MainActivity.java

**package** com.example.contentproviders;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.ContentValues;  
**import** android.content.Context;  
**import** android.database.Cursor;  
**import** android.net.Uri;  
**import** android.os.Bundle;  
**import** android.view.MotionEvent;  
**import** android.view.View;  
**import** android.view.inputmethod.InputMethodManager;  
**import** android.widget.EditText;  
**import** android.widget.TextView;  
**import** android.widget.Toast;  
  
**public class** MainActivity **extends** AppCompatActivity {  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 }  
  
 @Override  
 **public boolean** onTouchEvent(MotionEvent event) {  
 InputMethodManager imm = (InputMethodManager)getSystemService(Context.***INPUT\_METHOD\_SERVICE***);  
 imm.hideSoftInputFromWindow(getCurrentFocus().getWindowToken(), 0);  
 **return true**;  
 }  
 **public void** onClickAddDetails(View view) {  
  
 *// class to add values in the database* ContentValues values = **new** ContentValues();  
  
 *// fetching text from user* values.put(MyContentProvider.***name***, ((EditText) findViewById(R.id.***textName***)).getText().toString());  
  
 *// inserting into database through content URI* getContentResolver().insert(MyContentProvider.***CONTENT\_URI***, values);  
  
 *// displaying a toast message* Toast.*makeText*(getBaseContext(), **"New Record Inserted"**, Toast.***LENGTH\_LONG***).show();  
 }  
  
 **public void** onClickShowDetails(View view) {  
 *// inserting complete table details in this text field* TextView resultView= (TextView) findViewById(R.id.***res***);  
  
 *// creating a cursor object of the  
 // content URI* Cursor cursor = getContentResolver().query(Uri.*parse*(**"content://com.demo.user.provider/users"**), **null**, **null**, **null**, **null**);  
  
 *// iteration of the cursor  
 // to print whole table* **if**(cursor.moveToFirst()) {  
 StringBuilder strBuild=**new** StringBuilder();  
 **while** (!cursor.isAfterLast()) {  
 strBuild.append(**"\n"**+cursor.getString(cursor.getColumnIndex(**"id"**))+ **"-"**+ cursor.getString(cursor.getColumnIndex(**"name"**)));  
 cursor.moveToNext();  
 }  
 resultView.setText(strBuild);  
 }  
 **else** {  
 resultView.setText(**"No Records Found"**);  
 }  
 }  
 }

MyContent Provider.java

**package** com.example.contentproviders;  
  
**import** android.content.ContentProvider;  
**import** android.content.ContentUris;  
**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.SQLiteException;  
**import** android.database.sqlite.SQLiteOpenHelper;  
**import** android.database.sqlite.SQLiteQueryBuilder;  
**import** android.net.Uri;  
**import** java.util.HashMap;  
  
**public class** MyContentProvider **extends** ContentProvider {  
 **public** MyContentProvider() {  
 }  
  
 *// defining authority so that other application can access it* **static final** String ***PROVIDER\_NAME*** = **"com.demo.user.provider"**;  
  
 *// defining content URI* **static final** String ***URL*** = **"content://"** + ***PROVIDER\_NAME*** + **"/users"**;  
  
 *// parsing the content URI* **static final** Uri ***CONTENT\_URI*** = Uri.*parse*(***URL***);  
  
 **static final** String ***id*** = **"id"**;  
 **static final** String ***name*** = **"name"**;  
 **static final int *uriCode*** = 1;  
 **static final** UriMatcher ***uriMatcher***;  
 **private static** HashMap<String, String> *values*;  
  
 **static** {  
  
 *// to match the content URI  
 // every time user access table under content provider* ***uriMatcher*** = **new** UriMatcher(UriMatcher.***NO\_MATCH***);  
  
 *// to access whole table* ***uriMatcher***.addURI(***PROVIDER\_NAME***, **"users"**, ***uriCode***);  
  
 *// to access a particular row  
 // of the table* ***uriMatcher***.addURI(***PROVIDER\_NAME***, **"users/\*"**, ***uriCode***);  
 }  
 @Override  
 **public** String getType(Uri uri) {  
 **switch** (***uriMatcher***.match(uri)) {  
 **case *uriCode***:  
 **return "vnd.android.cursor.dir/users"**;  
 **default**:  
 **throw new** IllegalArgumentException(**"Unsupported URI: "** + uri);  
 }  
 }  
 *// creating the database* @Override  
 **public boolean** onCreate() {  
 Context context = getContext();  
 DatabaseHelper dbHelper = **new** DatabaseHelper(context);  
 **db** = dbHelper.getWritableDatabase();  
 **if** (**db** != **null**) {  
 **return true**;  
 }  
 **return false**;  
 }  
 @Override  
 **public** Cursor query(Uri uri, String[] projection, String selection,  
 String[] selectionArgs, String sortOrder) {  
 SQLiteQueryBuilder qb = **new** SQLiteQueryBuilder();  
 qb.setTables(***TABLE\_NAME***);  
 **switch** (***uriMatcher***.match(uri)) {  
 **case *uriCode***:  
 qb.setProjectionMap(*values*);  
 **break**;  
 **default**:  
 **throw new** IllegalArgumentException(**"Unknown URI "** + uri);  
 }  
 **if** (sortOrder == **null** || sortOrder == **""**) {  
 sortOrder = ***id***;  
 }  
 Cursor c = qb.query(**db**, projection, selection, selectionArgs, **null**,  
 **null**, sortOrder);  
 c.setNotificationUri(getContext().getContentResolver(), uri);  
 **return** c;  
 }  
  
 *// adding data to the database* @Override  
 **public** Uri insert(Uri uri, ContentValues values) {  
 **long** rowID = **db**.insert(***TABLE\_NAME***, **""**, values);  
 **if** (rowID > 0) {  
 Uri \_uri = ContentUris.*withAppendedId*(***CONTENT\_URI***, rowID);  
 getContext().getContentResolver().notifyChange(\_uri, **null**);  
 **return** \_uri;  
 }  
 **throw new** SQLiteException(**"Failed to add a record into "** + uri);  
 }  
  
 @Override  
 **public int** update(Uri uri, ContentValues values, String selection,  
 String[] selectionArgs) {  
 **int** count = 0;  
 **switch** (***uriMatcher***.match(uri)) {  
 **case *uriCode***:  
 count = **db**.update(***TABLE\_NAME***, values, selection, selectionArgs);  
 **break**;  
 **default**:  
 **throw new** IllegalArgumentException(**"Unknown URI "** + uri);  
 }  
 getContext().getContentResolver().notifyChange(uri, **null**);  
 **return** count;  
 }  
  
 @Override  
 **public int** delete(Uri uri, String selection, String[] selectionArgs) {  
 **int** count = 0;  
 **switch** (***uriMatcher***.match(uri)) {  
 **case *uriCode***:  
 count = **db**.delete(***TABLE\_NAME***, selection, selectionArgs);  
 **break**;  
 **default**:  
 **throw new** IllegalArgumentException(**"Unknown URI "** + uri);  
 }  
 getContext().getContentResolver().notifyChange(uri, **null**);  
 **return** count;  
 }  
  
 *// creating object of database  
 // to perform query* **private** SQLiteDatabase **db**;  
  
 *// declaring name of the database* **static final** String ***DATABASE\_NAME*** = **"UserDB"**;  
  
 *// declaring table name of the database* **static final** String ***TABLE\_NAME*** = **"Users"**;  
  
 *// declaring version of the database* **static final int *DATABASE\_VERSION*** = 1;  
  
 *// sql query to create the table* **static final** String ***CREATE\_DB\_TABLE*** = **" CREATE TABLE "** + ***TABLE\_NAME*** + **" (id INTEGER PRIMARY KEY AUTOINCREMENT, "** + **" name TEXT NOT NULL);"**;  
  
 *// creating a database* **private static class** DatabaseHelper **extends** SQLiteOpenHelper {  
  
 *// defining a constructor* DatabaseHelper(Context context) {  
 **super**(context, ***DATABASE\_NAME***, **null**, ***DATABASE\_VERSION***);  
 }  
  
 *// creating a table in the database* @Override  
 **public void** onCreate(SQLiteDatabase db) {  
  
 db.execSQL(***CREATE\_DB\_TABLE***);  
 }  
  
 @Override  
 **public void** onUpgrade(SQLiteDatabase db, **int** oldVersion, **int** newVersion) {  
  
 *// sql query to drop a table  
 // having similar name* db.execSQL(**"DROP TABLE IF EXISTS "** + ***TABLE\_NAME***);  
 onCreate(db);  
 }  
 }  
}

AndroidManifest.xml

<**provider  
 android:name="com.example.contentproviders.MyContentProvider"  
 android:authorities="com.demo.user.provider"  
 android:enabled="true"  
 android:exported="true"**></**provider**>

Activity\_xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**androidx.constraintlayout.widget.ConstraintLayout  
 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:background="#168BC34A"  
 tools:context=".MainActivity"**>  
  
 <**LinearLayout  
 android:id="@+id/linearLayout"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_centerVertical="true"  
 android:orientation="vertical"  
 app:layout\_constraintBottom\_toTopOf="@+id/imageView"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.13"  
 tools:ignore="MissingConstraints"**>  
  
 <**TextView  
 android:id="@+id/textView1"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="40dp"  
 android:layout\_marginBottom="70dp"  
 android:text="Content Providers"  
  
 android:textAlignment="center"  
 android:textAppearance="@style/TextAppearance.AppCompat.Large"  
 android:textColor="@android:color/holo\_green\_dark"  
 android:textSize="36sp"  
 android:textStyle="bold"** />  
  
 <**EditText  
 android:id="@+id/textName"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginEnd="20dp"  
 android:layout\_marginBottom="40dp"** />  
  
 <**Button  
 android:id="@+id/insertButton"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="10dp"  
 android:layout\_marginEnd="20dp"  
 android:layout\_marginBottom="20dp"  
 android:background="#4CAF50"  
 android:text="Insert"  
  
 android:onClick="onClickAddDetails"  
  
 android:textAlignment="center"  
 android:textAppearance="@style/TextAppearance.AppCompat.Display1"  
 android:textColor="#FFFFFF"  
 android:textStyle="bold"** />  
  
 <**Button  
 android:id="@+id/loadButton"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="10dp"  
 android:layout\_marginEnd="20dp"  
 android:layout\_marginBottom="20dp"  
 android:background="#4CAF50"  
 android:text="Store"  
  
 android:onClick="onClickShowDetails"  
  
 android:textAlignment="center"  
 android:textAppearance="@style/TextAppearance.AppCompat.Display1"  
 android:textColor="#FFFFFF"  
 android:textStyle="bold"** />  
  
 <**TextView  
 android:id="@+id/res"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginEnd="20dp"  
 android:clickable="false"  
 android:ems="10"  
  
 android:textColor="@android:color/holo\_green\_dark"  
 android:textSize="18sp"  
 android:textStyle="bold"** />  
  
 </**LinearLayout**>  
  
  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>

Second App

MainActivity.java

**package** com.example.content\_2;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.database.Cursor;  
**import** android.net.Uri;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.TextView;  
  
**public class** MainActivity **extends** AppCompatActivity {  
  
 Uri **CONTENT\_URI** = Uri.*parse*(**"content://com.demo.user.provider/users"**);  
  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 }  
  
 **public void** onClickShowDetails(View view) {  
 *// inserting complete table details in this text field* TextView resultView= (TextView) findViewById(R.id.***res***);  
  
 *// creating a cursor object of the  
 // content URI* Cursor cursor = getContentResolver().query(Uri.*parse*(**"content://com.demo.user.provider/users"**), **null**, **null**, **null**, **null**);  
  
 *// iteration of the cursor  
 // to print whole table* **if**(cursor.moveToFirst()) {  
 StringBuilder strBuild=**new** StringBuilder();  
 **while** (!cursor.isAfterLast()) {  
 strBuild.append(**"\n"**+cursor.getString(cursor.getColumnIndex(**"id"**))+ **"-"**+ cursor.getString(cursor.getColumnIndex(**"name"**)));  
 cursor.moveToNext();  
 }  
 resultView.setText(strBuild);  
 }  
 **else** {  
 resultView.setText(**"No Records Found"**);  
 }  
 }  
}

activity\_xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**androidx.constraintlayout.widget.ConstraintLayout  
 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:background="#168BC34A"  
 tools:context=".MainActivity"**>  
  
 <**LinearLayout  
 android:id="@+id/linearLayout"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_centerVertical="true"  
 android:orientation="vertical"  
  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.13"  
 tools:ignore="MissingConstraints"**>  
  
 <**TextView  
 android:id="@+id/textView1"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="40dp"  
 android:layout\_marginBottom="70dp"  
 android:text="Accessing Data from First Application"  
  
  
 android:textAlignment="center"  
 android:textAppearance="@style/TextAppearance.AppCompat.Large"  
 android:textColor="@android:color/holo\_green\_dark"  
 android:textSize="36sp"  
 android:textStyle="bold"** />  
  
  
 <**Button  
 android:id="@+id/loadButton"  
 android:layout\_width="match\_parent"  
 android:layout\_height="match\_parent"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginTop="10dp"  
 android:layout\_marginEnd="20dp"  
 android:layout\_marginBottom="20dp"  
 android:background="#4CAF50"  
 android:text="Get and Load data"  
  
 android:onClick="onClickShowDetails"  
  
 android:textAlignment="center"  
 android:textAppearance="@style/TextAppearance.AppCompat.Display1"  
 android:textColor="#FFFFFF"  
 android:textStyle="bold"** />  
  
 <**TextView  
 android:id="@+id/res"  
 android:layout\_width="match\_parent"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginStart="20dp"  
 android:layout\_marginEnd="20dp"  
 android:clickable="false"  
 android:ems="10"  
 android:text="Fetched Data"  
  
 android:textColor="@android:color/holo\_green\_dark"  
 android:textSize="18sp"  
 android:textStyle="bold"** />  
  
 </**LinearLayout**>  
  
  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>