Practical 9

📱 Steps to Build the App

1. Add Permission in AndroidManifest.xml

<uses-permission android:name="android.permission.READ\_CONTACTS"/>

2. MainActivity.java

package com.example.contactsapp;

import android.Manifest;

import android.content.ContentResolver;

import android.content.pm.PackageManager;

import android.database.Cursor;

import android.os.Bundle;

import android.provider.ContactsContract;

import android.util.Log;

import android.widget.ArrayAdapter;

import android.widget.ListView;

import androidx.appcompat.app.AppCompatActivity;

import androidx.core.app.ActivityCompat;

import androidx.core.content.ContextCompat;

import java.util.ArrayList;

public class MainActivity extends AppCompatActivity {

private static final int REQUEST\_CONTACTS = 1;

ListView listView;

ArrayList<String> contactsList;

ArrayAdapter<String> adapter;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

listView = findViewById(R.id.listView);

contactsList = new ArrayList<>();

adapter = new ArrayAdapter<>(this, android.R.layout.simple\_list\_item\_1, contactsList);

listView.setAdapter(adapter);

// Check permission

if (ContextCompat.checkSelfPermission(this, Manifest.permission.READ\_CONTACTS)

!= PackageManager.PERMISSION\_GRANTED) {

ActivityCompat.requestPermissions(this,

new String[]{Manifest.permission.READ\_CONTACTS}, REQUEST\_CONTACTS);

} else {

loadContacts();

}

}

@Override

public void onRequestPermissionsResult(int requestCode, String[] permissions, int[] grantResults) {

super.onRequestPermissionsResult(requestCode, permissions, grantResults);

if (requestCode == REQUEST\_CONTACTS && grantResults.length > 0

&& grantResults[0] == PackageManager.PERMISSION\_GRANTED) {

loadContacts();

}

}

private void loadContacts() {

ContentResolver contentResolver = getContentResolver();

Cursor cursor = contentResolver.query(

ContactsContract.CommonDataKinds.Phone.CONTENT\_URI,

null, null, null,

ContactsContract.CommonDataKinds.Phone.DISPLAY\_NAME + " ASC");

if (cursor != null) {

while (cursor.moveToNext()) {

String name = cursor.getString(

cursor.getColumnIndexOrThrow(ContactsContract.CommonDataKinds.Phone.DISPLAY\_NAME));

String phone = cursor.getString(

cursor.getColumnIndexOrThrow(ContactsContract.CommonDataKinds.Phone.NUMBER));

String contact = name + " : " + phone;

contactsList.add(contact);

Log.d("CONTACT", contact);

}

cursor.close();

}

adapter.notifyDataSetChanged();

}

}

3. Layout file res/layout/activity\_main.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">

<ListView

android:id="@+id/listView"

android:layout\_width="match\_parent"

android:layout\_height="match\_parent"/>

</LinearLayout>