MAD LAB

2)
activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">


    <Button
        android:id="@+id/buttonsub"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="217dp"
        android:layout_marginBottom="534dp"
        android:text="-"
        android:textSize="16sp"
        tools:layout_editor_absoluteX="116dp"
        tools:layout_editor_absoluteY="153dp" />


    <Button
        android:id="@+id/buttonadd"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="314dp"
        android:layout_marginBottom="532dp"
        android:text="+"
        android:textSize="16sp"
        tools:layout_editor_absoluteX="28dp"
        tools:layout_editor_absoluteY="153dp" />


    <Button
        android:id="@+id/buttonmutli"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="13dp"
        android:layout_marginBottom="534dp"
        android:text="*"
```

```
        android:textSize="16sp"
        tools:layout_editor_absoluteX="202dp"
        tools:layout_editor_absoluteY="153dp" />


    <TextView
        android:id="@+id/textView5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="139dp"
        android:layout_marginBottom="666dp"
        android:text="CALCULATOR"
        android:textColor="#512DA8"
        android:textSize="24sp"
        android:textStyle="bold"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.022" />


    <Button
        android:id="@+id/buttondiv"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="114dp"
        android:layout_marginBottom="533dp"
        android:text="/"
        android:textSize="16sp"
        tools:layout_editor_absoluteX="290dp"
        tools:layout_editor_absoluteY="153dp" />


    <Button
        android:id="@+id/Randomcolor"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="118dp"
        android:layout_marginBottom="469dp"
        android:text="Generate random color"
        android:textSize="14sp"
        tools:layout_editor_absoluteX="108dp"
        tools:layout_editor_absoluteY="277dp" />
```

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```xml
<TextView
    android:id="@+id/textView4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="134dp"
    android:layout_marginBottom="339dp"
    android:text="Background Color"
    android:textColor="#512DA8"
    android:textSize="20sp"
    android:textStyle="bold"
    tools:layout_editor_absoluteX="124dp"
    tools:layout_editor_absoluteY="346dp" />


<TextView
    android:id="@+id/textView4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentEnd="true"
    android:layout_alignParentBottom="true"
    android:layout_marginEnd="337dp"
    android:layout_marginBottom="411dp"
    android:text="Result"
    android:textColor="#512DA8"
    android:textSize="20sp"
    android:textStyle="bold"
    tools:layout_editor_absoluteX="124dp"
    tools:layout_editor_absoluteY="346dp" />

<EditText
    android:id="@+id/editTextText"
    android:layout_width="190dp"
    android:layout_height="45dp"
    android:layout_alignParentBottom="true"
    android:layout_marginBottom="606dp"
    android:ems="10"
    android:inputType="text"
    android:text="First Number"
    android:textColor="#512DA8"
    tools:layout_editor_absoluteX="3dp"
    tools:layout_editor_absoluteY="73dp" />


<EditText
    android:id="@+id/editTextText2"
    android:layout_width="202dp"
    android:layout_height="46dp"
    android:layout_alignParentEnd="true"
```

```xml
        android:layout_alignParentBottom="true"
        android:layout_marginEnd="8dp"
        android:layout_marginBottom="606dp"
        android:ems="10"
        android:inputType="text"
        android:text="Second Number"
        android:textColor="#512DA8"
        android:textColorLink="#512DA8"
        tools:layout_editor_absoluteX="202dp"
        tools:layout_editor_absoluteY="72dp" />


    <Space
        android:layout_width="4dp"
        android:layout_height="20dp"
        android:layout_marginStart="404dp"
        app:layout_constraintStart_toStartOf="parent"
        tools:layout_editor_absoluteY="53dp" />


    <Space
        android:id="@+id/space4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        tools:layout_editor_absoluteX="201dp"
        tools:layout_editor_absoluteY="124dp" />


    <Space
        android:id="@+id/space"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        tools:layout_editor_absoluteX="188dp"
        tools:layout_editor_absoluteY="55dp" />


    <Space
        android:id="@+id/space2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintStart_toStartOf="parent"
        tools:layout_editor_absoluteY="57dp" />


    <Space
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        app:layout_constraintBottom_toTopOf="@+id/button2"
        tools:layout_editor_absoluteX="201dp"
```

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```xml
<Space
    android:id="@+id/space3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    tools:layout_editor_absoluteX="204dp"
    tools:layout_editor_absoluteY="57dp" />


<Space
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    app:layout_constraintEnd_toEndOf="parent"
    tools:layout_editor_absoluteY="119dp" />

<RadioGroup
    android:id="@+id/grp"
    android:layout_width="272dp"
    android:layout_height="266dp"
    android:layout_alignParentBottom="true"
    android:layout_marginBottom="47dp" >

    <RadioButton
        android:id="@+id/r1"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Green" />

    <RadioButton
        android:id="@+id/r2"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Yellow" />

    <RadioButton
        android:id="@+id/r3"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:text="Red" />
</RadioGroup>


</RelativeLayout>
```

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MainActivity.java

```java
package com.example.test2;

import android.graphics.Color;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.RadioButton;
import android.widget.RadioGroup;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

import java.util.Random;

public class MainActivity extends AppCompatActivity {
    EditText ed1, ed2;
    Button sub, add, multi, div;
    TextView Result;
    RadioGroup grp;
    Button Randomcolor;
    RadioButton r1,r2,r3;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        ed1 = findViewById(R.id.editTextText);
        ed2 = findViewById(R.id.editTextText2);
        sub = findViewById(R.id.buttonsub);
        add = findViewById(R.id.buttonadd);
        multi = findViewById(R.id.buttonmutli);
        div = findViewById(R.id.buttondiv);
        Result = findViewById(R.id.textView4);
        Randomcolor = findViewById(R.id.Randomcolor);  // Initializing Randomcolor button
        grp = findViewById(R.id.grp);
        r1 = findViewById(R.id.r1);
        r2 = findViewById(R.id.r2);
        r3 = findViewById(R.id.r3);


        add.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                int t1, t2, res;
                t1 = Integer.parseInt(ed1.getText().toString());
                t2 = Integer.parseInt(ed2.getText().toString());
```

```java
            res = t1 + t2;
            Result.setText("Result=" + res);
        }
    });

    sub.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            int t1, t2, res;
            t1 = Integer.parseInt(ed1.getText().toString());
            t2 = Integer.parseInt(ed2.getText().toString());
            res = t1 - t2;
            Result.setText("Result=" + res);
        }
    });

    multi.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            int t1, t2, res;
            t1 = Integer.parseInt(ed1.getText().toString());
            t2 = Integer.parseInt(ed2.getText().toString());
            res = t1 * t2;
            Result.setText("Result=" + res);
        }
    });

    div.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            int t1, t2, res;
            t1 = Integer.parseInt(ed1.getText().toString());
            t2 = Integer.parseInt(ed2.getText().toString());
            res = t1 / t2;
            Result.setText("Result=" + res);
        }
    });

    Randomcolor.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            Random random = new Random();
            int color = Color.argb(220, random.nextInt(256), random.nextInt(256), random.nextInt(256));
            getWindow().getDecorView().setBackgroundColor(color);
        }
    });
    grp.setOnCheckedChangeListener(new RadioGroup.OnCheckedChangeListener() {
        @Override
        public void onCheckedChanged(RadioGroup radioGroup, int i) {
            switch (i){
                case R.id.r1:
```
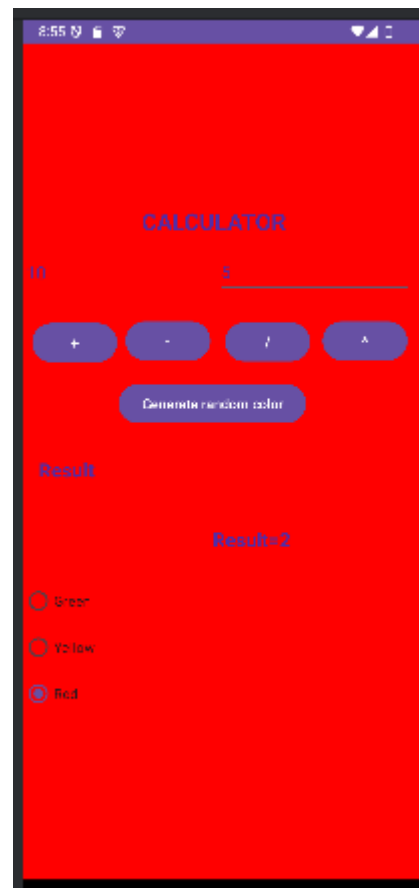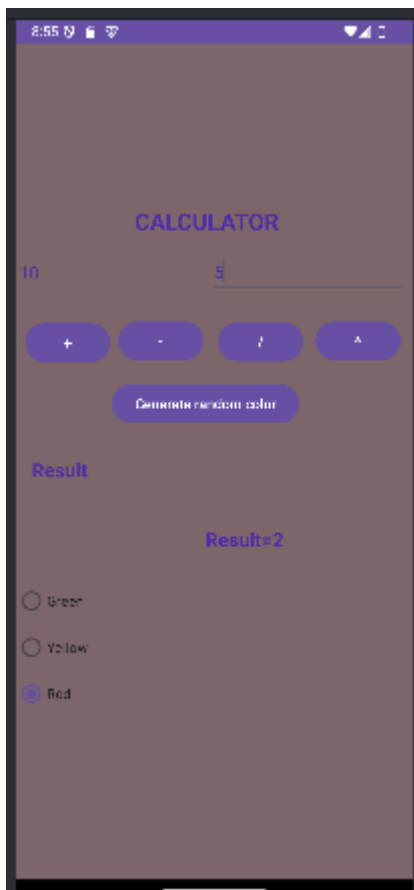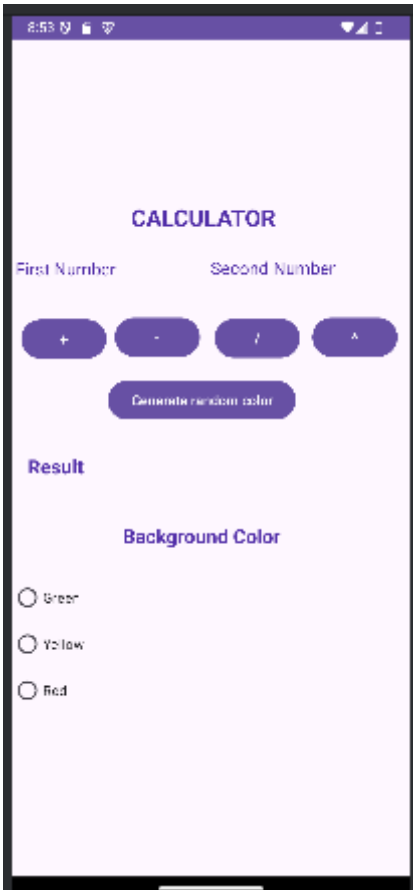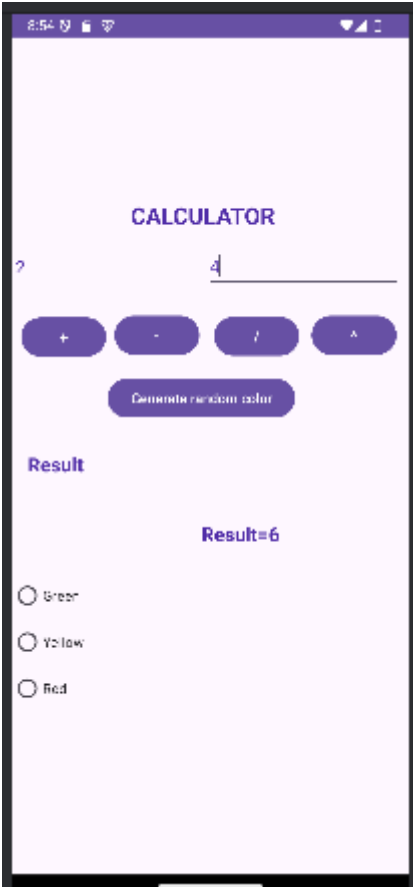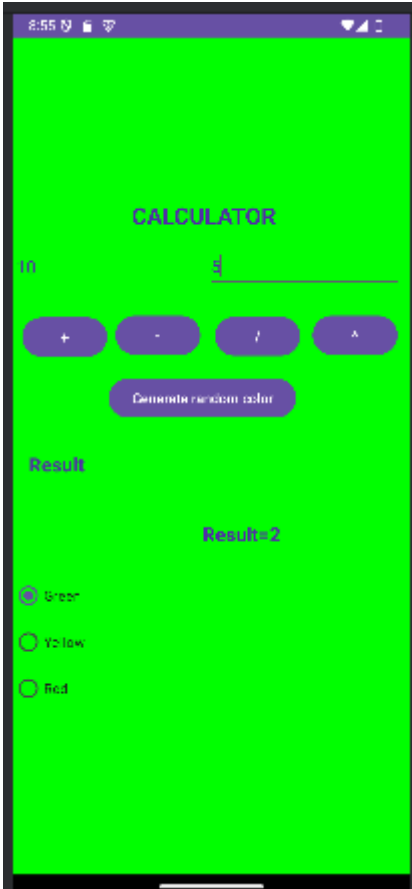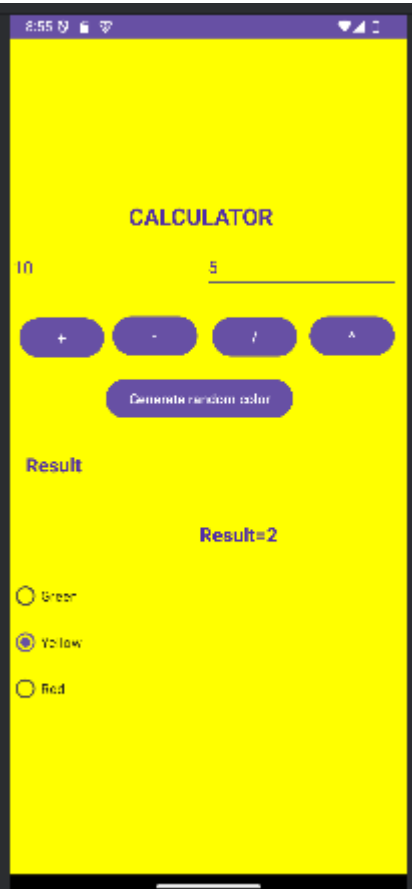
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```java
                getWindow().getDecorView().setBackgroundColor(Color.GREEN);
                break;
            case R.id.r2:
            getWindow().getDecorView().setBackgroundColor(Color.YELLOW);
            break;
            case R.id.r3:
                getWindow().getDecorView().setBackgroundColor(Color.RED);
                break;
            }
        }
    });
  }
}
```
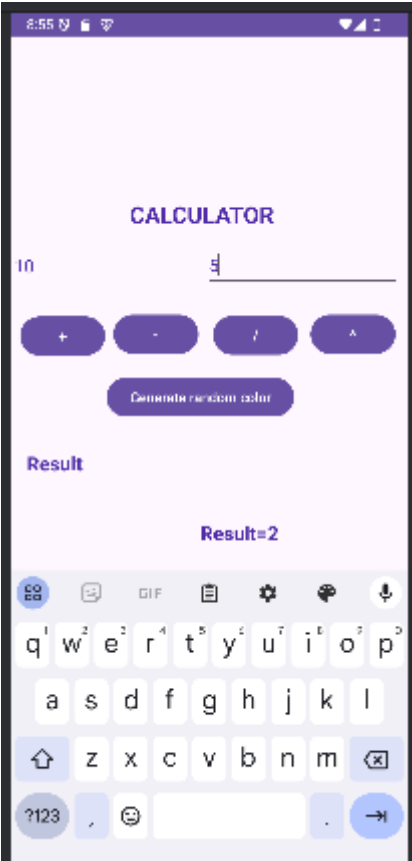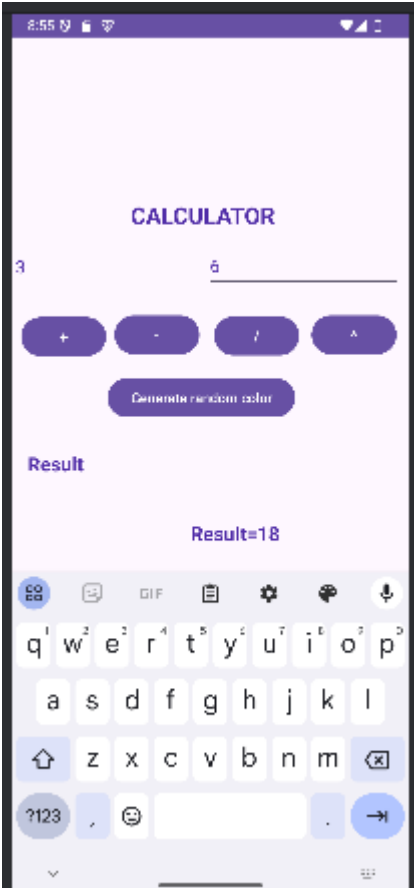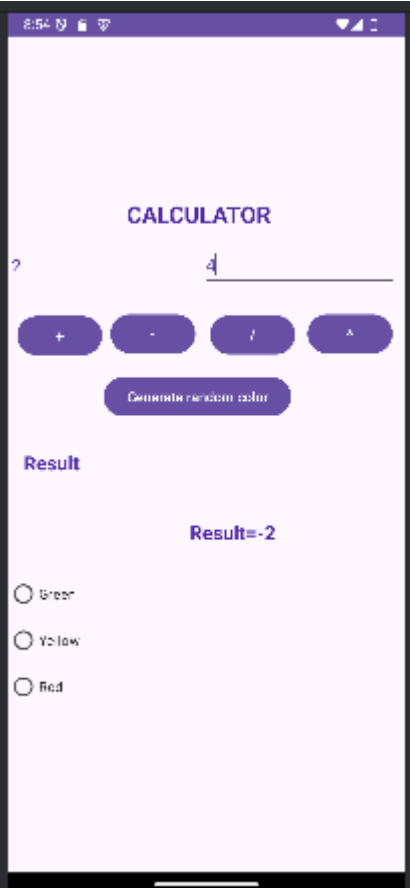
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1)
activity .xml

```xml
<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:id="@+id/main" android:layout_width="match_parent"
  android:layout_height="match_parent" android:background="@color/yellow"
  android:orientation="vertical" tools:context=".MainActivity">
  <TextView android:layout_width="match_parent"
    android:layout_height="83dp"
    android:gravity="center"
    android:text="HELLO WORLD!"
    android:layout_marginTop="250sp"
    android:textColor="@color/black"
    android:textSize="20sp"/>
  <LinearLayout android:layout_width="match_parent"
    android:layout_height="628dp"
    android:background="@color/yellow"
    android:orientation="vertical">
    <ImageView android:id="@+id/imageView6"
      android:layout_width="match_parent"
      android:layout_height="wrap_content"
      app:srcCompat="@drawable/download"/>
  </LinearLayout>
</LinearLayout>
```

java

```java
package com.example.lab1;

import android.os.Bundle;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {

  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    EdgeToEdge.enable(this);
    setContentView(R.layout.activity_main);
    ViewCompat.setOnApplyWindowInsetsListener(findViewById(R.id.main), (v, insets) -> {
      Insets systemBars = insets.getInsets(WindowInsetsCompat.Type.systemBars());
      v.setPadding(systemBars.left, systemBars.top, systemBars.right, systemBars.bottom);
      return insets;
    });
```
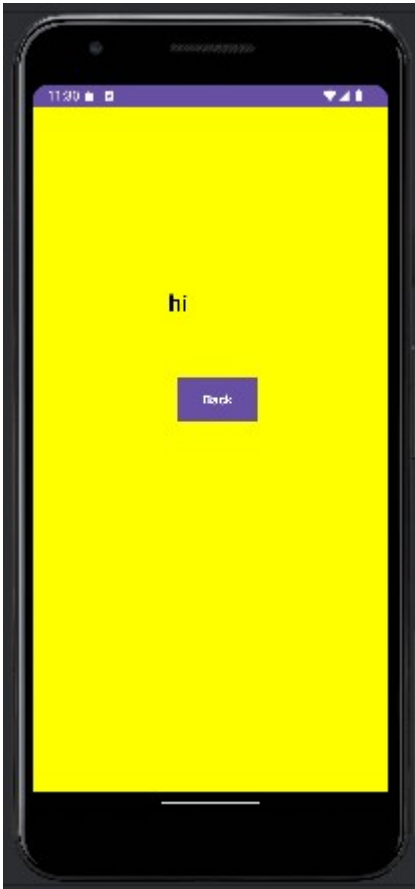
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```
  }
}
```

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3 output

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4) display user profile

activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/light_yellow"
    tools:context=".MainActivity">

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Welcome To User Profile Application"
        android:textSize="25dp"
        android:textColor="@color/black"
        android:gravity="center"
        android:width="400dp"
        android:height="300dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        android:textStyle="bold"
        app:layout_constraintTop_toTopOf="parent" />

    <Button
        android:id="@+id/button1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:width="100dp"
        android:layout_marginTop="250dp"
        android:layout_marginLeft="150dp"
        android:text="NEXT" />


</RelativeLayout>
```

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activity_main2.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/powder_blue"
    tools:context=".MainActivity">


    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Enter Details To View Profile"
        android:textSize="25dp"
        android:textColor="@color/black"
        android:gravity="center"
        android:width="400dp"
        android:height="300dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />

    <EditText
        android:id="@+id/editTextText1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:layout_marginTop="200dp"
        android:ems="10"
        android:inputType="text"
        android:hint="Name:"
        android:textColorHint="@color/black" />

    <EditText
        android:id="@+id/editTextText2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:layout_marginTop="260dp"
        android:ems="10"
        android:inputType="text"
        android:hint="Email"
        android:textColorHint="@color/black" />

    <EditText
        android:id="@+id/editTextText3"
```

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```xml
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:layout_marginTop="320dp"
        android:ems="10"
        android:inputType="text"
        android:hint="Moblie No"
        android:textColorHint="@color/black"/>

    <EditText
        android:id="@+id/editTextText4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginLeft="100dp"
        android:layout_marginTop="380dp"
        android:ems="10"
        android:inputType="text"
        android:hint="Address"
        android:textColorHint="@color/black"/>

    <Button
        android:id="@+id/button2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="500dp"
        android:layout_marginLeft="150dp"
        android:text="Button" />


</RelativeLayout>
```

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activity.main4.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/indian_red"
    tools:context=".MainActivity3">




    <TextView
        android:id="@+id/textview1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="text"
        android:layout_marginLeft="100dp"
        android:layout_marginTop="250dp"
        android:hint="Name:"
        android:textSize="20dp"
        android:textColorHint="@color/black"/>

    <TextView
        android:id="@+id/textview2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="text"
        android:layout_marginLeft="100dp"
        android:layout_marginTop="300dp"
        android:hint="Email:"
        android:textSize="20dp"
        android:textColorHint="@color/black"/>


    <TextView
        android:id="@+id/textview3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:ems="10"
        android:inputType="text"
        android:layout_marginLeft="100dp"
        android:layout_marginTop="360dp"
        android:hint="Moblie No"
        android:textSize="20dp"
        android:textColorHint="@color/black"/>
```

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```xml
<TextView
    android:id="@+id/textview4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="100dp"
    android:layout_marginTop="420dp"
    android:ems="10"
    android:inputType="text"
    android:hint="Address"
    android:textSize="20dp"
    android:textColorHint="@color/black"/>

<Button
    android:id="@+id/button2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginLeft="150dp"
    android:layout_marginTop="530dp"
    android:textSize="20dp"
    android:text="Home" />

<ImageView
    android:id="@+id/imageView5"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    app:srcCompat="@drawable/images"
    android:layout_marginLeft="100dp"
    android:layout_marginTop="10dp"
    android:alpha="0.9"/>


</RelativeLayout>
```

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MainActivity.java

```java
package com.example.test41;

import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity extends AppCompatActivity {


    Button btn2;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        btn2=findViewById(R.id.button1);
        String text=getIntent().getStringExtra("data");
        btn2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent i =new Intent(MainActivity.this, MainActivity2.class);
                startActivity(i);
            }
        });


    }
}
```

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MainActivity2.java

```java
package com.example.test41;

import android.annotation.SuppressLint;
import android.content.Intent;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity2 extends AppCompatActivity {

    TextView ed1,ed2,ed3,ed4;
    String tag="event";
    Button btn1;
    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);
        Log.d(tag,"hello");
        ed1=findViewById(R.id.editTextText1);
        ed2=findViewById(R.id.editTextText2);
        ed3=findViewById(R.id.editTextText3);
        ed4=findViewById(R.id.editTextText4);
        btn1=findViewById(R.id.button2);
        btn1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                Intent i=new Intent(MainActivity2.this, MainActivity3.class);
                String text1=ed1.getText().toString();
                i.putExtra("data1",text1);
                String text2=ed2.getText().toString();
                i.putExtra("data2",text2);
                String text3=ed3.getText().toString();
                i.putExtra("data3",text3);
                String text4=ed4.getText().toString();
                i.putExtra("data4",text4);
                startActivity(i);
            }
        });
```
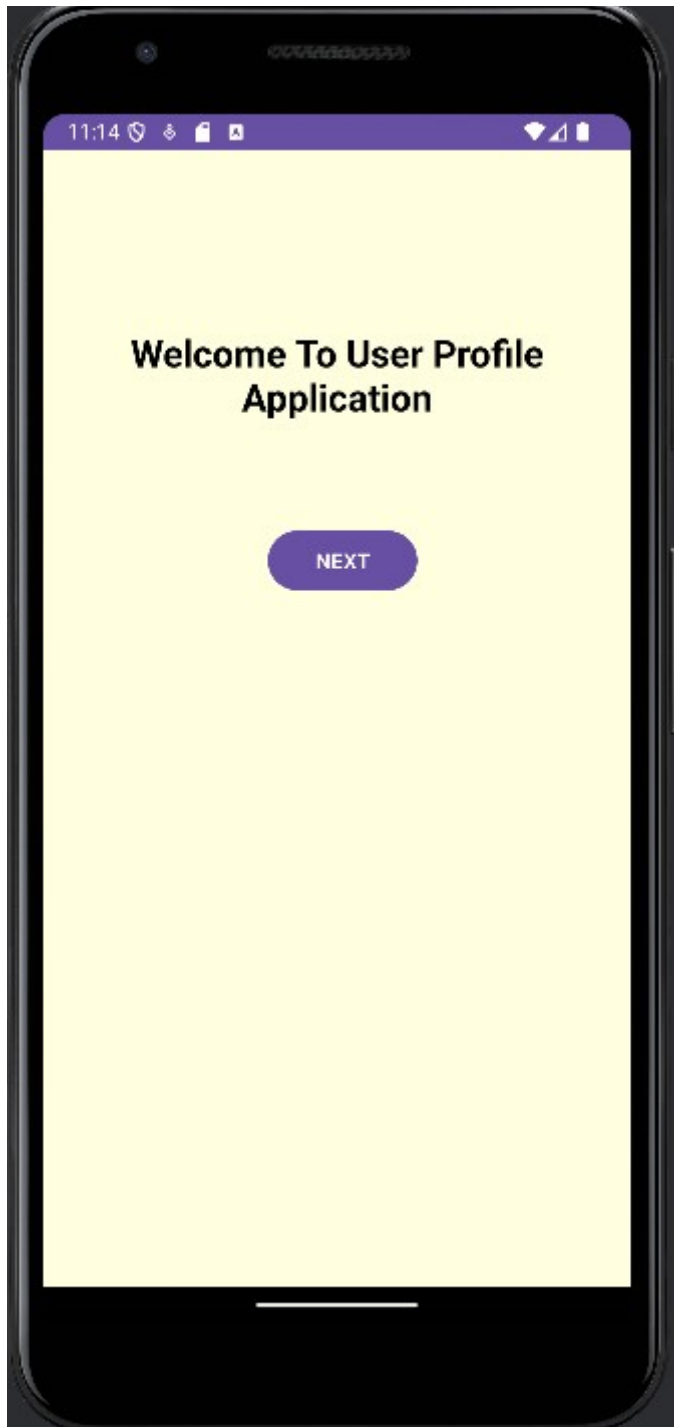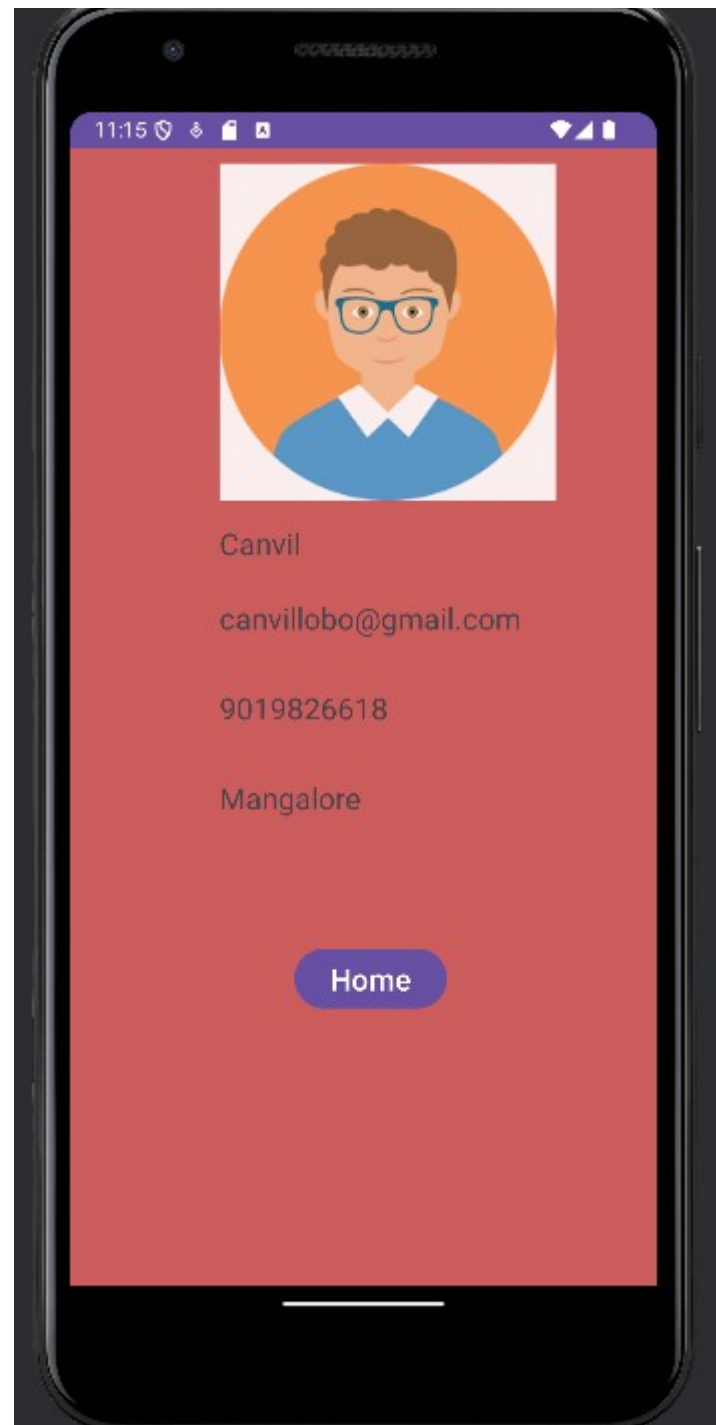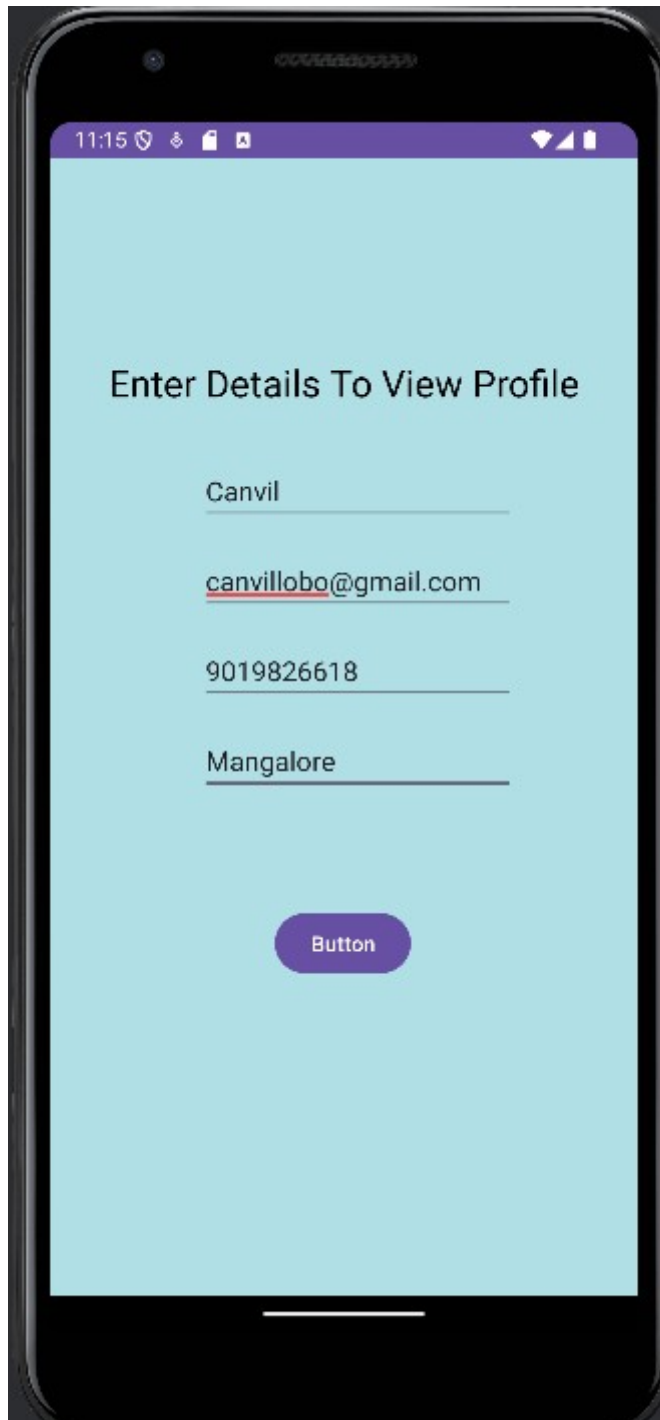
```
    }

 }
```

MainActivity3.java

```java
package com.example.test41;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;

import androidx.activity.EdgeToEdge;
import androidx.appcompat.app.AppCompatActivity;
import androidx.core.graphics.Insets;
import androidx.core.view.ViewCompat;
import androidx.core.view.WindowInsetsCompat;

public class MainActivity3 extends AppCompatActivity {

  TextView ed1,ed2,ed3,ed4;

  Button btn2;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main4);
    ed1=findViewById(R.id.textview1);
    ed2=findViewById(R.id.textview2);
    ed3=findViewById(R.id.textview3);
    ed4=findViewById(R.id.textview4);
    btn2=findViewById(R.id.button2);
    String text1=getIntent().getStringExtra("data1");
    ed1.setText(text1);
    String text2=getIntent().getStringExtra("data2");
    ed2.setText(text2);
    String text3=getIntent().getStringExtra("data3");
    ed3.setText(text3);
    String text4=getIntent().getStringExtra("data4");
    ed4.setText(text4);
    btn2.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View view) {
        Intent i =new Intent(MainActivity3.this,MainActivity.class);
        startActivity(i);
      }
    });
```

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```
    }
}
```

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Database prog 4 (helpline)

activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    xmlns:tools="http://schemas.android.com/tools"
    android:padding="16dp"
    android:background="@drawable/oww8w"
    tools:context=".MainActivity">


    <TextView
        android:id="@+id/title"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Enter Details"
        android:textSize="25dp"
        android:textStyle="bold"
        android:textColor="@color/black"
        android:gravity="center"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="50dp" />



    <EditText
        android:id="@+id/name"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@id/title"
        android:layout_marginStart="100dp"
        android:layout_marginTop="57dp"
        android:textStyle="bold"
        android:ems="10"
        android:hint="Enter the Name"
        android:inputType="textPersonName"
        android:textColorHint="@color/black" />

    <EditText
        android:id="@+id/mobile"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="100dp"
        android:layout_below="@id/name"
        android:layout_marginTop="20dp"
        android:textStyle="bold"
        android:ems="10"
        android:hint="Enter the Mobile No"
```

```xml
        android:inputType="phone"
        android:textColorHint="@color/black" />


    <EditText
        android:id="@+id/dob"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="100dp"
        android:layout_below="@id/mobile"
        android:layout_marginTop="20dp"
        android:ems="10"
        android:textStyle="bold"
        android:hint="Enter the Date of Birth"
        android:inputType="date"
        android:textColorHint="@color/black" />

    <EditText
        android:id="@+id/address"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="100dp"
        android:layout_below="@id/dob"
        android:layout_marginTop="20dp"
        android:textStyle="bold"
        android:ems="10"
        android:hint="Enter the Address"
        android:inputType="textPostalAddress"
        android:textColorHint="@color/black" />



    <Button
        android:id="@+id/insert"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="400dp"
        android:layout_marginLeft="100dp"
        android:backgroundTint="@color/black"
        android:text="Insert" />

    <Button
        android:id="@+id/view"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginTop="400dp"
        android:layout_xmlmarginLeft="200dp"
        android:backgroundTint="@color/black"
        android:text="View" />
```

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```
</RelativeLayout>
```

mydbhelpler.java

```java
package com.example.db4;

import android.content.ContentValues;
import android.content.Context;
import android.database.Cursor;
import android.database.sqlite.SQLiteDatabase;
import android.database.sqlite.SQLiteOpenHelper;

import androidx.annotation.Nullable;

public class mydbhelper extends SQLiteOpenHelper {

    private static final String DATABASE_NAME = "userdb.db";
    private static final int DATABASE_VERSION = 1;
    private static final String TABLE_NAME = "usertable";

    private static final String COLUMN_NAME = "name";
    private static final String COLUMN_NO = "mobile";
    private static final String COLUMN_DOB = "dob";
    private static final String COLUMN_CITY = "address";

    public mydbhelper(@Nullable Context context) {
        super(context, DATABASE_NAME, null, DATABASE_VERSION);
    }

    @Override
    public void onCreate(SQLiteDatabase db) {
        // Corrected CREATE TABLE query
        String CREATE_TABLE = "CREATE TABLE " + TABLE_NAME + " (" +
                COLUMN_NAME + " TEXT, " +
                COLUMN_NO + " TEXT, " +
                COLUMN_DOB + " TEXT, " +
                COLUMN_CITY + " TEXT)";
        db.execSQL(CREATE_TABLE);
    }

    @Override
    public void onUpgrade(SQLiteDatabase db, int oldVersion, int newVersion) {
        // Drop the table if it exists and recreate it
        db.execSQL("DROP TABLE IF EXISTS " + TABLE_NAME);
        onCreate(db);
    }

    // Method to insert data
    public boolean insertdata(String name, String mobile, String address, String dob) {
        SQLiteDatabase db = this.getWritableDatabase();
```

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```java
        ContentValues values = new ContentValues();
        values.put(COLUMN_NAME, name);
        values.put(COLUMN_NO, mobile);
        values.put(COLUMN_CITY, address);
        values.put(COLUMN_DOB, dob);

        long result = db.insert(TABLE_NAME, null, values);
        return result != -1; // return true if insert is successful, false otherwise
    }

    // Method to retrieve data


    public Cursor getdata() {
        SQLiteDatabase db = this.getWritableDatabase();
        return db.rawQuery("SELECT * FROM " + TABLE_NAME, null);
    }
}
```

MainActivity.java

```java
package com.example.db4;

import android.annotation.SuppressLint;
import android.database.Cursor;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;

import androidx.appcompat.app.AlertDialog;
import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    EditText name, mobile, dob, address;
    Button insert, view;

    @SuppressLint("MissingInflatedId")
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        // Initialize the views
        name = findViewById(R.id.name);
        mobile = findViewById(R.id.mobile);
        dob = findViewById(R.id.dob);
```

```java
address = findViewById(R.id.address);
insert = findViewById(R.id.insert);
view = findViewById(R.id.view);

mydbhelper db = new mydbhelper(this);

// Insert button onClick listener
insert.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        String Username = name.getText().toString().trim();
        String Userno = mobile.getText().toString().trim();
        String Userdob = dob.getText().toString().trim();
        String Useradd = address.getText().toString().trim();

        // Check for empty fields
        if (Username.isEmpty() || Userno.isEmpty() || Userdob.isEmpty() || Useradd.isEmpty()) {
            Toast.makeText(MainActivity.this, "Please fill all fields", Toast.LENGTH_SHORT).show();
            return;
        }

        boolean checkinsert = db.insertdata(Username, Userno, Userdob, Useradd);
        if (checkinsert) {
            Toast.makeText(MainActivity.this, "User data inserted", Toast.LENGTH_SHORT).show();
        } else {
            Toast.makeText(MainActivity.this, "User data not inserted", Toast.LENGTH_SHORT).show();
        }
    }
});

// View button onClick listener
view.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        Cursor res = db.getdata();
        if (res.getCount() == 0) {
            Toast.makeText(MainActivity.this, "No entry exists", Toast.LENGTH_SHORT).show();
            return;
        }

        StringBuffer buffer = new StringBuffer();
        while (res.moveToNext()) {
            buffer.append("Name: " + res.getString(0) + "\n");
            buffer.append("Mobile: " + res.getString(1) + "\n");
            buffer.append("DOB: " + res.getString(2) + "\n");
            buffer.append("Address: " + res.getString(3) + "\n\n");
        }

        AlertDialog.Builder builder = new AlertDialog.Builder(MainActivity.this);
        builder.setCancelable(true);
        builder.setTitle("User Entries");
```
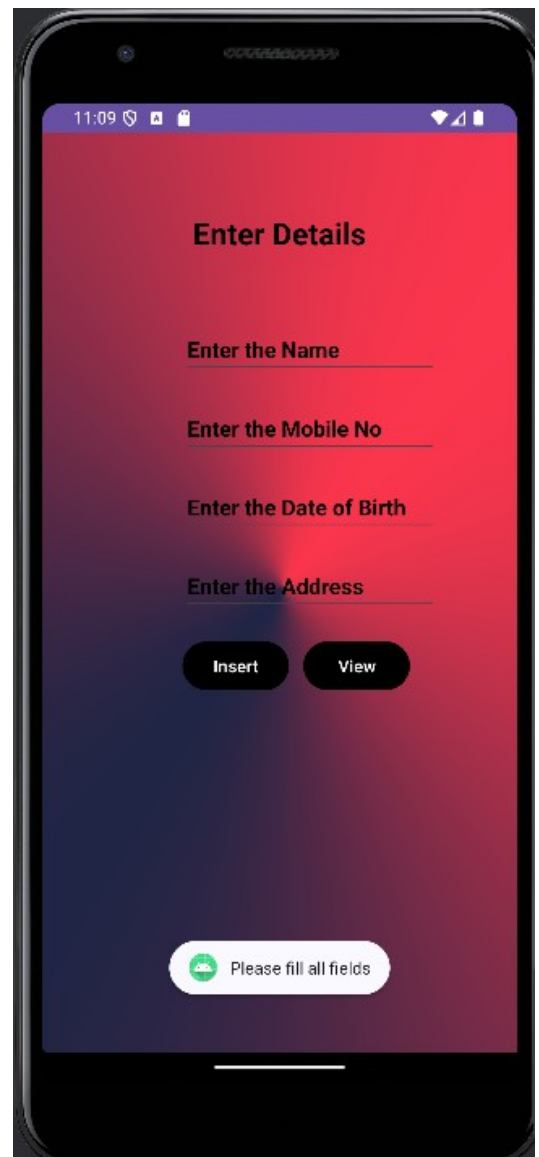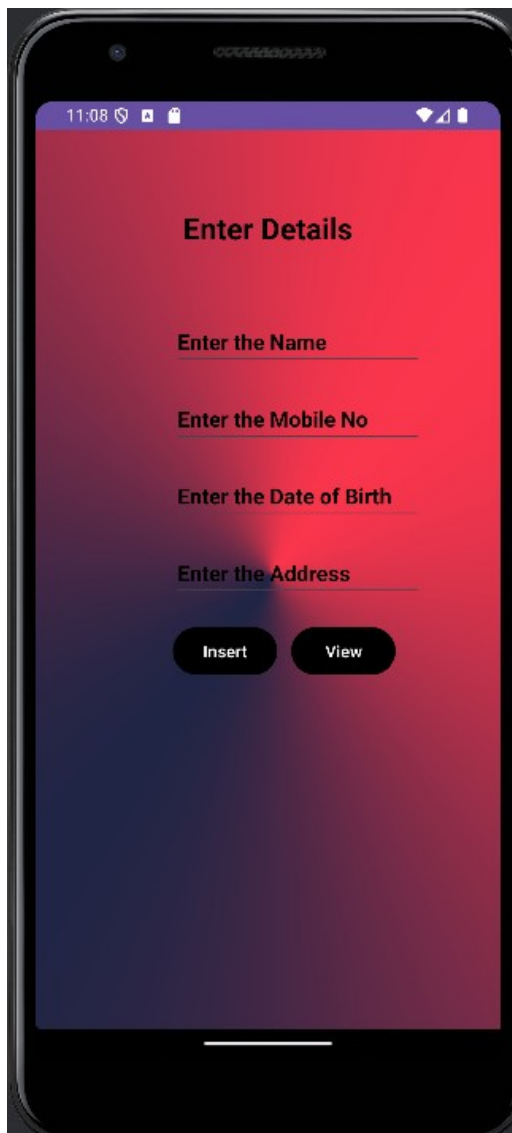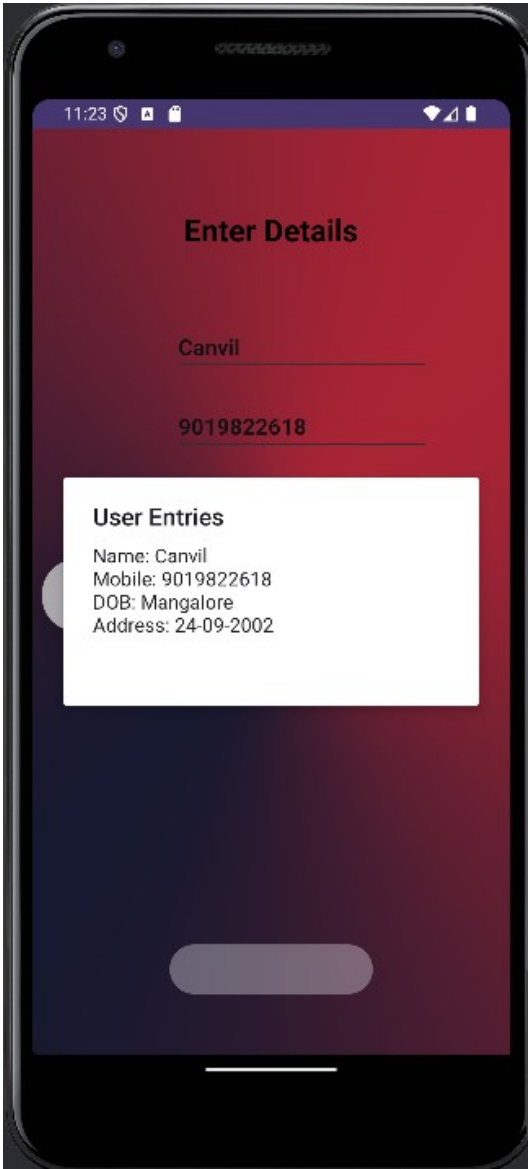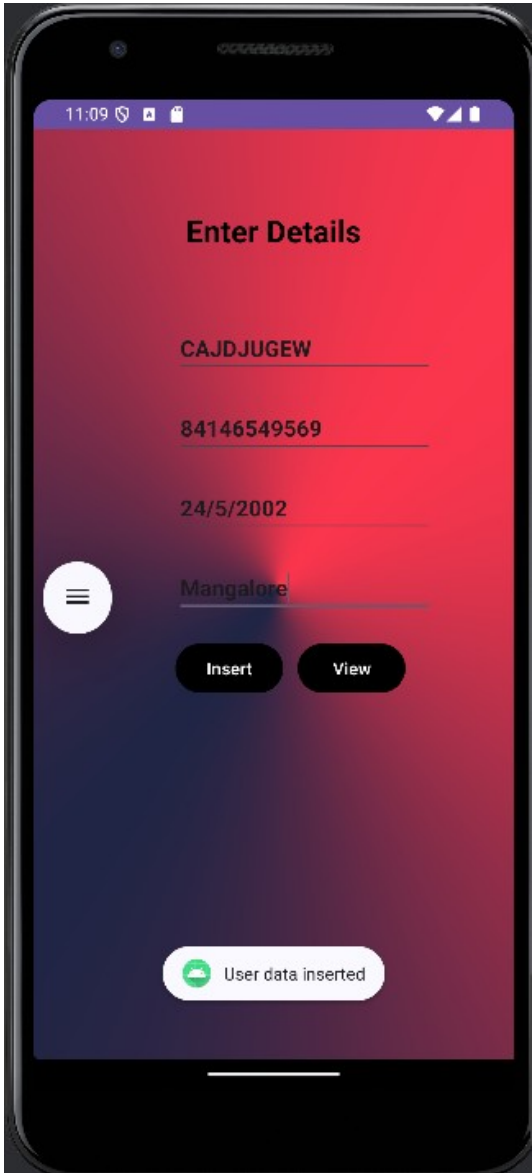
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```
        builder.setMessage(buffer.toString());
        builder.show();
      }
    });
  }
}
```

OUTPUT:-

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11)graphics

activity.main.xml

```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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/pale_green"
    tools:context=".MainActivity">

    <TextView
        android:id="@+id/textView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=""
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.498"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.387" />

    <Button
        android:id="@+id/Bt1"
        android:layout_width="166dp"
        android:layout_height="78dp"
        android:backgroundTint="@color/black"
        android:text="Graphics"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.321" />

    <Button
        android:id="@+id/Bt2"
        android:layout_width="166dp"
        android:layout_height="81dp"
        android:layout_marginBottom="256dp"
        android:backgroundTint="@color/black"
        android:text="Animation"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.51"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/textView" />
```

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```
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java

```java
package com.example.test11graphics;

import android.content.Intent;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity extends AppCompatActivity {

    Button Bt1;
    Button Bt2;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        Bt1 = findViewById(R.id.Bt1);
        Bt2 = findViewById(R.id.Bt2);

        Bt1.setOnClickListener(view -> {
            Intent i = new Intent(MainActivity.this, MainActivity2.class);
            startActivity(i);
        });

        Bt2.setOnClickListener(view -> {
            Intent i = new Intent(MainActivity.this, MainActivity3.class);
            startActivity(i);
        });
    }
}
```

activity_main2.xml

```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:id="@+id/main"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:background="@color/black"
```

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```xml
    tools:context=".MainActivity">

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="403dp"
        android:layout_height="433dp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="1.0"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent"
        app:layout_constraintVertical_bias="0.164"
        tools:srcCompat="@tools:sample/avatars" />

    <Button
        android:id="@+id/button3"
        android:layout_width="128dp"
        android:layout_height="71dp"
        android:text="@string/rectangle"
        android:textSize="16sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.21"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/imageView"
        app:layout_constraintVertical_bias="0.125"
        tools:ignore="DuplicateIds" />

    <Button
        android:id="@+id/button4"
        android:layout_width="125dp"
        android:layout_height="63dp"
        android:text="Square"
        android:textSize="16sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.818"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/imageView"
        app:layout_constraintVertical_bias="0.123" />

    <Button
        android:id="@+id/button5"
        android:layout_width="121dp"
        android:layout_height="66dp"
        android:layout_marginTop="128dp"
        android:text="Circle"
        android:textSize="16sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.21"
```

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```xml
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/imageView"
        app:layout_constraintVertical_bias="0.0" />

    <Button
        android:id="@+id/button6"
        android:layout_width="119dp"
        android:layout_height="65dp"
        android:layout_marginTop="128dp"
        android:text="@string/line"
        android:textSize="16sp"
        app:layout_constraintBottom_toBottomOf="parent"
        app:layout_constraintEnd_toEndOf="parent"
        app:layout_constraintHorizontal_bias="0.801"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toBottomOf="@+id/imageView"
        app:layout_constraintVertical_bias="0.0" />
</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity2.java

```java
package com.example.test11graphics;

import android.graphics.Bitmap;
import android.graphics.Canvas;
import android.graphics.Color;
import android.graphics.Paint;
import android.os.Bundle;
import android.widget.Button;
import android.widget.ImageView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity2 extends AppCompatActivity {
    ImageView img;
    Button rect, squ, cir, line;
    Bitmap bp;
    Canvas c;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main2);

        img = findViewById(R.id.imageView);
        rect = findViewById(R.id.button3);
        squ = findViewById(R.id.button4);
        cir = findViewById(R.id.button5);
        line = findViewById(R.id.button6);

        bp = Bitmap.createBitmap(520, 1200, Bitmap.Config.ARGB_8888);
```

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```java
        img.setImageBitmap(bp);
        c = new Canvas(bp);

        rect.setOnClickListener(v -> {
            Paint p = new Paint();
            p.setColor(Color.BLUE);
            p.setTextSize(50);
            c.drawText("Rectangle", 10, 150, p);
            c.drawRect(30, 200, 200, 600, p);
        });

        squ.setOnClickListener(v -> {
            Paint p1 = new Paint();
            p1.setColor(Color.RED);
            p1.setTextSize(50);
            c.drawText("Square", 300, 150, p1);
            c.drawRect(250, 200, 480, 400, p1);
        });

        cir.setOnClickListener(v -> {
            Paint p2 = new Paint();
            p2.setColor(Color.MAGENTA);
            p2.setTextSize(50);
            c.drawText("Circle", 70, 700, p2);
            c.drawCircle(130, 860, 120, p2);
        });

        line.setOnClickListener(v -> {
            Paint p3 = new Paint();
            p3.setColor(Color.WHITE);
            p3.setTextSize(50);
            p3.setStrokeWidth(20);
            c.drawText("Line", 350, 700, p3);
            c.drawLine(350, 800, 800, 800, p3);
        });
    }
}
```

activity_main3.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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="@color/indian_red"
    tools:context=".MainActivity3">

    <!-- ImageView in the center top -->
```

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```xml
<ImageView
    android:id="@+id/imageView2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:src="@drawable/download"
    android:layout_marginTop="32dp"
    android:layout_centerHorizontal="true"
    android:layout_alignParentTop="true"
    android:contentDescription="TODO" />

<!-- Fade Button (Left side, below ImageView) -->
<Button
    android:id="@+id/button7"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/fad"
    android:layout_marginStart="60dp"
    android:layout_marginTop="92dp"
    android:backgroundTint="@color/black"
    android:layout_below="@id/imageView2"
    android:layout_alignParentStart="true" />

<!-- Rotate Button (Right side, below ImageView) -->
<Button
    android:id="@+id/button8"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/rotat"
    android:layout_marginEnd="76dp"
    android:layout_marginTop="92dp"
    android:backgroundTint="@color/black"
    android:layout_below="@id/imageView2"
    android:layout_alignParentEnd="true" />

<!-- Zoom Button (Left side, below Fade Button) -->
<Button
    android:id="@+id/button9"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="@string/zoo"
    android:layout_marginStart="60dp"
    android:layout_marginTop="132dp"
    android:backgroundTint="@color/black"
    android:layout_below="@id/button7"
    android:layout_alignParentStart="true" />

<!-- Blink Button (Right side, below Rotate Button) -->
<Button
    android:id="@+id/button10"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
```

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```xml
    android:text="@string/blin"
    android:layout_marginEnd="76dp"
    android:layout_marginTop="132dp"
    android:backgroundTint="@color/black"
    android:layout_below="@id/button8"
    android:layout_alignParentEnd="true" />

</RelativeLayout>
```

MainActivity3.java

```java
package com.example.test11graphics;

import android.os.Bundle;
import android.view.animation.Animation;
import android.view.animation.AnimationUtils;
import android.widget.Button;
import android.widget.ImageView;
import android.widget.TextView;

import androidx.appcompat.app.AppCompatActivity;

public class MainActivity3 extends AppCompatActivity {

    Button fadeBtn, rotateBtn, zoomBtn, blinkBtn;
    ImageView textView;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main3);

        textView = findViewById(R.id.imageView2);
        fadeBtn = findViewById(R.id.button7);
        rotateBtn = findViewById(R.id.button8);
        zoomBtn = findViewById(R.id.button9);
        blinkBtn = findViewById(R.id.button10);

        // Fade Animation
        fadeBtn.setOnClickListener(v -> {
            Animation fade = AnimationUtils.loadAnimation(getApplicationContext(), R.anim.fade);
            textView.startAnimation(fade);
        });

        // Rotate Animation
        rotateBtn.setOnClickListener(v -> {
            Animation rotate = AnimationUtils.loadAnimation(getApplicationContext(), R.anim.rotate);
            textView.startAnimation(rotate);
        });
```

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```java
    // Zoom Animation
    zoomBtn.setOnClickListener(v -> {
        Animation zoom = AnimationUtils.loadAnimation(getApplicationContext(), R.anim.zoom);
        textView.startAnimation(zoom);
    });

    // Blink Animation
    blinkBtn.setOnClickListener(v -> {
        Animation blink = AnimationUtils.loadAnimation(getApplicationContext(), R.anim.blink);
        textView.startAnimation(blink);
    });
  }
}
```

blink.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<alpha xmlns:android="http://schemas.android.com/apk/res/android"
  android:duration="300"
  android:fromAlpha="1.0"
  android:toAlpha="0.0"
  android:repeatCount="infinite"
  android:repeatMode="reverse" />
```

rotate.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<rotate xmlns:android="http://schemas.android.com/apk/res/android"
  android:duration="2000"
  android:fromDegrees="0"
  android:pivotX="50%"
  android:pivotY="50%"
  android:toDegrees="360" />
```

fade.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<alpha xmlns:android="http://schemas.android.com/apk/res/android"
  android:duration="2000"
  android:fromAlpha="1.0"
  android:toAlpha="0.0" />
```

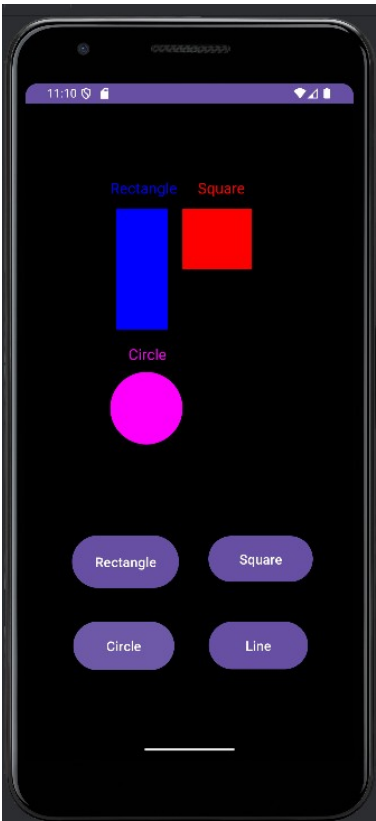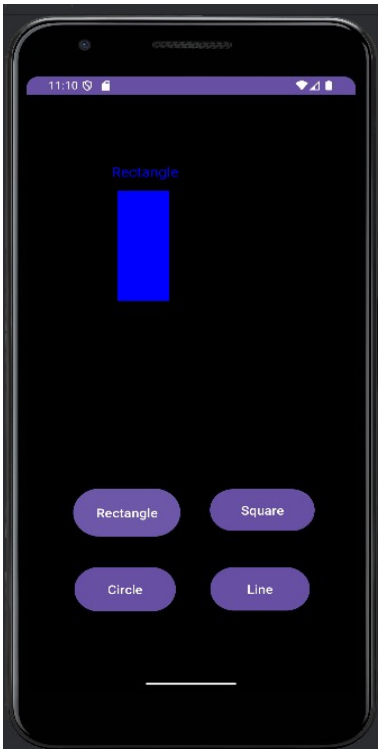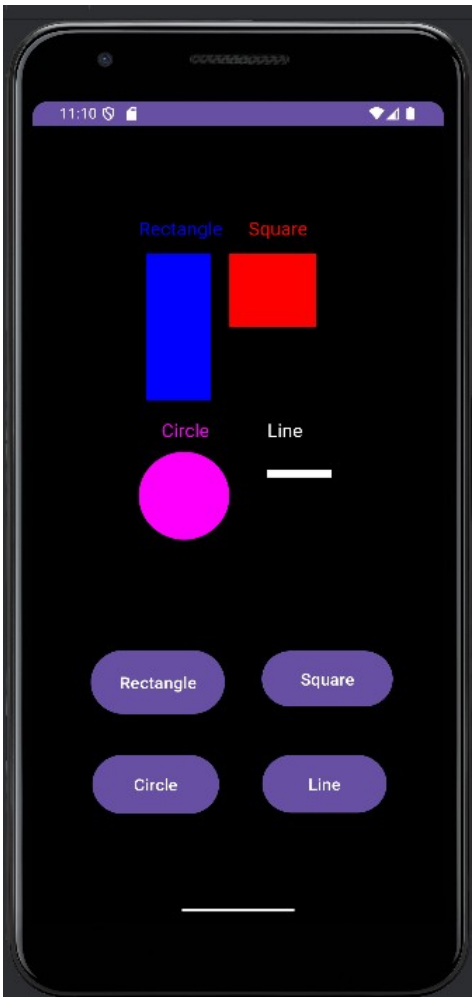### zoom.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<scale xmlns:android="http://schemas.android.com/apk/res/android"
  android:duration="2000"
```
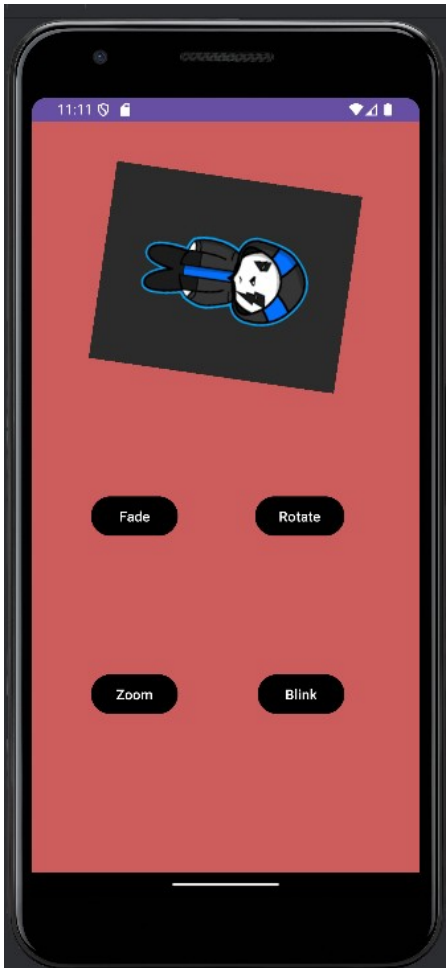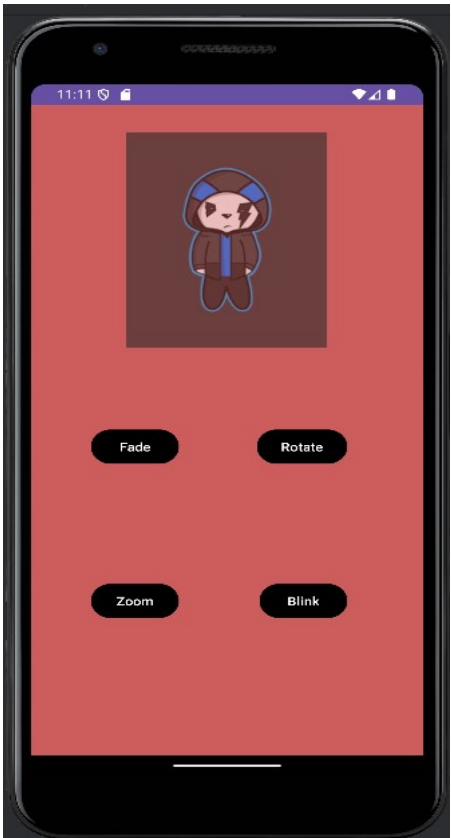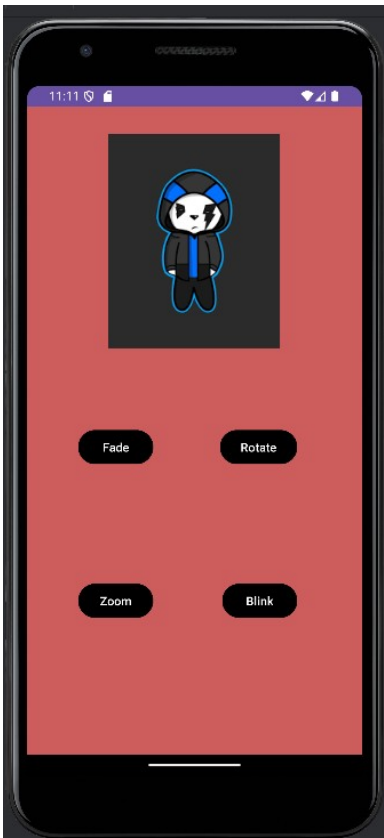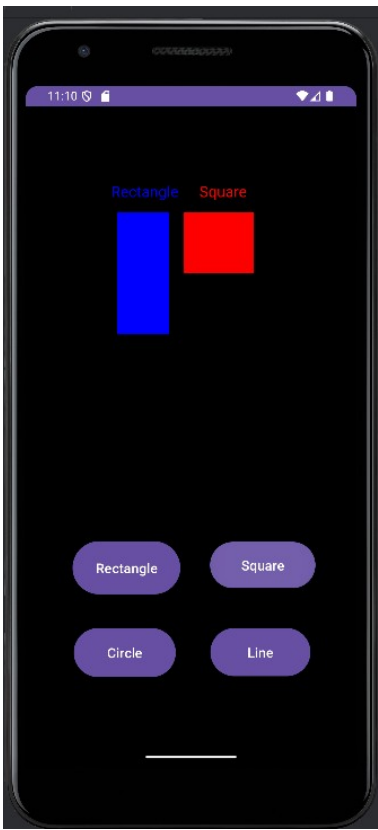
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```
android:fromXScale="1.0"
android:fromYScale="1.0"
android:toXScale="2.0"
android:toYScale="2.0"
android:pivotX="50%"
android:pivotY="50%" />
```

Output:-

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