

ASSIGNMENT NO - 7

Aim : write a simple android program to create a contact app with basic functionality like saving the contact.

➤ **Description:**

I have to create an android application adding a new contact in to the contact list.

- Create a new project.
- Name them as registration form.
- It will generate activity_main.xml and mainactivity.java file.
- It will save the contact in the contact list.

➤ **Expected input:**

My expected input is mobile no and name.

➤ **Expected output:**

My expected output is showing the name in alphabetical order .

➤ **Discussion:**

In this program I have to create the form which will take the mobile no and name and save it to the contact list according to the alphabetical order.

➤ **Error checking :**

I have done the error checking there is no any error the program is running well and fine.

➤ **Assumption taken:**

There should be the read and write permission.

➤ **Scope for improvement:**

Its user interface should be improved and database should be connected to store the data.

➤ **Additional feature :**

It will display all the data in proper format, here alphabetically.

Activity_main.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">

    <EditText
        android:id="@+id/editTextTextPersonName"
        android:layout_width="287dp"
        android:layout_height="85dp"
        android:ems="10"
        android:hint="Name ..."
        android:inputType="textPersonName"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.54"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.086" />

    <EditText
        android:id="@+id/editTextNumber"
        android:layout_width="282dp"
        android:layout_height="91dp"
        android:layout_marginTop="53dp"
        android:ems="10"
        android:hint="Number ..."
        android:inputType="number"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.519"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editTextTextPersonName"
        app:layout_constraintVertical_bias="0.116" />

    <Button
        android:id="@+id/button"
        android:layout_width="158dp"
        android:layout_height="54dp"
        android:layout_marginTop="96dp"
        android:onClick="buttonAddContact"
        android:text="Add Contact"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/editTextNumber"
        app:layout_constraintVertical_bias="0.149" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

Mainactivity.java

```
package com.example.project_7;

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

import android.Manifest;
import android.app.Activity;
import android.content.ContentProviderOperation;
import android.content.OperationApplicationException;
import android.content.pm.PackageManager;
import android.os.Bundle;
import android.os.RemoteException;
import android.provider.ContactsContract;
import android.view.View;
import android.widget.EditText;

import java.util.ArrayList;

public class MainActivity extends AppCompatActivity {

    private EditText editTextName, editTextNumber;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        //THESE LINE OF CODE WILL GIVE THE PERMISSION TO WRITE INTO THE CONTACT
        ActivityCompat.requestPermissions(this,
            new String[]{Manifest.permission.WRITE_CONTACTS},
            PackageManager.PERMISSION_GRANTED);

        editTextName = findViewById(R.id.editTextTextPersonName);
        editTextNumber = findViewById(R.id.editTextNumber);
    }

    public void buttonAddContact(View view){
        ArrayList<ContentProviderOperation> contentProviderOperations
            = new ArrayList<ContentProviderOperation>();

        contentProviderOperations.add(ContentProviderOperation.newInsert(
            ContactsContract.RawContacts.CONTENT_URI)
            .withValue(ContactsContract.RawContacts.ACCOUNT_TYPE, null)
            .withValue(ContactsContract.RawContacts.ACCOUNT_NAME, null)
            .build());

        // Adding Name
        contentProviderOperations.add(ContentProviderOperation
            .newInsert(ContactsContract.Data.CONTENT_URI)

            .withValueBackReference(ContactsContract.Data.RAW_CONTACT_ID, 0)
            .withValue(ContactsContract.Data.MIMETYPE,

ContactsContract.CommonDataKinds.StructuredName.CONTENT_ITEM_TYPE)

            .withValue(ContactsContract.CommonDataKinds.StructuredName.DISPLAY_NAME,
```

```

        editTextName.getText().toString())
        .build());

    // Adding Number
    contentProviderOperations.add(ContentProviderOperation
        .newInsert(ContactsContract.Data.CONTENT_URI)

        .withValueBackReference(ContactsContract.Data.RAW_CONTACT_ID, 0)
        .withValue(ContactsContract.Data.MIMETYPE,

ContactsContract.CommonDataKinds.Phone.CONTENT_ITEM_TYPE)
        .withValue(ContactsContract.CommonDataKinds.Phone.NUMBER,
            editTextNumber.getText().toString())
        .withValue(ContactsContract.CommonDataKinds.Phone.TYPE,
            ContactsContract.CommonDataKinds.Phone.TYPE_MOBILE)
        .build());

    try {
        getContentResolver().applyBatch(ContactsContract.AUTHORITY,
contentProviderOperations);
    } catch (OperationApplicationException e) {
        e.printStackTrace();
    } catch (RemoteException e) {
        e.printStackTrace();
    }
}
}
}

```

Output

17:44

project_7

Name ...

Number ...

ADD CONTACT

17:45

project_7

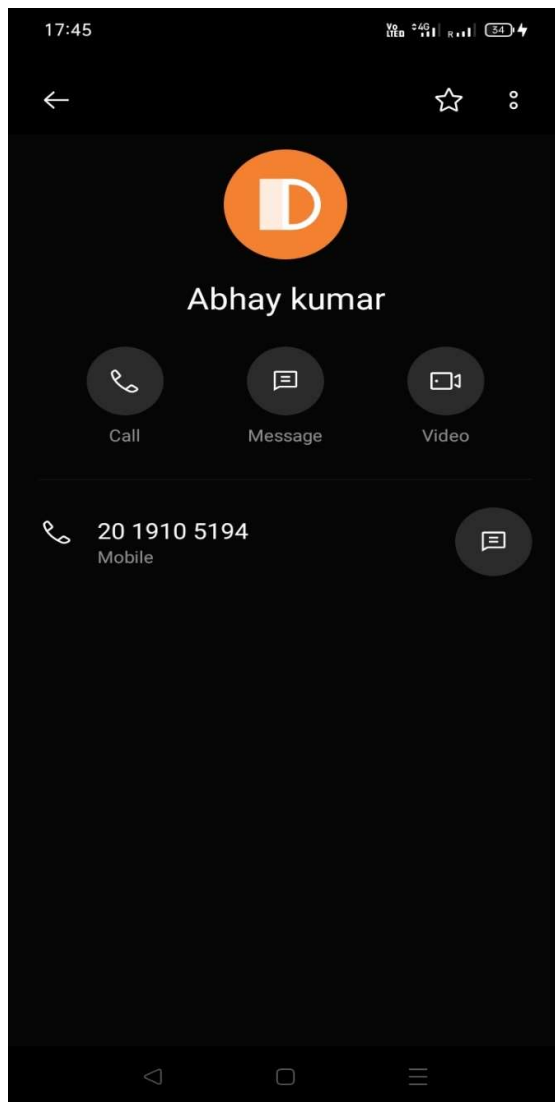
Abhay kumar

2019105194

ADD CONTACT

Contact form

Input data



Saved contact