

ASSIGNMENT-DYNAMIC APPLICATION

MainActivity.java

```
package com.example.sample;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    EditText fullName, email, phone, password;
    RadioGroup genderGroup;
    Button registerBtn, loginBtn;
    DatabaseHelper dbHelper;

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

        fullName = findViewById(R.id.fullName);
        email = findViewById(R.id.email);
        phone = findViewById(R.id.phone);
        password = findViewById(R.id.password);
        genderGroup = findViewById(R.id.genderGroup);
        registerBtn = findViewById(R.id.registerBtn);
        loginBtn = findViewById(R.id.loginBtn);
        dbHelper = new DatabaseHelper(this);

        // Register button
        registerBtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                String name = fullName.getText().toString();
                String userEmail = email.getText().toString();
                String userPhone = phone.getText().toString();
            }
        });
    }
}
```

```

String userPass = password.getText().toString();

// Get selected gender
String gender = "";
int selectedId = genderGroup.getCheckedRadioButtonId();
if(selectedId != -1) {
    RadioButton radioButton = findViewById(selectedId);
    gender = radioButton.getText().toString();
}

if(name.isEmpty() || userEmail.isEmpty() ||
    userPhone.isEmpty() || userPass.isEmpty() || gender.isEmpty()) {
    Toast.makeText(MainActivity.this,
        "Please fill all fields", Toast.LENGTH_SHORT).show();
} else {
    // Save to database
    long result = dbHelper.addUser(name, userEmail, userPhone, userPass,
        gender);

    if(result != -1) {
        Toast.makeText(MainActivity.this,
            "Registration Successful!", Toast.LENGTH_SHORT).show();

        Intent intent = new Intent(MainActivity.this, MainActivity2.class);
        intent.putExtra("email", userEmail);
        startActivity(intent);
    } else {
        Toast.makeText(MainActivity.this,
            "Registration Failed! Email might already exist.",
        Toast.LENGTH_SHORT).show();
    }
}
});

// Login button
loginBtn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent intent = new Intent(MainActivity.this, MainActivity2.class);
        startActivity(intent);
    }
});
}

```

```
@Override  
protected void onDestroy() {  
    dbHelper.close();  
    super.onDestroy();  
}  
}
```

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>  
<ScrollView xmlns:android="http://schemas.android.com/apk/res/android"  
    android:layout_width="match_parent"  
    android:layout_height="match_parent">  
  
    <LinearLayout  
        android:layout_width="match_parent"  
        android:layout_height="wrap_content"  
        android:orientation="vertical"  
        android:padding="20dp">  
  
        <TextView  
            android:layout_width="wrap_content"  
            android:layout_height="wrap_content"  
            android:text="Register Account"  
            android:textSize="24sp"  
            android:textStyle="bold"  
            android:layout_marginBottom="30dp"/>  
  
        <EditText  
            android:id="@+id/fullName"  
            android:layout_width="match_parent"  
            android:layout_height="50dp"  
            android:hint="Full Name"  
            android:padding="10dp"  
            android:layout_marginBottom="15dp"/>  
  
        <EditText  
            android:id="@+id/email"  
            android:layout_width="match_parent"  
            android:layout_height="50dp"  
            android:hint="Email Address"  
            android:inputType="textEmailAddress"
```

```
    android:padding="10dp"
    android:layout_marginBottom="15dp"/>

<EditText
    android:id="@+id/phone"
    android:layout_width="match_parent"
    android:layout_height="50dp"
    android:hint="Phone Number"
    android:inputType="phone"
    android:padding="10dp"
    android:layout_marginBottom="15dp"/>

<EditText
    android:id="@+id/password"
    android:layout_width="match_parent"
    android:layout_height="50dp"
    android:hint="Password"
    android:inputType="textPassword"
    android:padding="10dp"
    android:layout_marginBottom="20dp"/>

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Gender"
    android:layout_marginBottom="10dp"/>

<RadioGroup
    android:id="@+id/genderGroup"
    android:layout_width="match_parent"
    android:layout_height="wrap_content"
    android:orientation="horizontal"
    android:layout_marginBottom="20dp">

    <RadioButton
        android:id="@+id/male"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Male"
        android:layout_marginEnd="20dp"/>

    <RadioButton
        android:id="@+id/female"
        android:layout_width="wrap_content"
```

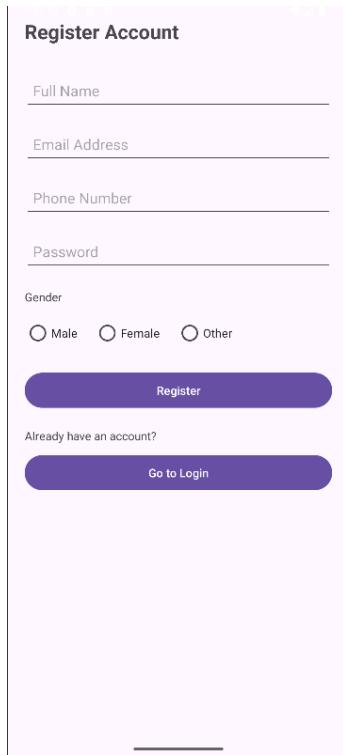
```
        android:layout_height="wrap_content"
        android:text="Female"
        android:layout_marginEnd="20dp"/>

    <RadioButton
        android:id="@+id/other"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Other"/>
</RadioGroup>

<Button
    android:id="@+id/registerBtn"
    android:layout_width="match_parent"
    android:layout_height="50dp"
    android:text="Register"
    android:layout_marginBottom="20dp"/>

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Already have an account?"
    android:layout_marginBottom="10dp"/>

    <Button
        android:id="@+id/loginBtn"
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:text="Go to Login"/>
</LinearLayout>
</ScrollView>
```



MainActivity2.java

```
package com.example.sample;

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 androidx.appcompat.app.AppCompatActivity;

public class MainActivity2 extends AppCompatActivity {

    EditText email, password;
    Button loginBtn, registerBtn;
    DatabaseHelper dbHelper;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);

        email = findViewById(R.id.email);
```

```

password = findViewById(R.id.password);
loginBtn = findViewById(R.id.loginBtn);
registerBtn = findViewById(R.id.registerBtn);
dbHelper = new DatabaseHelper(this);

// Check if data was passed from Register
Intent intent = getIntent();
if(intent.hasExtra("email")) {
    String userEmail = intent.getStringExtra("email");
    email.setText(userEmail);
}

// Login button
loginBtn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        String userEmail = email.getText().toString();
        String userPass = password.getText().toString();

        if(userEmail.isEmpty() || userPass.isEmpty()) {
            Toast.makeText(MainActivity2.this,
                "Please fill all fields", Toast.LENGTH_SHORT).show();
        } else {
            // Check credentials in database
            boolean isValid = dbHelper.checkUser(userEmail, userPass);

            if(isValid) {
                Intent intent = new Intent(MainActivity2.this, MainActivity3.class);
                intent.putExtra("email", userEmail);
                startActivity(intent);
            } else {
                Toast.makeText(MainActivity2.this,
                    "Invalid email or password", Toast.LENGTH_SHORT).show();
            }
        }
    }
});

// Register button
registerBtn.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Intent intent = new Intent(MainActivity2.this, MainActivity.class);
        startActivity(intent);
    }
});

```

```
        }
    });
}

@Override
protected void onDestroy() {
    dbHelper.close();
    super.onDestroy();
}
}
```

activity_main2.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:orientation="vertical"
    android:padding="20dp"
    android:gravity="center">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Login"
        android:textSize="30sp"
        android:textStyle="bold"
        android:layout_marginBottom="50dp"/>

    <EditText
        android:id="@+id/email"
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:hint="Email"
        android:padding="10dp"
        android:layout_marginBottom="20dp"/>

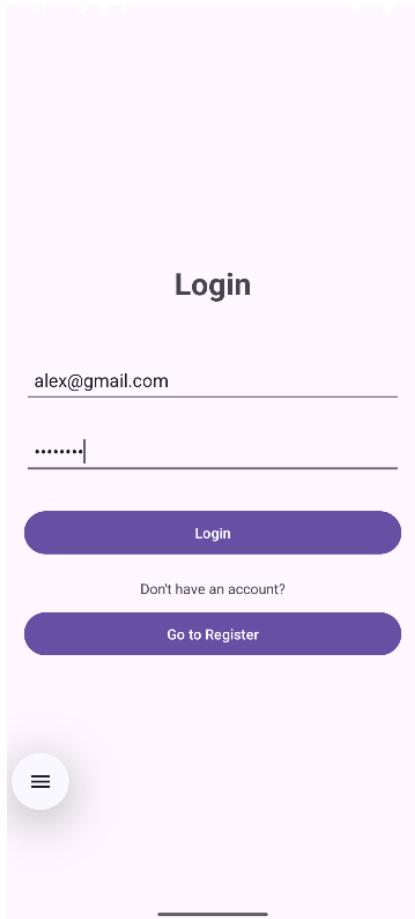
    <EditText
        android:id="@+id/password"
        android:layout_width="match_parent"
        android:layout_height="50dp"
        android:hint="Password"
        android:inputType="textPassword"
```

```
        android:padding="10dp"
        android:layout_marginBottom="30dp"/>

<Button
    android:id="@+id/loginBtn"
    android:layout_width="match_parent"
    android:layout_height="50dp"
    android:text="Login"
    android:layout_marginBottom="20dp"/>

<TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Don't have an account?"
    android:layout_marginBottom="10dp"/>

<Button
    android:id="@+id/registerBtn"
    android:layout_width="match_parent"
    android:layout_height="50dp"
    android:text="Go to Register"/></LinearLayout>
```



ActivityMain3.java

```
package com.example.sample;

import android.app.AlertDialog;
import android.content.DialogInterface;
import android.content.Intent;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.LinearLayout;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;
import android.widget.Toast;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity3 extends AppCompatActivity {

    TextView welcomeText, nameText, emailText, phoneText, genderText;
    Button logoutBtn, updateBtn, deleteBtn;
    DatabaseHelper dbHelper;
    String currentEmail;
    String currentName;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main3);

        // Initialize all views
        welcomeText = findViewById(R.id.welcomeText);
        nameText = findViewById(R.id.nameText);
        emailText = findViewById(R.id.emailText);
        phoneText = findViewById(R.id.phoneText);
        genderText = findViewById(R.id.genderText); // Make sure this exists in XML
        logoutBtn = findViewById(R.id.logoutBtn);
        updateBtn = findViewById(R.id.updateBtn); // Make sure this exists in XML
        deleteBtn = findViewById(R.id.deleteBtn); // Make sure this exists in XML

        dbHelper = new DatabaseHelper(this);
    }
}
```

```

// Get email from intent
Intent intent = getIntent();
if(intent.getStringExtra("email") != null) {
    currentUserEmail = intent.getStringExtra("email");
    loadUserData(currentUserEmail);
}

// Update button - make sure button exists before setting listener
if(updateBtn != null) {
    updateBtn.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            showUpdateDialog();
        }
    });
}

// Delete button - make sure button exists before setting listener
if(deleteBtn != null) {
    deleteBtn.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            showDeleteConfirmation();
        }
    });
}

// Logout button
if(logoutBtn != null) {
    logoutBtn.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            Intent intent = new Intent(MainActivity3.this, MainActivity2.class);
            startActivity(intent);
            finish();
        }
    });
}

private void loadUserData(String email) {
    Cursor cursor = dbHelper.getUserByEmail(email);
    if(cursor != null && cursor.moveToFirst()) {
        currentName =

```

```
cursor.getString(cursor.getColumnIndexOrThrow(DatabaseHelper.COLUMN_NAME));
    String phone =
cursor.getString(cursor.getColumnIndexOrThrow(DatabaseHelper.COLUMN_PHONE));
    String gender =
cursor.getString(cursor.getColumnIndexOrThrow(DatabaseHelper.COLUMN_GENDER))
;

if(welcomeText != null) {
    welcomeText.setText("Welcome, " + currentName + "!");
}
if(nameText != null) {
    nameText.setText("Name: " + currentName);
}
if(emailText != null) {
    emailText.setText("Email: " + email);
}
if(phoneText != null) {
    phoneText.setText("Phone: " + phone);
}
if(genderText != null) {
    genderText.setText("Gender: " + gender);
}

cursor.close();
}

}

private void showUpdateDialog() {
    AlertDialog.Builder builder = new AlertDialog.Builder(this);
    builder.setTitle("Update Profile");

    // Create layout programmatically
    LinearLayout layout = new LinearLayout(this);
    layout.setOrientation(LinearLayout.VERTICAL);
    layout.setPadding(50, 20, 50, 20);

    // Create EditText for Name
    final EditText nameInput = new EditText(this);
    nameInput.setHint("Full Name");
    nameInput.setText(currentName);
    nameInput.setPadding(20, 20, 20, 20);
    layout.addView(nameInput);

    // Create EditText for Phone
```

```
final EditText phoneInput = new EditText(this);
phoneInput.setHint("Phone Number");
if(phoneText != null) {
    phoneInput.setText(phoneText.getText().toString().replace("Phone: ", ""));
}
phoneInput.setPadding(20, 20, 20, 20);
layout.addView(phoneInput);

// Create TextView for Gender label
TextView genderLabel = new TextView(this);
genderLabel.setText("Gender");
genderLabel.setPadding(20, 20, 20, 10);
layout.addView(genderLabel);

// Create RadioGroup for Gender
final RadioGroup genderGroup = new RadioGroup(this);
genderGroup.setOrientation(LinearLayout.HORIZONTAL);
genderGroup.setPadding(20, 10, 20, 20);

// Create RadioButtons
RadioButton maleBtn = new RadioButton(this);
maleBtn.setText("Male");
maleBtn.setId(View.generateViewId());

RadioButton femaleBtn = new RadioButton(this);
femaleBtn.setText("Female");
femaleBtn.setId(View.generateViewId());

RadioButton otherBtn = new RadioButton(this);
otherBtn.setText("Other");
otherBtn.setId(View.generateViewId());

// Add RadioButtons to RadioGroup
genderGroup.addView(maleBtn);
genderGroup.addView(femaleBtn);
genderGroup.addView(otherBtn);

// Set current gender selection
String currentGender = "";
if(genderText != null) {
    currentGender = genderText.getText().toString().replace("Gender: ", "");
}
if(currentGender.equals("Male")) {
    maleBtn.setChecked(true);
```

```

} else if(currentGender.equals("Female")) {
    femaleBtn.setChecked(true);
} else if(currentGender.equals("Other")) {
    otherBtn.setChecked(true);
}

layout.addView(genderGroup);
builder.setView(layout);

// Set buttons
builder.setPositiveButton("Update", new DialogInterface.OnClickListener() {
    @Override
    public void onClick(DialogInterface dialog, int which) {
        String newName = nameInput.getText().toString();
        String newPhone = phoneInput.getText().toString();

        // Get selected gender
        String newGender = "";
        int selectedId = genderGroup.getCheckedRadioButtonId();
        if(selectedId != -1) {
            RadioButton selectedRadio = genderGroup.findViewById(selectedId);
            newGender = selectedRadio.getText().toString();
        }

        if(newName.isEmpty() || newPhone.isEmpty() || newGender.isEmpty()) {
            Toast.makeText(MainActivity3.this,
                "All fields are required", Toast.LENGTH_SHORT).show();
        } else {
            // Update in database
            boolean isUpdated = dbHelper.updateUser(currentEmail, newName,
newPhone, newGender);
            if(isUpdated) {
                Toast.makeText(MainActivity3.this,
                    "Profile updated successfully!", Toast.LENGTH_SHORT).show();
                currentName = newName;
                loadUserData(currentEmail); // Refresh data
            } else {
                Toast.makeText(MainActivity3.this,
                    "Update failed!", Toast.LENGTH_SHORT).show();
            }
        }
    }
});

```

```

builder.setNegativeButton("Cancel", new DialogInterface.OnClickListener() {
    @Override
    public void onClick(DialogInterface dialog, int which) {
        dialog.dismiss();
    }
});

AlertDialog dialog = builder.create();
dialog.show();
}

private void showDeleteConfirmation() {
    new AlertDialog.Builder(this)
        .setTitle("Delete Account")
        .setMessage("Are you sure you want to delete " + currentName + "'s account?
This action cannot be undone.")
        .setPositiveButton("Delete", new DialogInterface.OnClickListener() {
            @Override
            public void onClick(DialogInterface dialog, int which) {
                // Delete from database
                boolean isDeleted = dbHelper.deleteUser(currentEmail);
                if(isDeleted) {
                    Toast.makeText(MainActivity3.this,
                        currentName + "'s account deleted successfully!",
                    Toast.LENGTH_LONG).show();

                    // Go to login page
                    Intent intent = new Intent(MainActivity3.this, MainActivity2.class);
                    startActivity(intent);
                    finish();
                } else {
                    Toast.makeText(MainActivity3.this,
                        "Delete failed!", Toast.LENGTH_SHORT).show();
                }
            }
        })
        .setNegativeButton("Cancel", null)
        .show();
}

@Override
protected void onDestroy() {
    dbHelper.close();
    super.onDestroy();
}

```

```
    }  
}
```

main_activity3.xml

```
<?xml version="1.0" encoding="utf-8"?>  
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"  
    android:layout_width="match_parent"  
    android:layout_height="match_parent"  
    android:orientation="vertical"  
    android:padding="20dp">  
  
    <TextView  
        android:id="@+id/welcomeText"  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:text="Welcome to Home!"  
        android:textSize="24sp"  
        android:textStyle="bold"  
        android:layout_marginBottom="40dp"/>  
  
    <TextView  
        android:layout_width="wrap_content"  
        android:layout_height="wrap_content"  
        android:text="User Information:"  
        android:textSize="18sp"  
        android:layout_marginBottom="20dp"/>  
  
    <LinearLayout  
        android:layout_width="match_parent"  
        android:layout_height="wrap_content"  
        android:orientation="vertical"  
        android:background="#f0f0f0"  
        android:padding="15dp"  
        android:layout_marginBottom="30dp">  
  
        <TextView  
            android:id="@+id/nameText"  
            android:layout_width="wrap_content"  
            android:layout_height="wrap_content"  
            android:text="Name: "  
            android:layout_marginBottom="10dp"/>
```

```
<TextView
    android:id="@+id/emailText"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Email: "
    android:layout_marginBottom="10dp"/>

<TextView
    android:id="@+id/phoneText"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Phone: "
    android:layout_marginBottom="10dp"/>

<!-- Add this TextView for Gender -->
<TextView
    android:id="@+id/genderText"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Gender: "/>
</LinearLayout>

<!-- Add these buttons for UPDATE and DELETE -->
<Button
    android:id="@+id/updateBtn"
    android:layout_width="match_parent"
    android:layout_height="50dp"
    android:text="UPDATE"
    android:layout_marginBottom="15dp"/>

<Button
    android:id="@+id/deleteBtn"
    android:layout_width="match_parent"
    android:layout_height="50dp"
    android:text="DELETE"
    android:layout_marginBottom="15dp"/>

<Button
    android:id="@+id/logoutBtn"
    android:layout_width="match_parent"
    android:layout_height="50dp"
    android:text="Logout"/>
</LinearLayout>
```

Welcome, alex saimy abraham!

User Information:

Name: alex saimy abraham

Email: alex@gmail.com

Phone: 8848883645

Gender: Male

UPDATE

DELETE

Logout

DatabaseHelper.java

```
package com.example.sample;

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

public class DatabaseHelper extends SQLiteOpenHelper {

    private static final String DATABASE_NAME = "UserDB.db";
    private static final int DATABASE_VERSION = 1;
```

```
public static final String TABLE_USERS = "users";
public static final String COLUMN_ID = "id";
public static final String COLUMN_NAME = "name";
public static final String COLUMN_EMAIL = "email";
public static final String COLUMN_PHONE = "phone";
public static final String COLUMN_PASSWORD = "password";
public static final String COLUMN_GENDER = "gender";

private static final String CREATE_TABLE_USERS =
    "CREATE TABLE " + TABLE_USERS + "(" +
        COLUMN_ID + " INTEGER PRIMARY KEY AUTOINCREMENT," +
        COLUMN_NAME + " TEXT," +
        COLUMN_EMAIL + " TEXT UNIQUE," +
        COLUMN_PHONE + " TEXT," +
        COLUMN_PASSWORD + " TEXT," +
        COLUMN_GENDER + " TEXT)";

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

@Override
public void onCreate(SQLiteDatabase db) {
    db.execSQL(CREATE_TABLE_USERS);
}

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

// Add new user
public long addUser(String name, String email, String phone, String password, String gender) {
    SQLiteDatabase db = this.getWritableDatabase();
    ContentValues values = new ContentValues();
    values.put(COLUMN_NAME, name);
    values.put(COLUMN_EMAIL, email);
    values.put(COLUMN_PHONE, phone);
    values.put(COLUMN_PASSWORD, password);
    values.put(COLUMN_GENDER, gender);

    long result = db.insert(TABLE_USERS, null, values);
}
```

```
        db.close();
        return result;
    }

    // Check if user exists
    public boolean checkUser(String email, String password) {
        SQLiteDatabase db = this.getReadableDatabase();
        String[] columns = {COLUMN_ID};
        String selection = COLUMN_EMAIL + " = ?" + " AND " + COLUMN_PASSWORD + " =
?";
        String[] selectionArgs = {email, password};

        Cursor cursor = db.query(TABLE_USERS, columns, selection, selectionArgs,
            null, null, null);
        int count = cursor.getCount();
        cursor.close();
        db.close();

        return count > 0;
    }

    // Get user by email
    public Cursor getUserByEmail(String email) {
        SQLiteDatabase db = this.getReadableDatabase();
        String[] columns = {COLUMN_ID, COLUMN_NAME, COLUMN_EMAIL,
COLUMN_PHONE, COLUMN_GENDER};
        String selection = COLUMN_EMAIL + " = ?";
        String[] selectionArgs = {email};

        return db.query(TABLE_USERS, columns, selection, selectionArgs,
            null, null, null);
    }

    // Update user
    public boolean updateUser(String email, String name, String phone, String gender) {
        SQLiteDatabase db = this.getWritableDatabase();
        ContentValues values = new ContentValues();
        values.put(COLUMN_NAME, name);
        values.put(COLUMN_PHONE, phone);
        values.put(COLUMN_GENDER, gender);

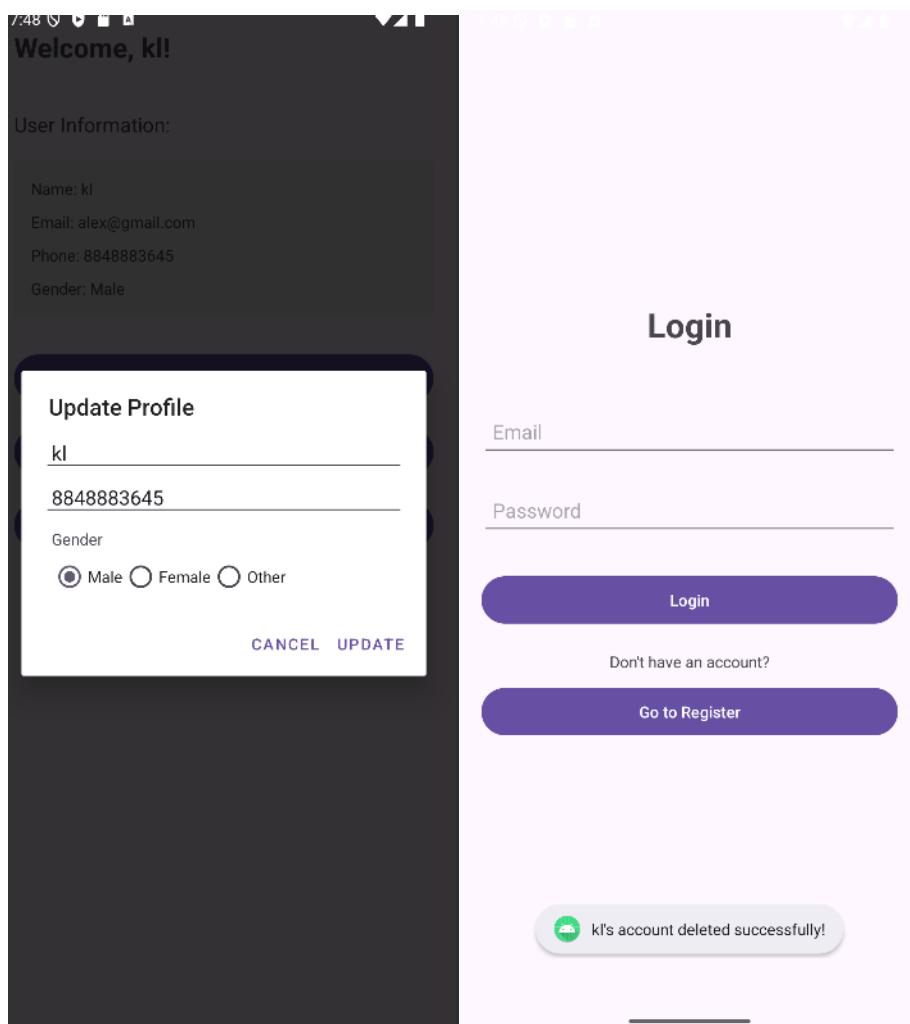
        int rowsAffected = db.update(TABLE_USERS, values, COLUMN_EMAIL + " = ?",
            new String[]{email});
        db.close();
    }
}
```

```

        return rowsAffected > 0;
    }

    // Delete user
    public boolean deleteUser(String email) {
        SQLiteDatabase db = this.getWritableDatabase();
        int rowsAffected = db.delete(TABLE_USERS, COLUMN_EMAIL + " = ?",
            new String[]{email});
        db.close();
        return rowsAffected > 0;
    }
}

```



Submitted By:Alex Saimy Abraham
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