**PART – A**

**Experiment-No:8**

Create an activity like a phone dialer with CALL and SAVE buttons. On pressing the CALL button, it must call the phone number and on pressing the SAVE button it must save the number to the phone contacts.

**Components Used:**

* Buttons: To Call and save phone number.
* Phone:To take the phone number from user.

**XML Code:**

<?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="#3F51B5"  
 tools:context=".MainActivity">  
  
 <EditText  
 android:id="@+id/phoneno"  
 android:layout\_width="260dp"  
 android:layout\_height="77dp"  
 android:ems="10"  
 android:inputType="phone"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.497"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.231" />  
  
 <ImageButton  
 android:id="@+id/phone"  
 android:layout\_width="103dp"  
 android:layout\_height="103dp"  
 android:layout\_marginTop="120dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toStartOf="@+id/save"  
 app:layout\_constraintHorizontal\_bias="0.583"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/phoneno"  
 app:layout\_constraintVertical\_bias="0.0"  
 app:srcCompat="@drawable/ic\_action\_name" />  
  
 <ImageButton  
 android:id="@+id/save"  
 android:layout\_width="103dp"  
 android:layout\_height="103dp"  
 android:layout\_marginTop="120dp"  
 android:layout\_marginEnd="80dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/phoneno"  
 app:layout\_constraintVertical\_bias="0.006"  
 app:srcCompat="@drawable/ic\_save" />  
</androidx.constraintlayout.widget.ConstraintLayout>

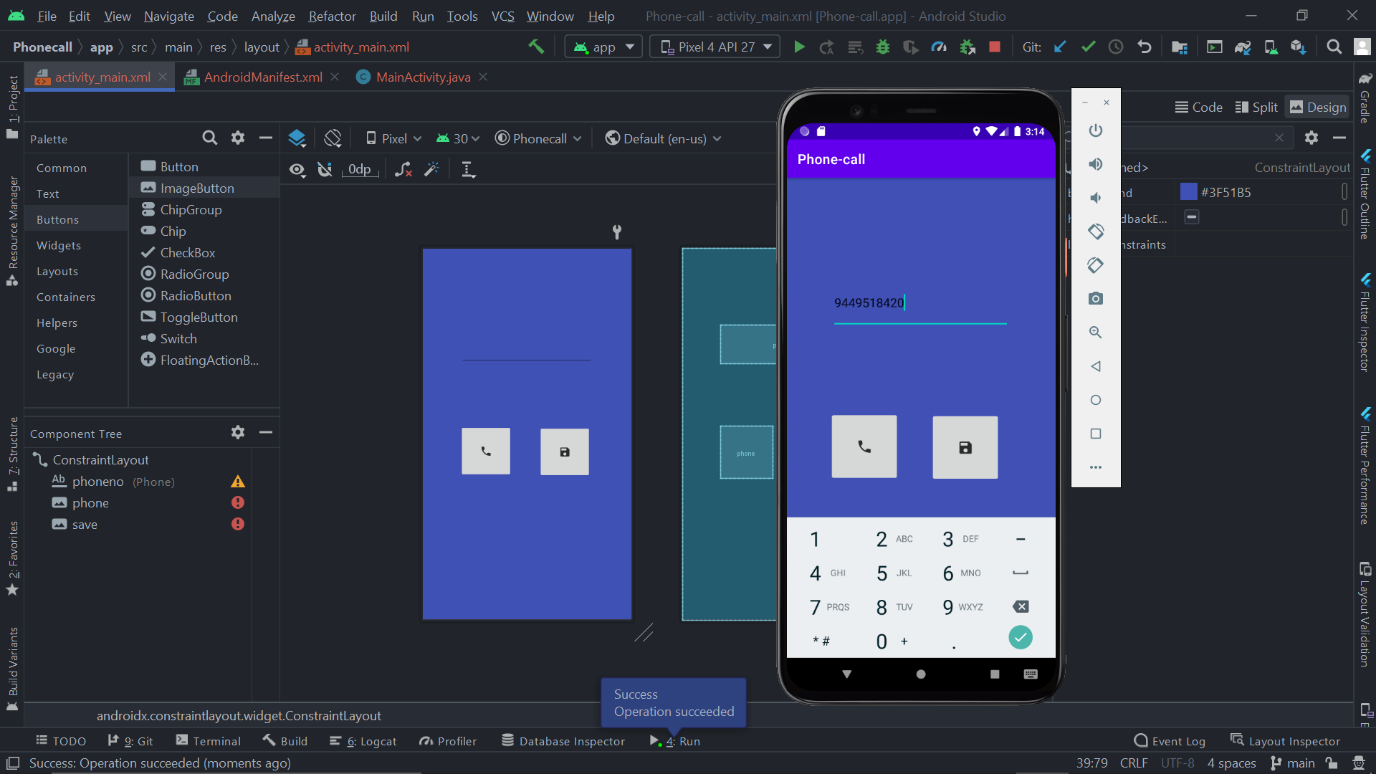
**Java Code:**

*package* com.keshavrkaranth.phone\_call;  
  
*import* androidx.appcompat.app.AppCompatActivity;  
*import* androidx.core.app.ActivityCompat;  
*import* androidx.core.content.ContextCompat;  
  
*import* android.Manifest;  
*import* android.content.Intent;  
*import* android.content.pm.PackageManager;  
*import* android.net.Uri;  
*import* android.os.Bundle;  
*import* android.provider.ContactsContract;  
*import* android.view.View;  
*import* android.widget.EditText;  
*import* android.widget.ImageButton;  
  
*import* java.security.acl.Permission;  
  
*public class* MainActivity *extends* AppCompatActivity {  
  
 EditText phone\_no;  
 ImageButton phone,save;  
  
 *@Override  
 protected void* onCreate(Bundle savedInstanceState) {  
 *super*.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
  
 phone\_no = findViewById(R.id.phoneno);  
 phone = findViewById(R.id.phone);  
 save = findViewById(R.id.save);  
  
 phone.setOnClickListener(*new* View.OnClickListener() {  
 *@Override  
 public void* onClick(View view) {  
 *if* (ContextCompat.checkSelfPermission(MainActivity.*this*, Manifest.permission.CALL\_PHONE)!= PackageManager.PERMISSION\_GRANTED){  
 ActivityCompat.requestPermissions(MainActivity.*this*,*new* String[]{Manifest.permission.CALL\_PHONE},1);  
 }*else* {  
 startActivity(*new* Intent(Intent.ACTION\_CALL, Uri.parse("tel:"+String.valueOf(phone\_no.getText().toString()))));  
 }  
 }  
 });  
  
 save.setOnClickListener(*new* View.OnClickListener() {  
 *@Override  
 public void* onClick(View view) {  
 String phonenumber = phone\_no.getText().toString();  
 Intent intent =*new* Intent(Intent.ACTION\_INSERT);  
 intent.setType(ContactsContract.Contacts.CONTENT\_TYPE);  
 intent.putExtra(ContactsContract.Intents.Insert.PHONE,phonenumber);  
 startActivity(intent);  
  
 }  
 });  
  
  
 }  
}

**Manifest file:**

<?xml version="1.0" encoding="utf-8"?>  
<manifest xmlns:android="http://schemas.android.com/apk/res/android"  
 package="com.keshavrkaranth.phone\_call">  
 <uses-permission android:name="android.permission.CALL\_PHONE"/>  
 <uses-permission android:name="android.permission.WRITE\_CONTACTS"/>  
 <uses-permission android:name="android.permission.READ\_CONTACTS"/>  
 <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.Phonecall">  
 <activity android:name=".MainActivity">  
 <intent-filter>  
 <action android:name="android.intent.action.MAIN" />  
  
 <category android:name="android.intent.category.LAUNCHER" />  
 </intent-filter>  
 </activity>  
 </application>  
  
</manifest>

**Sample Output:**

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