Android Lab

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RMCA B

1.Create a simple calculator.

.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"  
 android:background="@android:drawable/divider\_horizontal\_dim\_dark"  
 android:backgroundTint="@android:color/holo\_blue\_light"  
 android:foreground="@android:drawable/list\_selector\_background"  
 tools:context=".MainActivity"**>  
  
  
 <**Button  
 android:id="@+id/button"  
 android:layout\_width="64dp"  
 android:layout\_height="42dp"  
 android:text="1"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.1"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.658"** />  
  
 <**Button  
 android:id="@+id/button4"  
 android:layout\_width="68dp"  
 android:layout\_height="42dp"  
 android:text="2"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.525"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.652"** />  
  
 <**Button  
 android:id="@+id/button3"  
 android:layout\_width="62dp"  
 android:layout\_height="40dp"  
 android:text="3"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.943"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.647"** />  
  
 <**Button  
 android:id="@+id/button5"  
 android:layout\_width="56dp"  
 android:layout\_height="40dp"  
 android:text="4"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.109"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.778"** />  
  
 <**Button  
 android:id="@+id/button6"  
 android:layout\_width="67dp"  
 android:layout\_height="41dp"  
 android:text="5"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.518"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.772"** />  
  
 <**Button  
 android:id="@+id/button7"  
 android:layout\_width="62dp"  
 android:layout\_height="39dp"  
 android:text="6"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.943"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.764"** />  
  
 <**Button  
 android:id="@+id/button8"  
 android:layout\_width="61dp"  
 android:layout\_height="34dp"  
 android:text="7"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.112"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.863"** />  
  
 <**Button  
 android:id="@+id/button9"  
 android:layout\_width="65dp"  
 android:layout\_height="36dp"  
 android:text="8"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.531"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.868"** />  
  
 <**Button  
 android:id="@+id/button10"  
 android:layout\_width="64dp"  
 android:layout\_height="37dp"  
 android:text="9"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.977"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.873"** />  
  
 <**Button  
 android:id="@+id/button11"  
 android:layout\_width="65dp"  
 android:layout\_height="40dp"  
 android:text="0"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.536"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="1.0"** />  
  
 <**Button  
 android:id="@+id/button12"  
 android:layout\_width="79dp"  
 android:layout\_height="41dp"  
 android:text="+"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.547"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.309"** />  
  
 <**Button  
 android:id="@+id/button13"  
 android:layout\_width="39dp"  
 android:layout\_height="74dp"  
 android:text="\*"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.854"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.43"** />  
  
 <**Button  
 android:id="@+id/button14"  
 android:layout\_width="39dp"  
 android:layout\_height="71dp"  
 android:text="/"  
 app:layout\_constraintBottom\_toBottomOf="@+id/button11"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.211"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.436"** />  
  
 <**Button  
 android:id="@+id/button15"  
 android:layout\_width="71dp"  
 android:layout\_height="39dp"  
 android:text="\_"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.55"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/button18"  
 app:layout\_constraintVertical\_bias="0.0"** />  
  
 <**TextView  
 android:id="@+id/textView4"  
 android:layout\_width="225dp"  
 android:layout\_height="96dp"  
 android:background="#777368"  
 android:text="00.0"  
 android:textColor="@color/white"  
 android:textSize="24sp"  
 app:barrierMargin="@dimen/material\_emphasis\_disabled\_background"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.538"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.031"** />  
  
 <**Button  
 android:id="@+id/button16"  
 android:layout\_width="65dp"  
 android:layout\_height="42dp"  
 android:text="="  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.959"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.997"** />  
  
 <**Button  
 android:id="@+id/button18"  
 android:layout\_width="64dp"  
 android:layout\_height="42dp"  
 android:text="AC"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.535"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.426"** />  
  
 <**Button  
 android:id="@+id/button19"  
 android:layout\_width="64dp"  
 android:layout\_height="45dp"  
 android:text="."  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.114"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="1.0"** />  
  
 <**ImageView  
 android:id="@+id/imageView2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:background="@color/cardview\_dark\_background"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:srcCompat="@android:drawable/divider\_horizontal\_dim\_dark"  
 tools:layout\_editor\_absoluteY="39dp"** />  
  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>

.java

**package** com.example.registration;  
  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Toast;  
**import** android.widget.Button;  
**import** android.widget.EditText;  
**import** android.widget.TextView;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**public class** MainActivity **extends** AppCompatActivity {  
 EditText **num1**;  
 EditText **num2**;  
 TextView **answer**;  
 Button **btn**;  
 **double num3**,**num4**,**sum**;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 **num1**=(EditText)findViewById(R.id.***num1***);  
 **num2**=(EditText)findViewById(R.id.***num2***);  
 **answer**=(TextView) findViewById(R.id.showsum);  
  
 **btn**=(Button)findViewById(R.id.btn1);  
  
 **btn**.setOnClickListener(**new** View.OnClickListener() {  
  
  
 @Override  
 **public void** onClick(View v) {  
   
 }**btn**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View ) {  
 String value1=**num1**.getText().toString();  
 String value2=**num2**.getText().toString();  
 **int** a = Integer.*parseInt*(value1);  
 **int** b = Integer.*parseInt*(value2);  
 **int** sum = a+b;  
 **answer**.setText(Integer.*toString*(sum));  
 Toast.*makeText*(getApplicationContext(), String.*valueOf*(sum), Toast.***LENGTH\_LONG***).show();  
 }  
 });  
 }  
}  
String.valueOf(**sum**), Toast.***LENGTH\_LONG***).show();  
}  
 });  
 }  
 }  
  
  
  
  
  
  
 }  
}

lifecycle

**package** com.example.lifecycle1;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.os.Bundle;  
**import** android.util.Log;  
  
**public class** MainActivity **extends** AppCompatActivity {  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 }  
 @Override  
 **protected void** onStart() {  
 **super**.onStart();  
 Log.*d*(**"lifecycle"**,**"on start invoked"**);  
  
 }  
  
 @Override  
 **protected void** onResume() {  
 **super**.onResume();  
 Log.*d*(**"lifecycle"**,**"on resume invoked"**);  
  
 }  
  
 @Override  
 **protected void** onPause() {  
 **super**.onPause();  
 Log.*d*(**"lifecycle"**,**"on pause invoked"**);  
 }  
  
 @Override  
 **protected void** onDestroy() {  
 **super**.onDestroy();  
 Log.*d*(**"lifecycle"**,**"on destroy invoked"**);}  
}

Facebook page

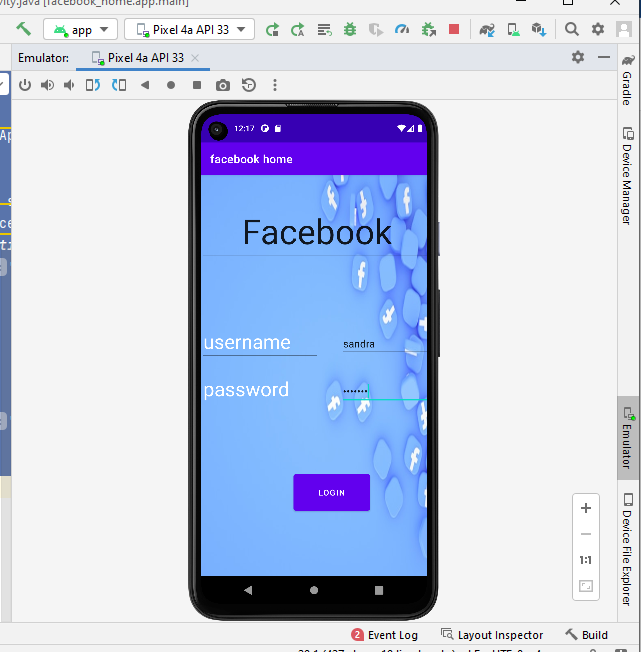
xml

*<?***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"  
 android:textAlignment="center"  
 tools:context=".MainActivity"**>  
  
 <**RelativeLayout  
 android:layout\_width="443dp"  
 android:layout\_height="733dp"  
 android:background="@drawable/background"  
 tools:layout\_editor\_absoluteX="1dp"  
 tools:layout\_editor\_absoluteY="1dp"**>  
  
 <**EditText  
 android:id="@+id/editTextTextPersonName3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="40dp"  
 android:layout\_marginBottom="585dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:text="Facebook"  
 android:textAlignment="center"  
 android:textSize="60sp"** />  
  
 <**EditText  
 android:id="@+id/editTextTextPersonName5"  
 android:layout\_width="206dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="237dp"  
 android:layout\_marginBottom="410dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:text="username"  
 android:textColor="@color/white"  
 android:textSize="34sp"** />  
  
 <**EditText  
 android:id="@+id/editTextTextPersonName6"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="228dp"  
 android:layout\_marginBottom="328dp"  
 android:ems="10"  
 android:inputType="textPersonName"  
 android:text="password"  
 android:textColor="@color/white"  
 android:textSize="34sp"** />  
  
 <**EditText  
 android:id="@+id/editTextTextPassword"  
 android:layout\_width="194dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="6dp"  
 android:layout\_marginBottom="334dp"  
 android:ems="10"  
 android:inputType="textPassword"** />  
  
 <**Button  
 android:id="@+id/button"  
 android:layout\_width="133dp"  
 android:layout\_height="75dp"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="149dp"  
 android:layout\_marginBottom="144dp"  
 android:text="Login"** />  
  
 <**EditText  
 android:id="@+id/editTextTextPersonName7"  
 android:layout\_width="196dp"  
 android:layout\_height="wrap\_content"  
 android:layout\_alignParentEnd="true"  
 android:layout\_alignParentBottom="true"  
 android:layout\_marginEnd="4dp"  
 android:layout\_marginBottom="417dp"  
 android:ems="10"  
 android:inputType="textPersonName"** />  
  
 </**RelativeLayout**>  
</**androidx.constraintlayout.widget.ConstraintLayout**>

.java

**import** android.view.Menu;  
  
  
**public class** MainActivity **extends** AppCompatActivity {  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 Log.*d*(**"lifecycle"**,**"on create invoked"**);  
  
 }  
  
 @Override  
 **protected void** onPause() {  
 **super**.onPause();  
 Log.*d*(**"lifecycle"**,**"on pause invoked"**);  
 }  
}

output



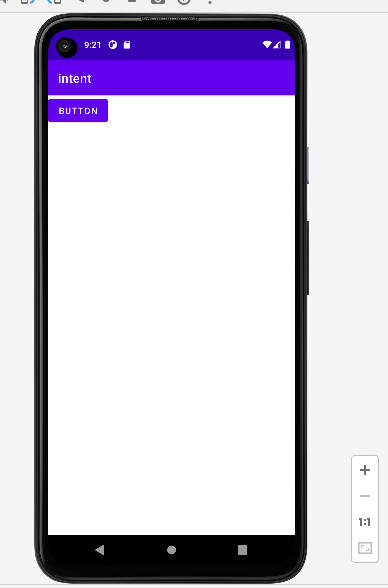
Intent

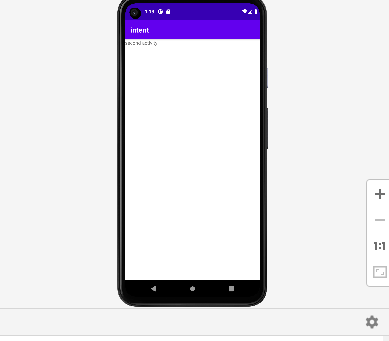
**package** com.example.intent;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.content.Intent;  
**import** android.os.Bundle;  
**import** android.view.View;  
**import** android.widget.Button;  
**import** android.widget.TextView;  
  
  
**public class** MainActivity **extends** AppCompatActivity {  
 Button **butt** ;  
 TextView **text**;  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 **butt**=findViewById(R.id.***B1***);  
 **butt**.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View v) {  
 Intent i=**new** Intent (MainActivity.**this**,secondactivity.**class**);  
 startActivity(i);  
  
 }  
 });  
 }

}

Second activity

**package** com.example.intent;  
  
**import** androidx.appcompat.app.AppCompatActivity;  
  
**import** android.os.Bundle;  
**import** android.widget.TextView;  
  
**public class** secondactivity **extends** AppCompatActivity {  
 TextView **secondactivity**;  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_secondactivity***);  
 }  
}





Gradient

Background.xml

*<?***xml version="1.0" encoding="utf-8"***?>*<**selector xmlns:android="http://schemas.android.com/apk/res/android"**>  
<**item**>  
 <**shape android:shape="rectangle"**>  
 <**solid android:color="#F48FB1"**></**solid**>  
 <**stroke android:color="#9C2780"  
 android:width="30dp"**>  
  
  
 </**stroke**>  
 <**corners android:bottomLeftRadius="45dp" android:topRightRadius="50dp" android:topLeftRadius="45dp" android:bottomRightRadius="45dp"**>  
 </**corners**>  
 <**size android:width="200dp"**></**size**>  
 <**gradient android:startColor="#9FFFE9" android:endColor="#9F40E7"**>  
  
 </**gradient**>  
 </**shape**>  
</**item**>  
</**selector**>

Activity.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"  
 android:background="@drawable/img"  
 android:backgroundTintMode="src\_in"  
 tools:context=".MainActivity"**>  
  
 <**ImageButton  
 android:id="@+id/imageButton"  
 android:layout\_width="249dp"  
 android:layout\_height="153dp"  
 android:background="@drawable/background"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.524"** />  
  
</**androidx.constraintlayout.widget.ConstraintLayout**>

