

Application 1: ContentProvider

activity_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    tools:context=".MainActivity"
    android:orientation="vertical">

    <TextView
        android:layout_marginTop="20dp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Content Provider"
        android:layout_marginStart="90dp"
        android:textSize="35dp"
        android:textColor="#000" />

    <EditText
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/e1"
        android:hint="Enter Employee Name"
        android:layout_marginTop="50dp"
        android:layout_marginStart="40dp"/>

    <EditText
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/e2"
        android:hint="Enter your job profile"
        android:layout_marginTop="10dp"
        android:layout_marginStart="40dp"/>

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="save"
        android:layout_marginTop="20dp"
        android:layout_marginStart="150dp"
        android:onClick="doSaveContent"
        android:id="@+id/save"/>

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Load"
        android:layout_marginTop="20dp"
        android:layout_marginStart="150dp"
        android:onClick="doLoadContent"
        android:id="@+id/load"/>

</LinearLayout>
```

Main_Activity.java

```
package com.example.contentprovider;

import androidx.appcompat.app.AppCompatActivity;

import android.content.ContentValues;
import android.database.Cursor;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.EditText;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    EditText e1, e2;
    ContentValues values = new ContentValues();
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        e1 = findViewById(R.id.e1);
        e2 = findViewById(R.id.e2);
    }

    public void doSaveContent(View view) {
        values.put("emp_name", e1.getText().toString());
        values.put("profile", e2.getText().toString());
        Uri = getContentResolver().insert(CompanyProvider.CONTENT_URI,
values);
        Toast.makeText(this, uri.toString(), Toast.LENGTH_SHORT).show();
    }

    public void doLoadConent(View view) {
        Cursor cr = getContentResolver().query(CompanyProvider.CONTENT_URI,
null, null, null, "_id");
        StringBuilder = new StringBuilder();
        while(cr.moveToNext()){
            int id = cr.getInt(0);
            String s1 = cr.getString(1);
            String s2 = cr.getString(2);
            stringBuilder.append(id+"      "+s1+"      "+s2+"\n");
        }
        Toast.makeText(this, stringBuilder.toString(),
Toast.LENGTH_SHORT).show();
    }
}
```

Company_Provider.java

```
package com.example.contentprovider;

import android.content.ContentProvider;
```

```

import android.content.ContentUri;
import android.content.ContentValues;
import android.content.Context;
import android.content.UriMatcher;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;
import android.database.sqlite.SQLiteQuery;
import android.database.sqlite.SQLiteQueryBuilder;
import android.net.Uri;

import androidx.annotation.Nullable;

public class CompanyProvider extends ContentProvider {
    SQLiteDatabase myDb;
    public CompanyProvider() {
    }
    public static final String AUTHORITY = "com.lalit.my.company.provider";
    public static final Uri CONTENT_URI =
Uri.parse("content://" + AUTHORITY + "/emp");
    private static final String DB_NAME = "company";
    private static final String DB_TABLE = "emp";
    private static final int DB_VER = 1;

    static int EMP = 1;
    static int EMP_ID = 2;

    static UriMatcher myUri = new UriMatcher(UriMatcher.NO_MATCH);
    static {
        myUri.addURI(AUTHORITY, "emp", EMP);
        myUri.addURI(AUTHORITY, "emp/#", EMP_ID);
    }
    private class MyOwnDatabase extends SQLiteOpenHelper {

        public MyOwnDatabase(Context ct) {
            super(ct, DB_NAME, null, DB_VER);
        }

        @Override
        public void onCreate(SQLiteDatabase sqLiteDatabase) {
            sqLiteDatabase.execSQL("create table " + DB_TABLE + " (_id integer
primary key autoincrement ,emp_name text, profile text);");
        }

        @Override
        public void onUpgrade(SQLiteDatabase sqLiteDatabase, int i, int i1)
        {
            sqLiteDatabase.execSQL("drop table if exists " + DB_TABLE);
            onCreate(sqLiteDatabase);
        }
    }

    @Override
    public int delete(Uri, String selection, String[] selectionArgs) {
        // Implement this to handle requests to delete one or more rows.
        throw new UnsupportedOperationException("Not yet implemented");
    }

    @Override
    public String getType(Uri uri) {

```

```

        // TODO: Implement this to handle requests for the MIME type of the
data
        // at the given URI.
        throw new UnsupportedOperationException("Not yet implemented");
    }

    @Override
    public Uri insert(Uri, ContentValues values) {
        long row = myDb.insert(DB_TABLE, null, values);
        if (row > 0) {
            uri = ContentUris.withAppendedId(CONTENT_URI, row);
            getContext().getContentResolver().notifyChange(uri, null);
        }
        return uri;
    }

    @Override
    public boolean onCreate() {
        MyOwnDatabase myHelper = new MyOwnDatabase(getContext());
        myDb = myHelper.getWritableDatabase();
        if (myDb != null) {
            return true;
        }
        else {
            return false;
        }
    }

    @Override
    public Cursor query(Uri, String[] projection, String selection,
                        String[] selectionArgs, String sortOrder) {
        SQLiteQueryBuilder myQuery = new SQLiteQueryBuilder();
        myQuery.setTables(DB_TABLE);
        Cursor cr = myQuery.query(myDb, null, null, null, null, null,
" _id");
        cr.setNotificationUri(getContext().getContentResolver(), uri);
        return cr;
    }

    @Override
    public int update(Uri, ContentValues values, String selection,
                     String[] selectionArgs) {
        // TODO: Implement this to handle requests to update one or more
rows.
        throw new UnsupportedOperationException("Not yet implemented");
    }
}

```

AndroidManifest.xml

```

<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.contentprovider">

    <application
        android:allowBackup="true"

```

```

        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/Theme.Contentprovider">
        <provider
            android:name=".CompanyProvider"
            android:authorities="com.lalit.my.company.provider"
            android:enabled="true"
            android:exported="true"></provider>

        <activity
            android:name=".MainActivity"
            android:exported="true">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER"
/>
            </intent-filter>
        </activity>
    </application>
</manifest>

```

Application 2: Second Provider

activity_main.xml

```

<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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:orientation="vertical"
    android:layout_height="match_parent"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Second Provider"
        android:layout_marginStart="140dp"
        android:textColor="#000"
        android:layout_marginTop="40dp"
    />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="40dp"
        android:text="Load Data of Provider"
        android:layout_marginStart="110dp"
        android:onClick="doLoad"/>

```

</LinearLayout>

MainActivity.java

```
package com.example.secondprovider;

import androidx.appcompat.app.AppCompatActivity;

import android.database.Cursor;
import android.net.Uri;
import android.os.Bundle;
import android.view.View;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {
    Uri CONTENT_URI =
Uri.parse("content://com.lalit.my.company.provider/emp");

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

    public void doLoad(View view) {
        Cursor cr = getContentResolver().query(CONTENT_URI, null, null,
null, "_id");
        StringBuilder = new StringBuilder();
        while(cr.moveToNext()){
            int id = cr.getInt(0);
            String s1 = cr.getString(1);
            String s2 = cr.getString(2);
            stringBuilder.append(id+"      "+s1+"      "+s2+"\n");
        }
        Toast.makeText(this, stringBuilder.toString(),
Toast.LENGTH_SHORT).show();
    }
}
```