

ContactList

AndroidManifest.xml

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

    <uses-permission
android:name="android.permission.READ_CONTACTS"/>
    <uses-permission
android:name="android.permission.WRITE_CONTACTS"/>

    <application
        android:allowBackup="true"

android:dataExtractionRules="@xml/data_extraction_rules"
        android:fullBackupContent="@xml/backup_rules"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportRtl="true"
        android:theme="@style/Theme.ContactList"
        tools:targetApi="31">
        <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>
```

strings.xml

```
<resources>
    <string name="app_name">ContactList</string>
</resources>
```

MainActivity.java

```
package com.example.contactlist;

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

import android.Manifest;
import android.content.pm.PackageManager;
import android.database.Cursor;
import android.os.Bundle;
import android.provider.ContactsContract;
import android.widget.ArrayAdapter;
import android.widget.ListView;
import android.widget.TextView;
import android.widget.Toast;

import java.util.ArrayList;

public class MainActivity extends AppCompatActivity {
    ListView listView;
    TextView textView;
    private static final int
PERMISSIONS_REQUEST_READ_CONTACTS=100;
    Cursor c;
    ArrayList<String> contacts;
    @Override
    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        listView=(ListView) findViewById(R.id.idList);
```

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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"
    android:orientation="vertical"
    android:id="@+id/idLayout"
    tools:context=".MainActivity">

    <ListView
        android:id="@+id/idList"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"></ListView>

</LinearLayout>
```

colors.xml

```
<?xml version="1.0" encoding="utf-8"?>
<resources>
    <color name="purple_200">#FFBB86FC</color>
    <color name="purple_500">#FF6200EE</color>
    <color name="purple_700">#FF3700B3</color>
    <color name="teal_200">#FF03DAC5</color>
    <color name="teal_700">#FF018786</color>
    <color name="black">#FF000000</color>
    <color name="white">#FFFFFFFF</color>
</resources>
```

themes.xml

```
<resources xmlns:tools="http://schemas.android.com/tools">
    <!-- Base application theme. -->
    <style name="Theme.ContactList"
        parent="Theme.MaterialComponents.DayNight.DarkActionBar">
        <!-- Primary brand color. -->
```

```
        int permissionCheck= ContextCompat.
checkSelfPermission(this,
                        Manifest.permission.READ_CONTACTS);
        if(permissionCheck== PackageManager.
PERMISSION_GRANTED) {
            showContacts();
        }
        else{
            ActivityCompat.requestPermissions(this,
                new String[]{Manifest.permission.
READ_CONTACTS},
PERMISSIONS_REQUEST_READ_CONTACTS);

        }
        ArrayAdapter<String> adapter=new
ArrayAdapter<String>(this,android.R.layout.
            simple_list_item_1,contacts);
        listView.setAdapter(adapter);
    }

    public void onRequestPermissionsResult(
int requestCode, String[] permissions,int[]
grantResults){
        if
(requestCode==PERMISSIONS_REQUEST_READ_CONTACTS){
            if(grantResults[0]==
PackageManager.PERMISSION_GRANTED){
                showContacts();
            }
            else {
                Toast.makeText(this,
"Until you grant the permission , we cannotdisplay the
names",
                                Toast.LENGTH_SHORT).show();
            }
        }
    }
}
```

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```
<item name="colorPrimary">@color/purple_500</item>
<item
name="colorPrimaryVariant">@color/purple_700</item>
<item name="colorOnPrimary">@color/white</item>
<!-- Secondary brand color. -->
<item name="colorSecondary">@color/teal_200</item>
<item
name="colorSecondaryVariant">@color/teal_700</item>
<item name="colorOnSecondary">@color/black</item>
<!-- Status bar color. -->
<item name="android:statusBarColor"
tools:targetApi="l">?attr/colorPrimaryVariant</item>
<!-- Customize your theme here. -->
</style>
</resources>
```

```
private void showContacts() {
    c=getContentResolver().query(ContactsContract.
CommonDataKinds.Phone.CONTENT_URI,null,
null,null,ContactsContract.
Contacts.DISPLAY_NAME+ " ASC ");
    contacts=new ArrayList<String>();
    while(c.moveToNext()){
        String contactName= c.getString
(c.getColumnIndexOrThrow
(ContactsContract.
CommonDataKinds.Phone.DISPLAY_NAME));
        String
phoneNumber=c.getString(c.getColumnIndexOrThrow
(ContactsContract.CommonDataKinds.Phone.NUMBER));

        contacts.add("Name:"+contactName+"\n"+"PhoneNo:"+
phoneNumber);
    }
    c.close();
}
```

Output

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