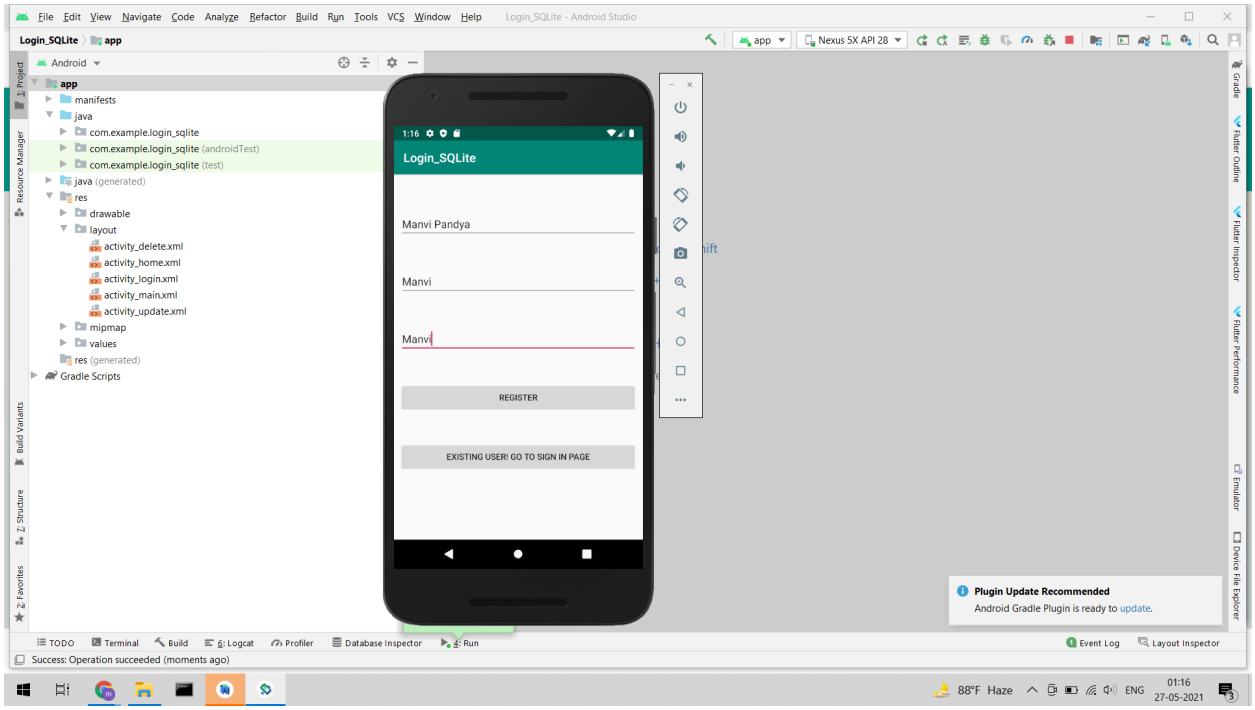
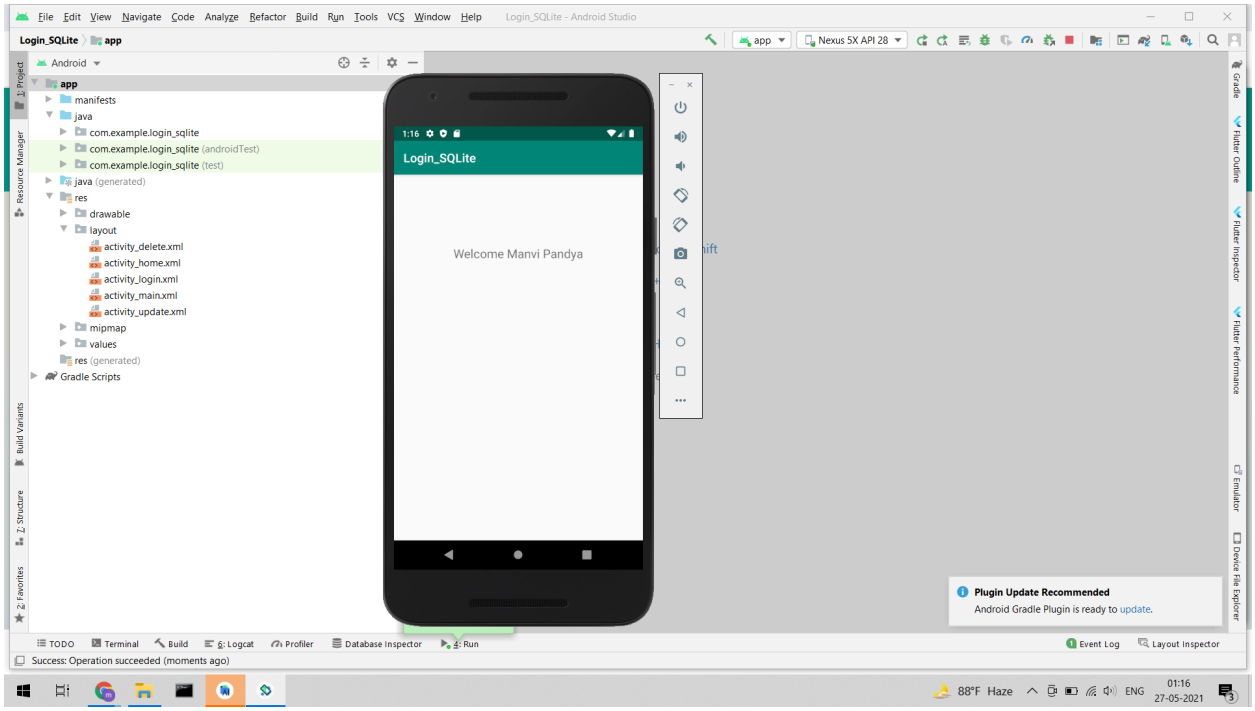
# Assignment-3

| | |
|---|---|
| Name | Manvi Pandya |
| Roll no. | 43233 |
| Aim | Android-database Connectivity: Create a SQLite Database for an Android Application and perform CRUD (Create, Read, Update and Delete) database operations. |

# Output


Login_SQLite - Android Studio
Login_SQLite
app
Nexus 5X API 28
Android
app
manifests
java
com.example.login_sqlite
com.example.login_sqlite (androidTest)
com.example.login_sqlite (test)
java (generated)
res
drawable
layout
activity_delete.xml
activity_home.xml
activity_login.xml
activity_main.xml
activity_update.xml
mipmap
values
res (generated)
Gradle Scripts
1:16
Login_SQLite
Manvi Pandya
Manvi
Manvi
REGISTER
EXISTING USER! GO TO SIGN IN PAGE
Plugin Update Recommended
Android Gradle Plugin is ready to update.
TODO
Terminal
Build
6: Logcat
Profiler
Database Inspector
4: Run
Event Log
Layout Inspector
Success: Operation succeeded (moments ago)
88°F Haze
ENG
01:16
27-05-2021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Login_SQLite
Welcome Manvi Pandya
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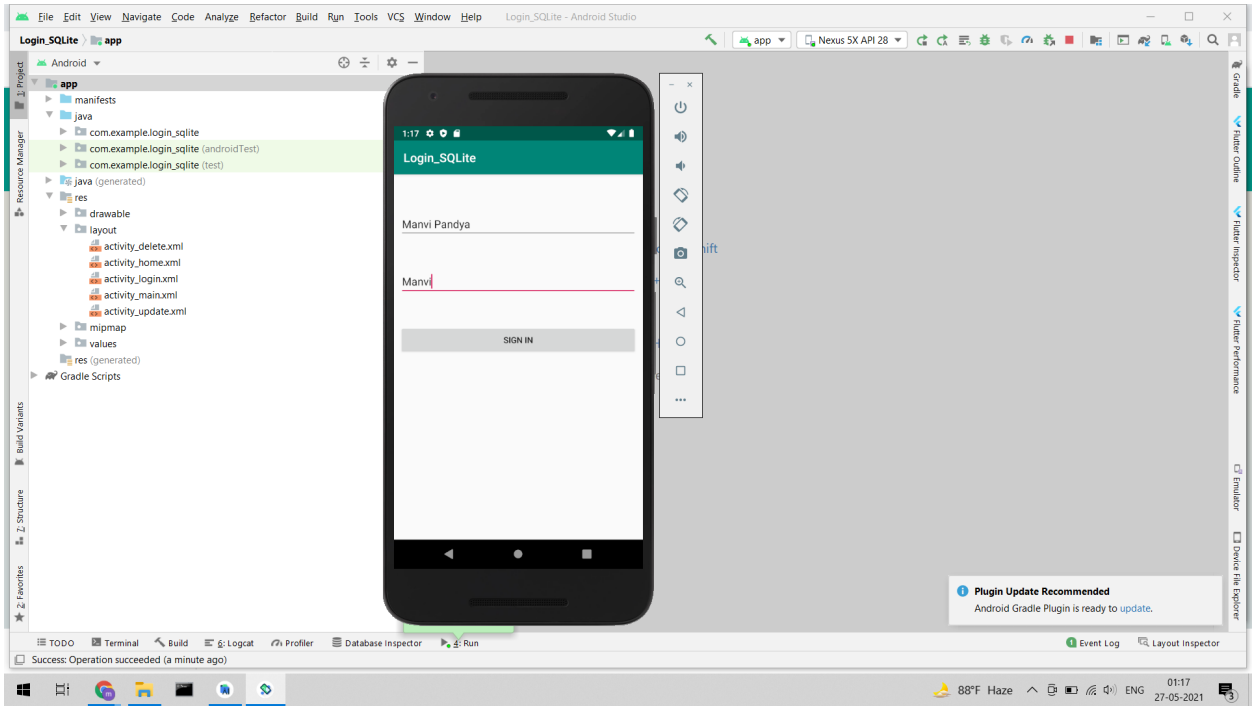


# Code

MainActivity.java

```
package com.example.login_sqlite;
import androidx.appcompat.app.AppCompatActivity;
import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

   EditText username, password, repassword;
   Button signup, signin;
   DBHelper DB;
   @Override
   protected void onCreate(Bundle savedInstanceState) {
       super.onCreate(savedInstanceState);
       setContentView(R.layout.activity_main);

       username = (EditText) findViewById(R.id.username);
       password = (EditText) findViewById(R.id.password);
       repassword = (EditText) findViewById(R.id.repassword);
       signup = (Button) findViewById(R.id.btnsignup);
       signin = (Button) findViewById(R.id.btnsignin);
```

```
        DB = new DBHelper(this);

        signup.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                String user = username.getText().toString();
                String pass = password.getText().toString();
                String repass = repassword.getText().toString();

                if(user.equals("")||pass.equals("")||repass.equals(""))
                    Toast.makeText(MainActivity.this, "Please enter all the
fields", Toast.LENGTH_SHORT).show();
                else{
                    if(pass.equals(repass)){
                        Boolean checkuser = DB.checkusername(user);
                      //  if(checkuser==false){
                             Log.d("Username", "onClick: username : "+username);
                            Boolean insert = DB.insertData(user, pass);
                            if(insert==true){
                                Toast.makeText(MainActivity.this, "Registered
successfully", Toast.LENGTH_SHORT).show();
                                Intent intent = new
Intent(getApplicationContext(),HomeActivity.class);
                                intent.putExtra("username",user);
                                startActivity(intent);
                            }else{
                                Toast.makeText(MainActivity.this, "Registration
failed", Toast.LENGTH_SHORT).show();
                            }
                        }
                        else{
                            Toast.makeText(MainActivity.this, "User already
exists! please sign in", Toast.LENGTH_SHORT).show();
                        }
                //    }
                 /*else{
                         Toast.makeText(MainActivity.this, "Passwords not
matching", Toast.LENGTH_SHORT).show();
                     }*/
                } }
        });

        signin.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent intent = new Intent(getApplicationContext(),
LoginActivity.class);
                startActivity(intent);
            }
```

```
        });
    }
}
```

---

LoginActivity.java

```
package com.example.login_sqlite;
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 LoginActivity extends AppCompatActivity {
    EditText username, password;
    Button btnlogin;
    DBHelper DB;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_login);

        username = (EditText) findViewById(R.id.username1);
        password = (EditText) findViewById(R.id.password1);
        btnlogin = (Button) findViewById(R.id.btnsignin1);
        DB = new DBHelper(this);

        btnlogin.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {

                String user = username.getText().toString();
                String pass = password.getText().toString();

                if(user.equals("")||pass.equals(""))
                    Toast.makeText(LoginActivity.this, "Please enter all the
fields", Toast.LENGTH_SHORT).show();
                else{
                    Boolean checkuserpass = DB.checkusernamepassword(user,
pass);
                    if(checkuserpass==true){
                        Toast.makeText(LoginActivity.this, "Sign in
successfull", Toast.LENGTH_SHORT).show();
```

```
                        Intent intent  = new Intent(getApplicationContext(),
HomeActivity.class);
                        intent.putExtra("username", user);
                        startActivity(intent);
                    }else{
                        Toast.makeText(LoginActivity.this, "Invalid
Credentials", Toast.LENGTH_SHORT).show();
                    }
                }
            }
        });
    }
}
```

---

HomeActivity.java

```
package com.example.login_sqlite;

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.TextView;

import com.example.login_sqlite.DBHelper;

public class HomeActivity extends AppCompatActivity {

    Button update,delete;
    TextView welcome;
    String username;
    DBHelper DB;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_home);

        update=(Button)findViewById(R.id.btn_update);
        delete=(Button)findViewById(R.id.btn_delete);
        welcome = (TextView)findViewById(R.id.txt_welcome);
        update.setVisibility(View.GONE);
        delete.setVisibility(View.GONE);

        Bundle extras = getIntent().getExtras();
```

```
        if (extras != null) {
            username = extras.getString("username");
            welcome.setText("Welcome "+username);
            if(username.equals("admin"))
            {
                update.setVisibility(View.VISIBLE);
                delete.setVisibility(View.VISIBLE);
                welcome.setText("Welcome Admin");
            }
        }

        delete.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent intent = new
Intent(getApplicationContext(),DeleteActivity.class);
                startActivity(intent);
            }
        });

        update.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent intent = new
Intent(getApplicationContext(),UpdateActivity.class);
                startActivity(intent);
            }
        });

    }
}
```

---

DeleteActivity.java

```
package com.example.login_sqlite;


import androidx.appcompat.app.AppCompatActivity;

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

```
import android.widget.EditText;
import android.widget.Toast;

public class DeleteActivity extends AppCompatActivity {

        EditText username;
        Button delete,logout;
        DBHelper DB;

        @Override
        public boolean onCreateOptionsMenu(Menu menu) {

        MenuInflater inflater = getMenuInflater();
        inflater.inflate(R.menu.menu, menu);
        menu.findItem(R.id.deletemenu).setVisible(false);
        return true;

        }


        public boolean onOptionsItemSelected(MenuItem item) {

        switch (item.getItemId()) {
        case R.id.updatemenu:
                Intent intent = new Intent(getApplicationContext(),UpdateActivity.class);
                startActivity(intent);
                return true;

        case R.id.deletemenu:
                Intent intent1 = new Intent(getApplicationContext(),DeleteActivity.class);
                startActivity(intent1);
                return true;
        case R.id.logout:

                Intent intent2=new Intent(getApplicationContext(),LoginActivity.class);
                startActivity(intent2);
                finish();
                return true;
        default:
                return super.onOptionsItemSelected(item);
        }
        }

        @Override
```

```
        protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_delete);

        username=(EditText)findViewById(R.id.txt_username);
        delete=(Button)findViewById(R.id.btn_delete);
        DB = new DBHelper(this);

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

                String user = username.getText().toString();
                if(!user.equals("admin"))
                {
                Boolean deleteuser = DB.deleteData(user);

                if (deleteuser == true) {
                Toast.makeText(DeleteActivity.this, "Deleted successfully",
Toast.LENGTH_SHORT).show();
                Intent intent = new Intent(getApplicationContext(),DeleteActivity.class);
                startActivity(intent);

                } else {
                Toast.makeText(DeleteActivity.this, "No user found",
Toast.LENGTH_SHORT).show();
                }

                }
                else
                {
                Toast.makeText(DeleteActivity.this, "Cannot delete admin",
Toast.LENGTH_SHORT).show();
                }
        }

        });

        }
}
```

---

UpdateActivity.java

```
package com.example.login_sqlite;

import androidx.appcompat.app.AppCompatActivity;

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

public class UpdateActivity extends AppCompatActivity {

	EditText username,updated_password;
	Button search,update,logout;
	DBHelper DB;

	@Override
	public boolean onCreateOptionsMenu(Menu menu) {

	MenuInflater inflater = getMenuInflater();
	inflater.inflate(R.menu.menu, menu);
	menu.findItem(R.id.updatemenu).setVisible(false);
	return true;

	}


	public boolean onOptionsItemSelected(MenuItem item) {

	switch (item.getItemId()) {
	case R.id.updatemenu:
		Intent intent = new Intent(getApplicationContext(),UpdateActivity.class);
		startActivity(intent);
		return true;

	case R.id.deletemenu:
		Intent intent1 = new Intent(getApplicationContext(),DeleteActivity.class);
		startActivity(intent1);
		return true;
	case R.id.logout:
```

```
                Intent intent2=new Intent(getApplicationContext(),LoginActivity.class);
                startActivity(intent2);
                finish();
                return true;
        default:
                return super.onOptionsItemSelected(item);
        }
        }
        @Override
        protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_update);

        username=(EditText)findViewById(R.id.txt_username);
        search=(Button)findViewById(R.id.btn_search);
        update=(Button)findViewById(R.id.btn_update);
        updated_password=(EditText)findViewById(R.id.txt_password);
        DB = new DBHelper(this);


        update.setVisibility(View.GONE);
        updated_password.setVisibility(View.GONE);
        search.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
                if(DB.checkusername(username.getText().toString()))
                {
                Toast.makeText(UpdateActivity.this, "User Found",
Toast.LENGTH_SHORT).show();
                update.setVisibility(View.VISIBLE);
                updated_password.setVisibility(View.VISIBLE);

                update.setOnClickListener(new View.OnClickListener() {
                @Override
                public void onClick(View v) {
                        String password=updated_password.getText().toString();
                        if(DB.updateData(username.getText().toString(),password))
                        {
                        Toast.makeText(UpdateActivity.this, "Updated Succesfully",
Toast.LENGTH_SHORT).show();
                        Intent intent=new Intent(getApplicationContext(),UpdateActivity.class);
                        startActivity(intent);
                        }
```

```
                        else
                        {
                        Toast.makeText(UpdateActivity.this, "Could not update user",
Toast.LENGTH_SHORT).show();
                        Intent intent=new Intent(getApplicationContext(),UpdateActivity.class);
                        startActivity(intent);
                        }
                }
                });

                }
                else
                {
                Toast.makeText(UpdateActivity.this, "No User Found",
Toast.LENGTH_SHORT).show();
                }
        }
        });



        }
}
```

---

DBHelper.java

```
package com.example.login_sqlite;
import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
import android.widget.SimpleCursorAdapter;
import android.widget.Toast;

import androidx.annotation.Nullable;

public class DBHelper extends SQLiteOpenHelper {
        public static final String DBNAME = "Login.db";
        public DBHelper(Context context) {
        super(context, "Login.db", null, 1);
        }
```

```
        @Override
        public void onCreate(SQLiteDatabase MyDB) {
        MyDB.execSQL("create Table users(username TEXT primary key, password TEXT)");
        }

        @Override
        public void onUpgrade(SQLiteDatabase MyDB, int i, int i1) {
        MyDB.execSQL("drop Table if exists users");
        }

        public Boolean insertData(String username, String password){
        SQLiteDatabase MyDB = this.getWritableDatabase();
        ContentValues contentValues= new ContentValues();
        contentValues.put("username", username);
        contentValues.put("password", password);
        long result = MyDB.insert("users", null, contentValues);
        if(result==-1) return false;
        else
        return true;
        }

        public Boolean checkusername(String username) {
        SQLiteDatabase MyDB = this.getWritableDatabase();
        Cursor cursor = MyDB.rawQuery("Select * from users where username = ?", new
String[]{username});
        if (cursor.getCount() > 0)
        return true;
        else
        return false;
        }

        public Boolean checkusernamepassword(String username, String password){
        SQLiteDatabase MyDB = this.getWritableDatabase();
        Cursor cursor = MyDB.rawQuery("Select * from users where username = ? and
password = ?", new String[] {username,password});
        if(cursor.getCount()>0)
        return true;
        else
        return false;
        }


        public Boolean deleteData(String username)
        {
```

```
        SQLiteDatabase MyDB = this.getWritableDatabase();

        if (checkusername(username)) {
        //Log.d("myTag", "hey : "+username);
        long result = MyDB.delete("users", "username=?", new
String[]{String.valueOf(username)});
        if (result == -1) {
                return false;
        } else {
                return true;
        }
        } else{
        return false;
        }
        }

        public Boolean updateData(String username , String password)
        {
        SQLiteDatabase MyDB = this.getWritableDatabase();
        ContentValues contentValues = new ContentValues();
        contentValues.put("password", password);
        long result = MyDB.update("users", contentValues, "username=?", new
String[]{username});
        if (result == -1) {
        return false;
        } else {
        return true;
        }
        }


        public Cursor viewData(){
        SQLiteDatabase db=this.getReadableDatabase();
        String query = "Select * from users";
        Cursor cursor = db.rawQuery(query,null);
        return cursor;
        }

}
```

---

ListUsers.java

```
package com.example.login_sqlite;
```

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

import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
import android.os.Bundle;
import android.view.View;
import android.widget.AdapterView;
import android.widget.ArrayAdapter;
import android.widget.Button;
import android.widget.EditText;
import android.widget.ListView;
import android.widget.Toast;

import java.util.ArrayList;

public class ListUsers extends AppCompatActivity {

        ArrayList<String> listItem;
        ArrayAdapter adapter;

        private DBHelper db;

        Button add_data;
        EditText add_name;

        ListView userlist;

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

        db = new DBHelper(this);

        listItem = new ArrayList<>();
        userlist = findViewById(R.id.users_list);

        viewData();

        userlist.setOnItemClickListener(new AdapterView.OnItemClickListener() {
        @Override
        public void onItemClick(AdapterView<?> parent, View view, int i, long l) {
```

```
                String text = userlist.getItemAtPosition(i).toString();
                Toast.makeText(ListUsers.this , ""+text,Toast.LENGTH_SHORT).show();
        }
        });




        }

        private void viewData(){
        Cursor cursor = db.viewData();
        if(cursor.getCount() == 0){
        Toast.makeText(this, "No data to show", Toast.LENGTH_SHORT).show();
        }else{
        while(cursor.moveToNext()){
                listItem.add(cursor.getString(0));
        }
        adapter = new ArrayAdapter(this, android.R.layout.simple_list_item_1,listItem);
        userlist.setAdapter(adapter);
        }
        }
}
```

---

Activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
   xmlns:app="http://schemas.android.com/apk/res-auto"
   xmlns:tools="http://schemas.android.com/tools"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   android:padding="10dp"
   tools:context=".MainActivity">

   <EditText
       android:id="@+id/username"
       android:layout_width="match_parent"
       android:layout_height="wrap_content"
       android:hint="User Name"
       android:layout_marginTop="50dp"/>

   <EditText
       android:id="@+id/password"
       android:layout_width="match_parent"
```

```
        android:layout_height="wrap_content"
        android:hint="Password"
        android:layout_marginTop="50dp"
        android:layout_below="@+id/username"/>

    <EditText
        android:id="@+id/repassword"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Retype Password"
        android:layout_marginTop="50dp"
        android:layout_below="@+id/password"/>

    <Button
        android:id="@+id/btnsignup"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Register"
        android:layout_marginTop="50dp"
        android:layout_below="@+id/repassword"/>

    <Button
        android:id="@+id/btnsignin"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Existing user! Go to Sign in page"
        android:layout_marginTop="50dp"
        android:layout_below="@+id/btnsignup"/>

</RelativeLayout>
```

---

Activity_login.xml

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:padding="10dp"
    tools:context=".LoginActivity">

    <EditText
        android:id="@+id/username1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="User Name"
```

```
        android:layout_marginTop="50dp"/>

    <EditText
        android:id="@+id/password1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:hint="Password"
        android:layout_marginTop="50dp"
        android:layout_below="@+id/username1"/>

    <Button
        android:id="@+id/btnsignin1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Sign in"
        android:layout_marginTop="50dp"
        android:layout_below="@+id/password1"/>
</RelativeLayout>
```