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Create a simple application in android to fetch data from one application's database into another's using content provider

Main XML Code:-

```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"
    tools:context=".MainActivity">

    <Button
        android:id="@+id/btn"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="298dp"
        android:text="Get Contacts"
        android:onClick="Contacts"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

Manifest Xml Code:-

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="com.example.content">
    <uses-permission android:name="android.permission.READ_CONTACTS"></uses-permission>
    <uses-permission android:name="android.permission.WRITE_CONTACTS"></uses-permission>
    <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.Content">
        <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>
```
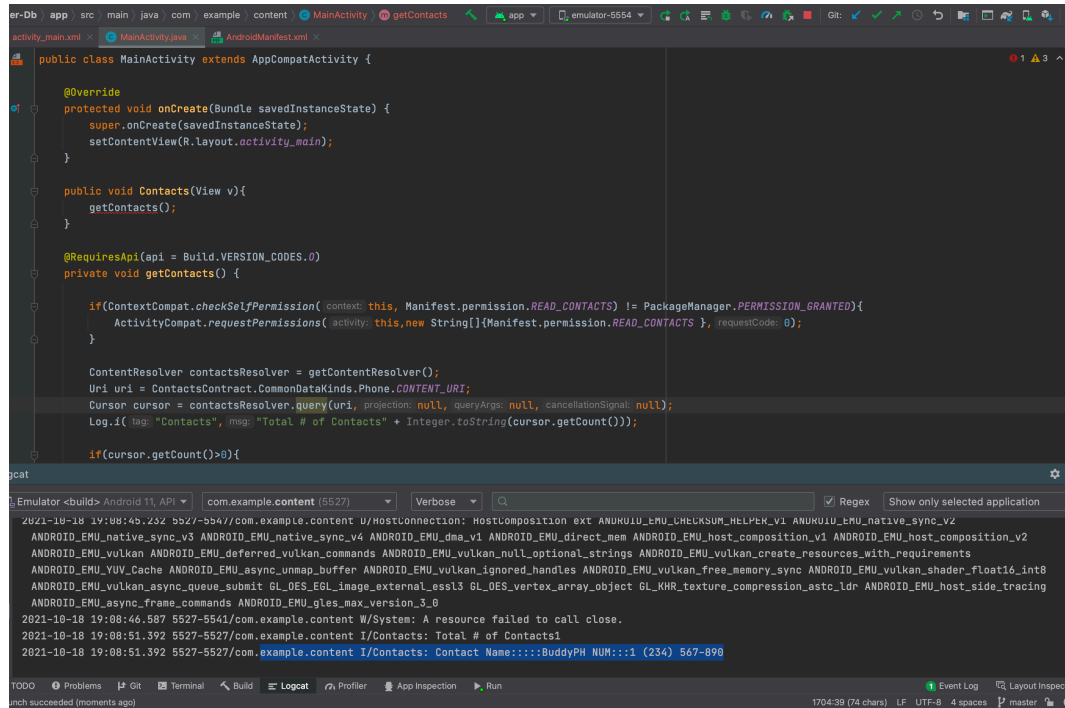
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Java Code:-

```java
package com.example.content;

import androidx.annotation.RequiresApi;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.app.ActivityCompat;
import androidx.core.content.ContextCompat;

import android.Manifest;
import android.content.ContentResolver;
import android.content.pm.PackageManager;
import android.database.Cursor;
import android.database.CursorIndexOutOfBoundsException;
import android.net.Uri;
import android.os.Build;
import android.os.Bundle;
import android.provider.ContactsContract;
import android.util.Log;
import android.view.View;
public class MainActivity extends AppCompatActivity {
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
    }
    public void Contacts(View v){
        getContacts();
    }
    @RequiresApi(api = Build.VERSION_CODES.O)
    private void getContacts() {
        if(ContextCompat.checkSelfPermission(this, Manifest.permission.READ_CONTACTS) !=
PackageManager.PERMISSION_GRANTED){
            ActivityCompat.requestPermissions(this,new String[]
{Manifest.permission.READ_CONTACTS },0);
        }
        ContentResolver contactsResolver = getContentResolver();
        Uri uri = ContactsContract.CommonDataKinds.Phone.CONTENT_URI;
        Cursor cursor = contactsResolver.query(uri,null,null,null);
        Log.i("Contacts","Total # of Contacts" + Integer.toString(cursor.getCount()));

        if(cursor.getCount()>0){
            while(cursor.moveToNext()){
                String contactName =
cursor.getString(cursor.getColumnIndex(ContactsContract.CommonDataKinds.Phone.DISPLAY_N
AME));
                String contactNumber =
cursor.getString(cursor.getColumnIndex(ContactsContract.CommonDataKinds.Phone.NUMBER));
                Log.i("Contacts","Contact Name:::::"+contactName+"PH NUM:::"+contactNumber);
            }
        }
    }
}
```

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O/P:-

Caption