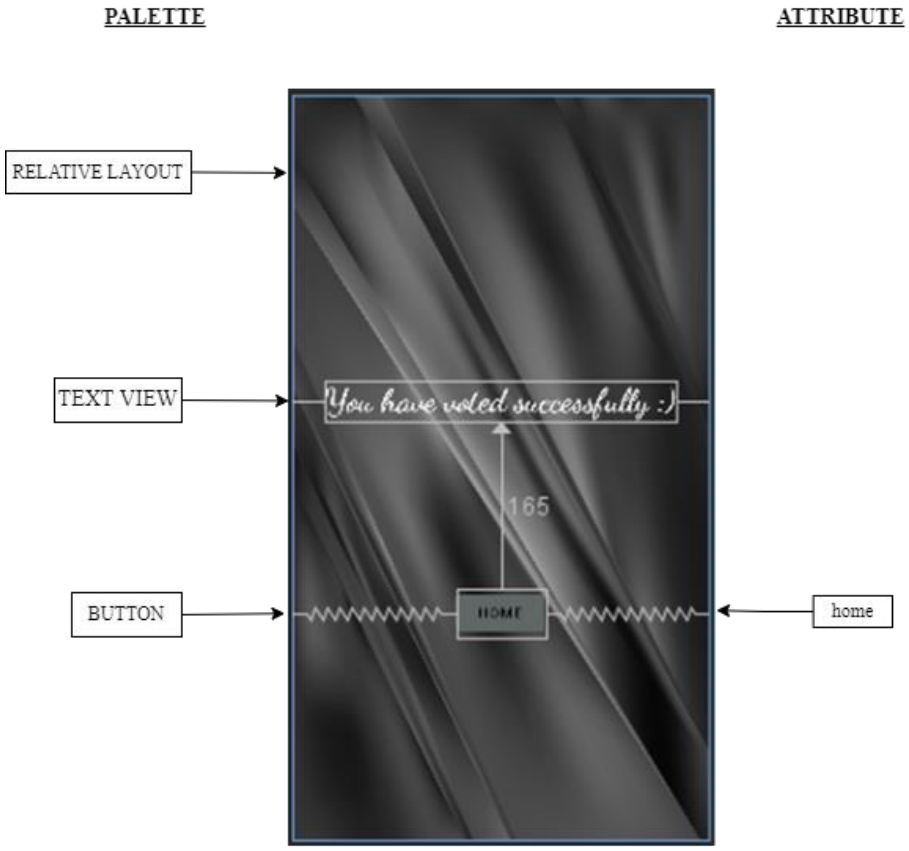

Fig 3.2.10: Successful Submission

3.3 DESCRIPTION ABOUT IMPLEMENTATION

DatabaseHelper.java

// To create a database using SQLite so to store app data with each use

```
package com.example.onlinevotingapp;

import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

import java.util.ArrayList;

public class DatabaseHelper extends SQLiteOpenHelper{
    static final String DATABASE = "VotingDB";
    static final int DATABASE_VERSION=1;
    static final String ADMIN_TABLE = "Admin_table";
    static  final String A_ID = "a_id";
    static final String NAME = "username";
    static final String A_PASSWORD = "a_password";
    static final String VOTER_TABLE ="Voter_table";
    static  final String V_ID = "v_id";
    static final String USN = "usn";
    static final String V_PASSWORD = "v_password";
    static final String PHNO = "ph_no";
    static final String VOTECASTED_TABLE = "Votecasted_table";
    static  final String VC_ID = "vc_id";
    static final String VC_USN = "vc_usn";
    static final String VOTE_CASTED = "vote_casted";

    public DatabaseHelper(Context context)
    {
        super(context, DATABASE, null, DATABASE_VERSION);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        db.execSQL("CREATE TABLE "+ADMIN_TABLE+"(a_id INTEGER PRIMARY
KEY AUTOINCREMENT,username TEXT NOT NULL,a_password TEXT NOT NULL)");
        db.execSQL("CREATE TABLE "+VOTER_TABLE+"(v_id INTEGER PRIMARY
KEY AUTOINCREMENT,usn TEXT UNIQUE NOT NULL,v_password TEXT NOT
NULL,ph_no TEXT)");
        db.execSQL("CREATE TABLE "+VOTECASTED_TABLE+"(vc_id INTEGER
PRIMARY KEY AUTOINCREMENT,vc_usn TEXT UNIQUE NOT NULL,vote_casted TEXT
NOT NULL)");
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int
newVersion) {
        db.execSQL("DROP TABLE IF EXISTS "+ADMIN_TABLE);
        db.execSQL("DROP TABLE IF EXISTS "+VOTER_TABLE);
        db.execSQL("DROP TABLE IF EXISTS "+VOTECASTED_TABLE);
        onCreate(db);
    }
```

```
    public void insertData(String ADMIN, String admin)
    {
        SQLiteDatabase db=this.getWritableDatabase();
        long result;
        ContentValues values=new ContentValues();
        values.put(NAME,ADMIN);
        values.put(A_PASSWORD,admin);
        result=db.insert(ADMIN_TABLE,null,values);
    }
    public boolean searchadmin(String name, String pwd)
    {
        SQLiteDatabase db=this.getWritableDatabase();
        Cursor cursor=db.rawQuery("SELECT * FROM "+ADMIN_TABLE+" WHERE
username = '"+name+"'"+" AND a_password = '"+pwd+"'",null);
        if(cursor.moveToFirst())
            return true;
        else
            return false;
    }
    public boolean addVoter(String usn,String pwd)
    {
        SQLiteDatabase db=this.getWritableDatabase();
        long voter;
        ContentValues values=new ContentValues();
        values.put(USN,usn);
        values.put(V_PASSWORD,pwd);
        voter=db.insert(VOTER_TABLE,null,values);
        if(voter==-1)
            return false;
        else
            return true;
    }
    public boolean searchvoter(String usn,String pwd)
    {
        SQLiteDatabase db=this.getWritableDatabase();
        Cursor cursor=db.rawQuery("SELECT * FROM "+VOTER_TABLE+" WHERE
usn = '"+usn+"'"+" AND v_password = '"+pwd+"'",null);
        if(cursor.moveToFirst())
            return true;
        else
            return false;
    }
    public boolean addVoteCasted(String usn,String vote)
    {
        SQLiteDatabase db=this.getWritableDatabase();
        long vote_cast;
        ContentValues values=new ContentValues();
        values.put(VC_USN,usn);
        values.put(VOTE_CASTED,vote);
        vote_cast=db.insert(VOTECASTED_TABLE,null,values);
        if(vote_cast==-1)
            return false;
        else
            return true;
    }
    public ArrayList<String> voterlist()
    {
        String itemname = null;
        final ArrayList<String> list = new ArrayList<String>();
        SQLiteDatabase db=this.getWritableDatabase();
```

```
        Cursor cursor=db.rawQuery("SELECT vc_usn FROM
"+VOTECASTED_TABLE,null);
        cursor.moveToFirst();
        while (cursor.isAfterLast() != true) {
            itemname =
cursor.getString(cursor.getColumnIndex("vc_usn"));
            list.add(itemname);
            cursor.moveToNext();
        }
        return list;
    }
    public int viewResult(String vote)
    {
        int count=0;
        String itemname;
        SQLiteDatabase db=this.getWritableDatabase();
        Cursor cursor=db.rawQuery("SELECT vote_casted FROM
"+VOTECASTED_TABLE+" WHERE vote_casted = '"+vote+"'",null);
        cursor.moveToFirst();
        while (cursor.isAfterLast() != true) {
            itemname =
cursor.getString(cursor.getColumnIndex("vote_casted"));
            count++;
            cursor.moveToNext();
        }
        return count;
    }
    public String fetchpwd(String usn)
    {
        SQLiteDatabase db=this.getWritableDatabase();
        Cursor cursor=db.rawQuery("SELECT v_password FROM
"+VOTER_TABLE+" WHERE usn = '"+usn+"'",null);
        if(cursor.moveToFirst())
        {
            String pwd =
cursor.getString(cursor.getColumnIndex("v_password"));
            return pwd;
        }
        else
            return "None";
    }
    public boolean addphno(String usn,String phno)
    {
        SQLiteDatabase db=this.getWritableDatabase();
        db.execSQL("UPDATE "+VOTER_TABLE+" SET ph_no = "+"'"+phno+"'"+
"WHERE usn = "+"'"+usn+"'");
        return true;
    }
}
```

MainActivity.java

// To implement main screen

```
package com.example.onlinevotingapp;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
```

```
import android.widget.Button;

public class MainActivity extends AppCompatActivity {
    Button admin,voter;

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

        admin=(Button)findViewById(R.id.admin);
        voter=(Button)findViewById(R.id.voter);

        admin.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(MainActivity.this,AdminLogin.class));
                finish();
            }
        });

        voter.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(MainActivity.this,VoterLogin.class));
                finish();
            }
        });
    }
}
```

AdminLogin.java

// To implement admin login page

```
package com.example.onlinevotingapp;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class AdminLogin extends AppCompatActivity {
    Button adlogin,adcancel;
    EditText aduname,adpwd;
    DatabaseHelper mydb;
    boolean status;
    String ADMIN,admin;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_admin_login);
        mydb=new DatabaseHelper(this);
```

```
        adlogin=(Button)findViewById(R.id.adlogin);
        adcancel=(Button)findViewById(R.id.adcancel);
        aduname=(EditText)findViewById(R.id.aduname);
        adpwd=(EditText)findViewById(R.id.adpwd);
        ADMIN = "ADMIN";
        admin= "admin";
        mydb.insertData(ADMIN,admin);

        adlogin.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String username=aduname.getText().toString();
                String password=adpwd.getText().toString();
                boolean result;
                if(username.equals("") || password.equals(""))
                {
                    Toast.makeText(AdminLogin.this, "Please enter all
the details!!", Toast.LENGTH_SHORT).show();
                }
                else if(result=mydb.searchadmin(username,password)) {
                    startActivity(new
Intent(AdminLogin.this,AdminPage.class));
                    Toast.makeText(AdminLogin.this, "Admin Login
Successfull!!!", Toast.LENGTH_SHORT).show();
                }
                else
                    Toast.makeText(AdminLogin.this, "Invalid
Credentials!!!", Toast.LENGTH_SHORT).show();
            }
        });
        adcancel.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(AdminLogin.this,MainActivity.class));
                finish();
            }
        });
    }
}
```

VoterLogin.java

// To implement voter login page

```
package com.example.onlinevotingapp;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

import java.util.regex.Matcher;
import java.util.regex.Pattern;

public class VoterLogin extends AppCompatActivity {
    EditText usn,vopwd,phone;
```

```
    Button vologin,vocancel,forgot;
    DatabaseHelper mydb;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_voter_login);
        mydb=new DatabaseHelper(this);

        usn=(EditText)findViewById(R.id.usn);
        vopwd=(EditText)findViewById(R.id.vopwd);
        vologin=(Button)findViewById(R.id.vologin);
        vocancel=(Button)findViewById(R.id.vocancel);
        forgot=(Button)findViewById(R.id.forgot);
        phone=(EditText)findViewById(R.id.phone);

        vologin.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String vo_usn=usn.getText().toString();
                String vo_pwd=vopwd.getText().toString();
                String num=phone.getText().toString();
                boolean result;
                if(usn.equals("") || vo_pwd.equals("") ||
phone.equals(""))
                {
                    Toast.makeText(VoterLogin.this, "Please enter all
the details!!", Toast.LENGTH_SHORT).show();
                }
                else if (!isValidUSN(vo_usn)){
                    Toast.makeText(VoterLogin.this, "Invalid USN",
Toast.LENGTH_SHORT).show();
                }
                else if (phone.getText().length() < 10) {
                    Toast.makeText(getApplicationContext(),"Invalid
phone number!!",Toast.LENGTH_SHORT).show();
                }
                else if(result=mydb.searchvoter(vo_usn,vo_pwd)) {
                    boolean output=mydb.addphno(vo_usn,num);
                    if(output) {
                        Intent intent = new Intent(VoterLogin.this,
VoterPage.class);
                        intent.putExtra("vo_usn", vo_usn);
                        intent.putExtra("ph_no", num);
                        startActivity(intent);
                        Toast.makeText(VoterLogin.this, "Voter Login
Successfull!!!", Toast.LENGTH_SHORT).show();
                        finish();
                    }
                }
                else
                    Toast.makeText(VoterLogin.this, "Please make sure
your credentials are added by admin!!!", Toast.LENGTH_SHORT).show();
            }
        });
        forgot.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(VoterLogin.this,ForgotPassword.class));
```

```
                finish();
            }
        });
        vocancel.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(VoterLogin.this,MainActivity.class));
                finish();
            }
        });
    }
    public boolean isValidUSN(final String usn){
        Pattern pattern;
        Matcher matcher;
        String USN_PATTERN="^(4SO)[1-2][0-9](CS)[0-9]{3}$";
        pattern=Pattern.compile(USN_PATTERN);
        matcher=pattern.matcher(usn);
        return matcher.matches();
    }
}
```

ForgotPassword.java

// To implement password recovery page for the user

```
package com.example.onlinevotingapp;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.os.StrictMode;
import android.util.Patterns;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

import papaya.in.sendmail.SendMail;

public class ForgotPassword extends AppCompatActivity {
    EditText forgot_usn,email;
    Button send,vocancel;
    String msg;
    DatabaseHelper mydb;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_forgot_password);
        mydb=new DatabaseHelper(this);

        forgot_usn=(EditText)findViewById(R.id.forgot_usn);
        email=(EditText)findViewById(R.id.email);
        send=(Button)findViewById(R.id.send);
        vocancel=(Button)findViewById(R.id.vocancel);

        send.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
```

```
                String usn=forgot_usn.getText().toString();
                String fmail=email.getText().toString();
                String pwd=mydb.fetchpwd(usn);
                if(pwd=="None") {
                    msg="Hello Voter, Your details are not available.
Make sure you have the Right to Vote.";
                } else {
                    msg="Hey Voter, Kindly use this password to
login:"+pwd;
                }
                final String username="avoting19@gmail.com";
                final String password="admin@voting";
                if(usn.equals("") || fmail.equals(""))
                    Toast.makeText(ForgotPassword.this, "Please enter
all the details!!", Toast.LENGTH_SHORT).show();
                else if
(!Patterns.EMAIL_ADDRESS.matcher(email.getText().toString()).matches())
{
                    Toast.makeText(getApplicationContext(),"Invalid
Email!!",Toast.LENGTH_SHORT).show();
                }
                else {
                    SendMail mail = new SendMail(username, password,
email.getText().toString(), "Password Recovery", msg);
                    mail.execute();
                    Toast.makeText(ForgotPassword.this, "Successful..!!
Please wait for the email with your password.",
Toast.LENGTH_LONG).show();
                    startActivity(new Intent(ForgotPassword.this,
VoterLogin.class));
                    finish();
                }
            }
        });
        vocancel.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(ForgotPassword.this,VoterLogin.class));
                finish();
            }
        });
        StrictMode.ThreadPolicy policy=new
StrictMode.ThreadPolicy.Builder().permitAll().build();
        StrictMode.setThreadPolicy(policy);
    }
}
```

AdminPage.java

// To implement admin page

```
package com.example.onlinevotingapp;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
```

```
public class AdminPage extends AppCompatActivity {
    Button addvoter,ahome,voterlist,result;

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

        addvoter=(Button)findViewById(R.id.addvoter);
        voterlist=(Button)findViewById(R.id.voterlist);
        ahome=(Button)findViewById(R.id.ahome);
        result=(Button)findViewById(R.id.result);

        addvoter.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(AdminPage.this,AddVoter.class));
                finish();
            }
        });
        result.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(AdminPage.this,PieChart.class));
                finish();
            }
        });
        voterlist.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(AdminPage.this,VotersList.class));
                finish();
            }
        });
        ahome.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(AdminPage.this,MainActivity.class));
                finish();
            }
        });
    }
}
```

AddVoter.java

// To implement new voter registration by the admin

```
package com.example.onlinevotingapp;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
```

```
import android.widget.Toast;

import java.util.regex.Matcher;
import java.util.regex.Pattern;

public class AddVoter extends AppCompatActivity {
    EditText addusn,addpwd;
    Button add;
    DatabaseHelper mydb;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_add_voter);
        mydb=new DatabaseHelper(this);

        addusn=(EditText)findViewById(R.id.addusn);
        addpwd=(EditText)findViewById(R.id.addpwd);
        add=(Button)findViewById(R.id.add);

        add.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String usn=addusn.getText().toString();
                String pwd=addpwd.getText().toString();
                boolean status;
                if(usn.equals("") || pwd.equals(""))
                {
                    Toast.makeText(AddVoter.this, "Please enter all the
details!!", Toast.LENGTH_SHORT).show();
                }
                else if (!isValidUSN(usn)){
                    Toast.makeText(AddVoter.this, "Invalid USN",
Toast.LENGTH_SHORT).show();
                }
                else {
                    status = mydb.addVoter(addusn.getText().toString(),
addpwd.getText().toString());
                    if (status) {
                        Toast.makeText(AddVoter.this, "Voter Added",
Toast.LENGTH_SHORT).show();
                        addusn.setText("");
                        addpwd.setText("");
                        startActivity(new
Intent(AddVoter.this,AdminPage.class));
                        finish();
                    } else {
                        Toast.makeText(AddVoter.this, "Failed to add
Voter!!!", Toast.LENGTH_SHORT).show();
                    }
                }
            }
        });
    }
    public boolean isValidUSN(final String usn){
        Pattern pattern;
        Matcher matcher;
        String USN_PATTERN="^(4SO)[1-2][0-9](CS)[0-9]{3}$";
        pattern=Pattern.compile(USN_PATTERN);
        matcher=pattern.matcher(usn);
```

```
        return matcher.matches();
    }
}
```

VotersList.java

// To implement voters information list for the admin

```
package com.example.onlinevotingapp;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.ListView;

import java.util.ArrayList;
import java.util.HashMap;

public class VotersList extends AppCompatActivity {
    ListView voters;
    Button back;
    ArrayAdapter arrayAdapter;
    DatabaseHelper mydb;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_voters_list);
        mydb=new DatabaseHelper(this);

        voters=(ListView)findViewById(R.id.voters);
        back=(Button)findViewById(R.id.back);

        ArrayList<String> out=mydb.voterlist();
        arrayAdapter=new ArrayAdapter<String>(this,
android.R.layout.simple_list_item_1,out);
        voters.setAdapter(arrayAdapter);
        back.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(VotersList.this,AdminPage.class));
                finish();
            }
        });
    }
}
```

PieChart.java

// To implement result display based on total votes for the candidate using Pi chart

```
package com.example.onlinevotingapp;

import androidx.appcompat.app.AppCompatActivity;
```

```
import android.content.Intent;
import android.graphics.Color;
import java.util.ArrayList;
import java.util.List;
import lecho.lib.hellocharts.model.PieChartData;
import lecho.lib.hellocharts.model.SliceValue;
import lecho.lib.hellocharts.view.PieChartView;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;


public class PieChart extends AppCompatActivity {
    PieChartView pieChartView;
    Button back;
    String first="Kavana",second="Shrinidhi";
    DatabaseHelper mydb;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_pie_chart);
        mydb=new DatabaseHelper(this);

        pieChartView = findViewById(R.id.chart);
        back=(Button)findViewById(R.id.back);

        int icon1 = mydb.viewResult(first);
        int icon2 = mydb.viewResult(second);

        List pieData = new ArrayList<>();
        pieData.add(new SliceValue(icon1,
Color.RED).setLabel("Kavana:"+icon1));
        pieData.add(new SliceValue(icon2,
Color.GREEN).setLabel("Shrinidhi:"+icon2));

        PieChartData pieChartData = new PieChartData(pieData);
        pieChartData.setHasLabels(true).setValueLabelTextSize(14);
        pieChartData.setHasCenterCircle(true).setCenterText1("Vote
Result").setCenterText1FontSize(30).setCenterText1Color(Color.parseColo
r("#000000"));
        pieChartView.setPieChartData(pieChartData);
        back.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(PieChart.this,AdminPage.class));
                finish();
            }
        });
    }
}
```

VoterPage.java

// To implement voting page for the registered voters

```
package com.example.onlinevotingapp;

import androidx.appcompat.app.AppCompatActivity;
```

```
import androidx.core.app.ActivityCompat;

import android.Manifest;
import android.app.PendingIntent;
import android.content.Intent;
import android.content.pm.PackageManager;
import android.os.Bundle;
import android.telephony.SmsManager;
import android.view.View;
import android.widget.Button;
import android.widget.Toast;

public class VoterPage extends AppCompatActivity {
    Button first,second;
    DatabaseHelper mydb;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_voter_page);
        mydb=new DatabaseHelper(this);

        ActivityCompat.requestPermissions(VoterPage.this,new
String[]{Manifest.permission.SEND_SMS},
PackageManager.PERMISSION_GRANTED);

        first=(Button)findViewById(R.id.first);
        second=(Button)findViewById(R.id.second);
        Intent intent = getIntent();
        String str = intent.getStringExtra("vo_usn");
        String phone = intent.getStringExtra("ph_no");

        first.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String first_cand="Kavana";
                boolean status;
                status = mydb.addVoteCasted(str,first_cand);
                if(status)
                {
                    SmsManager sms=SmsManager.getDefault();
                    sms.sendTextMessage(phone, null, "Your Vote is
Recorded", null,null);
                    Toast.makeText(VoterPage.this, "Vote
Successfull!!!", Toast.LENGTH_SHORT).show();
                    startActivity(new
Intent(VoterPage.this,SuccessActivity.class));
                    finish();
                }
                else
                    Toast.makeText(VoterPage.this, "You can vote only
Once!!!", Toast.LENGTH_SHORT).show();
            }
        });
        second.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String second_cand="Shrinidhi";
                boolean status;
                status = mydb.addVoteCasted(str,second_cand);
```

```
                System.out.println("Status:"+status);
                if(status)
                {
                    SmsManager sms=SmsManager.getDefault();
                    sms.sendTextMessage(phone, null, "Your Vote is
Recorded", null,null);
                    Toast.makeText(VoterPage.this, "Vote
Successfull!!!", Toast.LENGTH_SHORT).show();
                    startActivity(new
Intent(VoterPage.this,SuccessActivity.class));
                    finish();
                }
                else
                    Toast.makeText(VoterPage.this, "You can vote only
Once!!!", Toast.LENGTH_SHORT).show();
            }
        });
    }
}
```

SuccessActivity.java

// To implement voting successful screen on successful voting

```
package com.example.onlinevotingapp;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

public class SuccessActivity extends AppCompatActivity {
    Button home;

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

        home=(Button)findViewById(R.id.home);

        home.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                startActivity(new
Intent(SuccessActivity.this,MainActivity.class));
                finish();
            }
        });
    }
}
```

CHAPTER 4 – SCREENSHOTS

Fig 4.1 Main Screen

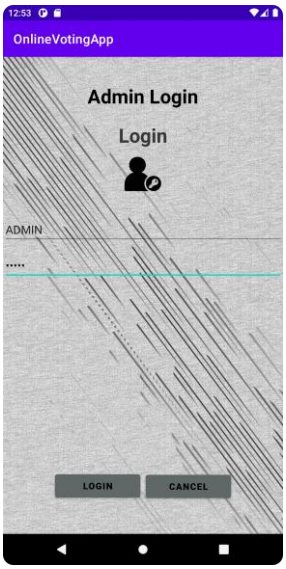

Fig 4.2: Admin Login

Fig 4.3: Voter Login

Fig 4.4: Password Recovery

Fig 4.5: Admin page

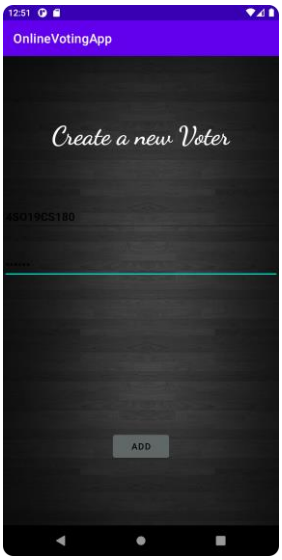

Fig 4.6: Add Voter

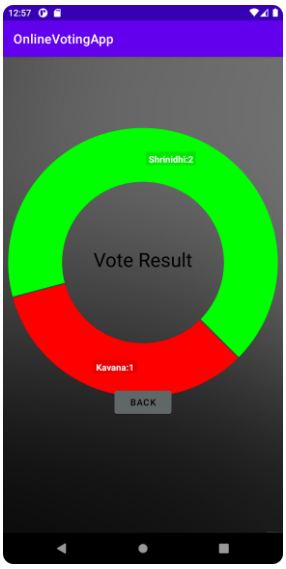

Fig 4.7: Result Display

Fig 4.8: Voters List

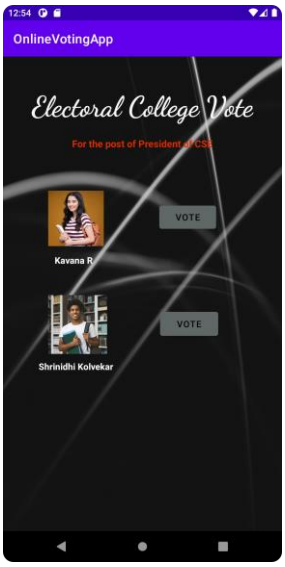

Fig 4.9: Voting Page

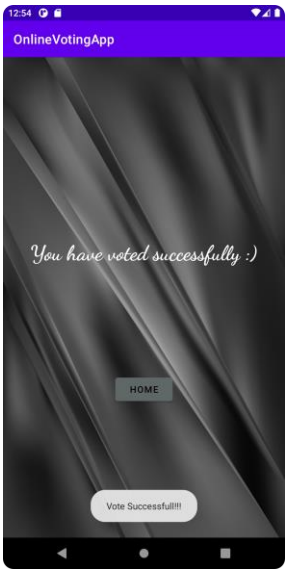

Fig 4.10: Successful Submission

CHAPTER 5 – CONCLUSION AND FUTURE WORK

The paper aimed to provide analysis of a simple voting application used in college level voting for president or any other roles in college community. Our empirical research found that additional development and updating of this application for more efficient workload will be fulfilled. The advantages of this voting application is to establish a simple and secure voting system for within a small community like schools or colleges to vote the candidates for appropriate position. So, we have planned to implement a simple voting system that is light weight and secure where only the registered voters can cast vote and not more than one vote per candidate is allowed. We also plan to add result feature where the voters will be notified with the results once the voting period is over.

REFERENCES

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2. Tutorials point (*https://www.tutorialspoint.com/android/android_sqlite_database/)*
3. GeeksForGeeks (*https://www.geeksforgeeks.org/)*
4. StackOverflow (*www.stackoverflow.com)*
5. YouTube (*https://www.youtube.com/)*
6. Google (*https://www.google.com/)*