### **Mobile Application Development DA-1**

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#### L23+L24

### 1)Simple Calculator

activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  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:orientation="vertical"
  tools:context=".MainActivity">
  <ImageView
    android:id="@+id/imageView3"
    android:layout width="150dp"
    android:layout height="100dp"
    android:layout gravity="center"
    android:layout marginTop="50dp"
    app:srcCompat="@drawable/calculator" />
  <TextView
    android:id="@+id/textView3"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:layout marginTop="20dp"
    android:text="@string/calculator"
    android:textAllCaps="true"
    android:textSize="20sp"
```

```
android:textStyle="bold" />
<EditText
  android:id="@+id/et1"
  android:layout width="232dp"
  android:layout height="66dp"
  android:layout marginStart="80dp"
  android:layout marginTop="30dp"
  android:ems="10"
  android:hint="@string/enter the no 1"
  android:inputType="text"
  android:textStyle="bold" />
<EditText
  android:id="@+id/et2"
  android:layout_width="237dp"
  android:layout height="59dp"
  android:layout marginStart="80dp"
  android:layout marginTop="30dp"
  android:ems="10"
  android:hint="@string/enter the no 2"
  android:inputType="text"
  android:textStyle="bold" />
<Button
  android:id="@+id/btadd"
  android:layout width="200dp"
  android:layout height="wrap content"
  android:layout marginStart="100dp"
  android:layout marginTop="10dp"
  android:text="@string/add" />
<Button
  android:id="@+id/btsub"
  android:layout width="200dp"
  android:layout height="wrap content"
  android:layout marginStart="100dp"
```

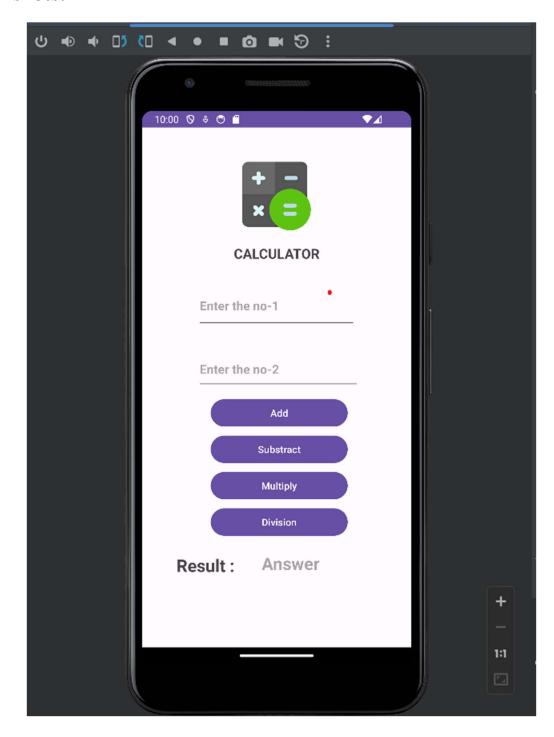
```
android:layout marginTop="5dp"
  android:text="@string/substract" />
<Button
  android:id="@+id/btmul"
  android:layout width="200dp"
  android:layout height="wrap content"
  android:layout marginStart="100dp"
  android:layout marginTop="5dp"
  android:text="@string/multiply" />
<Button
  android:id="@+id/btdiv"
  android:layout width="200dp"
  android:layout height="wrap content"
  android:layout marginStart="100dp"
  android:layout marginTop="5dp"
  android:text="@string/division" />
<LinearLayout
  android:layout width="match parent"
  android:layout height="wrap content"
  android:orientation="horizontal">
  <TextView
    android:id="@+id/textView4"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginStart="50dp"
    android:layout marginTop="23dp"
    android:text="@string/result"
    android:textSize="25sp"
    android:textStyle="bold" />
  <TextView
    android:id="@+id/tvans"
    android:layout width="wrap content"
```

```
android:layout height="wrap content"
       android:layout marginStart="40dp"
       android:layout marginTop="20dp"
       android:hint="@string/answer"
       android:textSize="25sp"
      android:textStyle="bold" />
  </LinearLayout>
</LinearLayout>
MainActivity.java
package com.example.myfirstapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
public class MainActivity extends AppCompatActivity {
  EditText et1,et2;
  TextView tvans;
  Button btadd,btsub,btmul,btdiv;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main);
    et1=findViewById(R.id.et1);
```

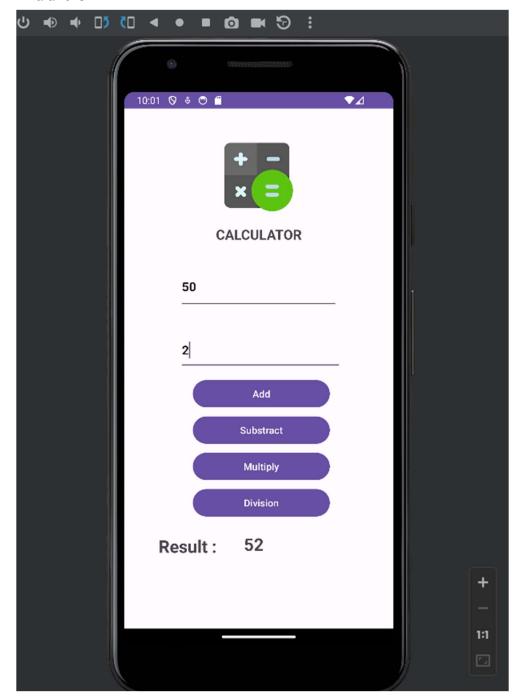
```
et2=findViewById(R.id.et2);
tvans=findViewById(R.id.tvans);
btadd=findViewById(R.id.btadd);
btsub=findViewById(R.id.btsub);
btmul=findViewById(R.id.btmul);
btdiv=findViewById(R.id.btdiv);
btadd.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
     int val1, val2, ans;
     val1=Integer.parseInt(et1.getText().toString());
     val2=Integer.parseInt(et2.getText().toString());
     ans=val1+val2;
     tvans.setText(String.valueOf(ans));
});
btsub.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
     int val1, val2, ans;
     val1=Integer.parseInt(et1.getText().toString());
     val2=Integer.parseInt(et2.getText().toString());
     ans=val1-val2;
     tvans.setText(String.valueOf(ans));
});
btmul.setOnClickListener(new View.OnClickListener() {
  @Override
  public void onClick(View v) {
     int val1, val2, ans;
     val1=Integer.parseInt(et1.getText().toString());
     val2=Integer.parseInt(et2.getText().toString());
     ans=val1*val2:
     tvans.setText(String.valueOf(ans));
```

```
btdiv.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View v) {
        int val1,val2,ans;
        val1=Integer.parseInt(et1.getText().toString());
        val2=Integer.parseInt(et2.getText().toString());
        if(val2==0) {
            tvans.setText("Division by zero is not possible");
            return;
        }
        ans=val1/val2;
        tvans.setText(String.valueOf(ans));
    }
});
```

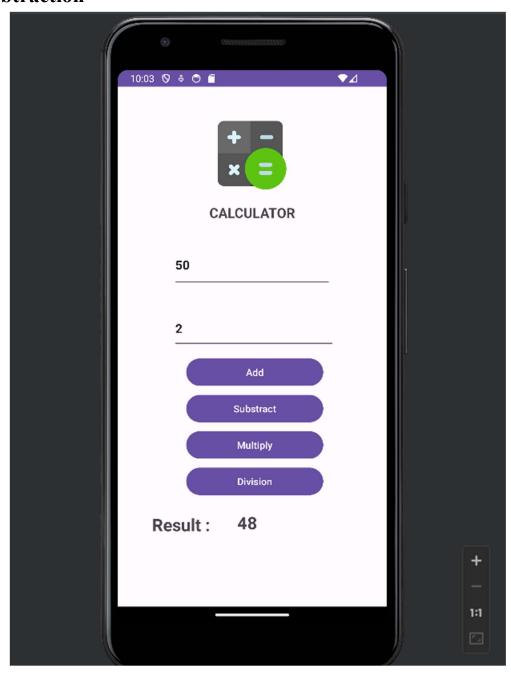
### **Screenshots:**



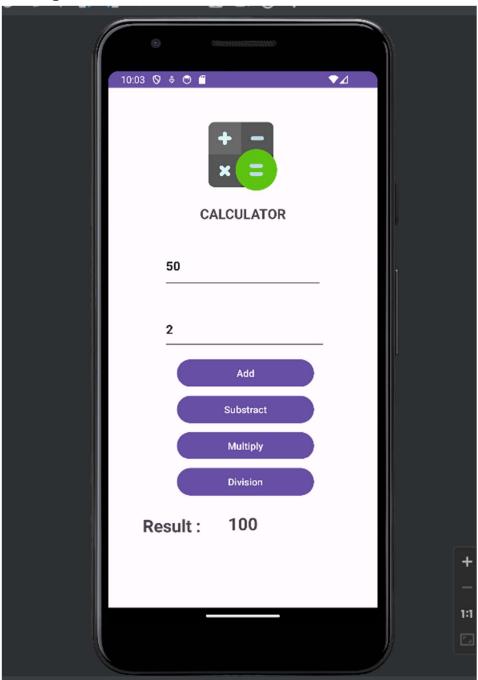
## Addition



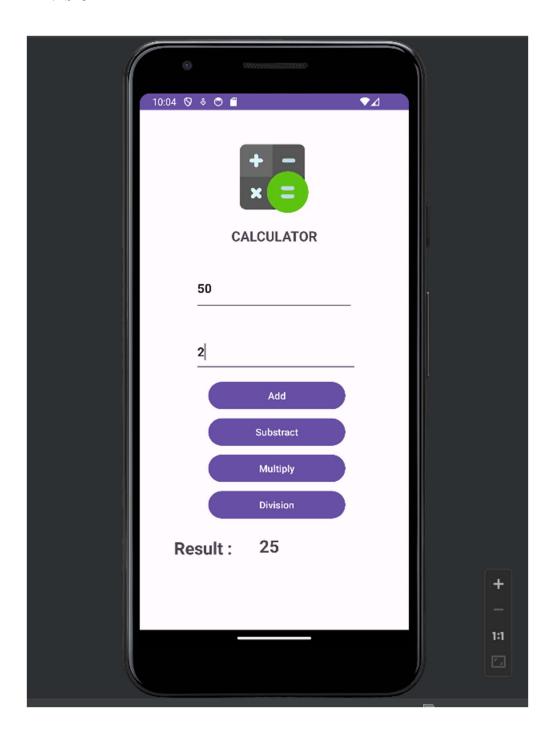
# Subtraction



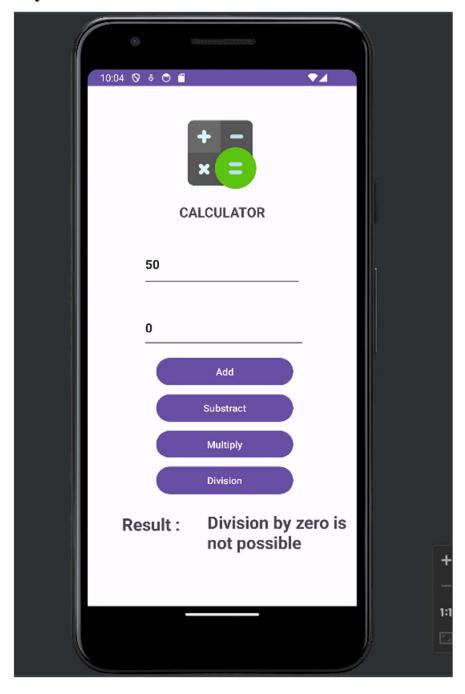
# Multiplication



## **Division**



# Division by Zero



### 2) Login Page:

#### activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</pre>
  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:orientation="vertical"
  android:background="@color/black"
  tools:context=".MainActivity2">
  <TextView
    android:id="@+id/textView5"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:layout marginTop="50dp"
    android:fontFamily="cursive"
    android:text="@string/welcome"
    android:textAlignment="center"
    android:textColor="@color/white"
    android:textSize="50sp" />
  <TextView
    android:id="@+id/textView6"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:layout marginTop="30dp"
    android:fontFamily="sans-serif-condensed"
    android:text="@string/sign in"
    android:textAlignment="center"
    android:textColor="@color/white"
    android:textSize="30sp" />
```

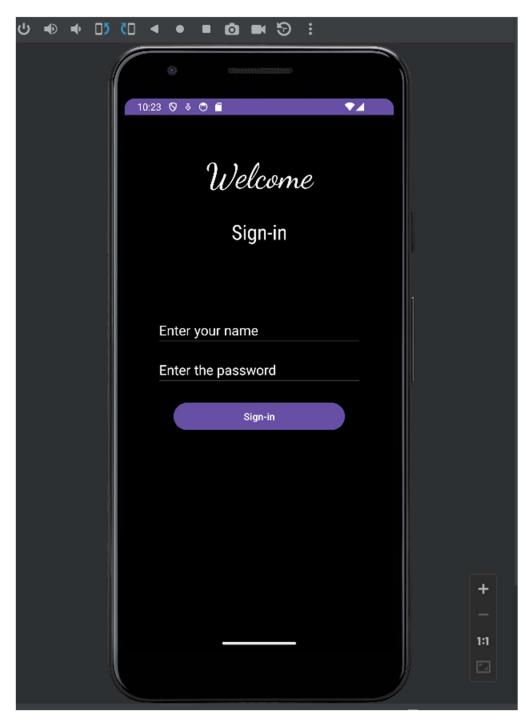
```
<EditText
  android:id="@+id/editText1"
  android:textColorHint="@color/white"
  android:layout marginTop="100dp"
  android:layout gravity="center"
  android:layout width="300dp"
  android:layout height="wrap content"
  android:ems="10"
  android:textColor="@color/white"
  android:hint="@string/enter your name"
  android:textSize="20sp"
  android:inputType="text" />
<EditText
  android:id="@+id/editPassword"
  android:layout marginTop="10dp"
  android:textColorHint="@color/white"
  android:textColor="@color/white"
  android:hint="@string/enter the password"
  android:layout gravity="center"
  android:layout width="300dp"
  android:textSize="20sp"
  android:layout height="wrap content"
  android:ems="10"
  android:inputType="textPassword" />
<Button
  android:id="@+id/button"
  android:layout width="250dp"
  android:layout height="wrap content"
  android:layout gravity="center"
  android:layout marginTop="20dp"
  android:text="@string/sign in btn" />
```

</LinearLayout>

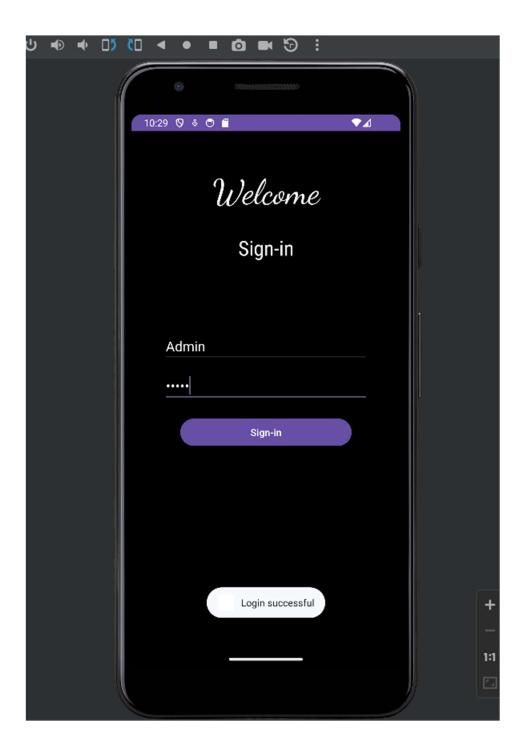
#### Mainactivity.java

```
package com.example.myfirstapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.Toast;
public class MainActivity2 extends AppCompatActivity {
  EditText name, pass;
  Button btn;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main2);
    name=findViewById(R.id.editText1);
    pass=findViewById(R.id.editPassword);
    btn=findViewById(R.id.button);
    btn.setOnClickListener(new View.OnClickListener() {
       @Override
       public void onClick(View view) {
         String username=name.getText().toString();
         String password=pass.getText().toString();
         if(username.equals("Admin") && password.equals("admin")){
           Toast.makeText(MainActivity2.this, "Login successful",
Toast.LENGTH SHORT).show();
```

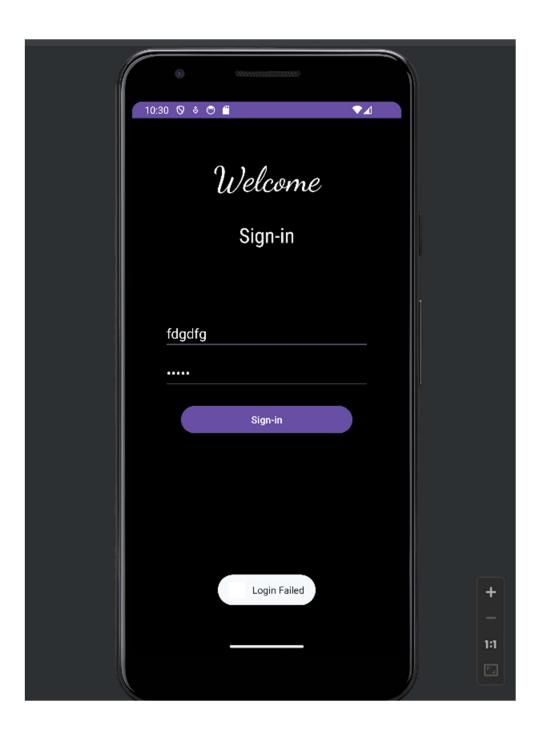
### **Screenshots:**



## **Correct Credentials:**



# **Wrong Credentials:**



#### 3)Form:

### activity\_main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  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:orientation="vertical"
  android:background="@color/black"
  tools:context=".MainActivity3">
  <TextView
    android:id="@+id/textView"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:layout gravity="center"
    android:layout_marginTop="20dp"
    android:fontFamily="serif"
    android:text="Registration Form"
    android:textAlignment="center"
    android:textColor="#E91E63"
    android:textSize="30sp" />
  <LinearLayout
    android:layout gravity="center"
    android:layout marginTop="20sp"
    android:layout width="380sp"
    android:layout height="wrap content"
    android:orientation="vertical"
    android:background="@color/white">
    <LinearLayout
       android:layout width="wrap content"
```

```
android:layout height="wrap content"
  android:orientation="horizontal">
  <TextView
    android:id="@+id/textView2"
    android:layout width="82dp"
    android:layout height="wrap content"
    android:layout marginTop="30sp"
    android:layout marginLeft="20sp"
    android:text="Name:"
    android:textSize="20sp" />
  <EditText
    android:id="@+id/editTextText"
    android:layout marginLeft="20sp"
    android:layout width="160sp"
    android:layout height="wrap content"
    android:layout marginTop="30sp"
    android:ems="10"
    android:hint="Enter your name"
    android:textSize="20sp"
    android:inputType="text" />
</LinearLayout>
<LinearLayout
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:orientation="horizontal">
  <TextView
    android:id="@+id/textView3"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginTop="30sp"
    android:layout marginLeft="20sp"
    android:text="Email:"
    android:textSize="20sp" />
  <EditText
```

```
android:id="@+id/editTextTextEmailAddress"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginLeft="50sp"
    android:layout marginTop="30sp"
    android:hint="Enter your Email"
    android:textSize="20sp" />
</LinearLayout>
<LinearLayout
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:orientation="horizontal">
  <TextView
    android:id="@+id/textView7"
    android:layout width="82dp"
    android:layout height="wrap content"
    android:layout marginTop="30sp"
    android:layout marginLeft="20sp"
    android:text="Regno:"
    android:textSize="20sp" />
  <FditText
    android:id="@+id/editTextText7"
    android:layout marginLeft="20sp"
    android:layout width="160sp"
    android:layout height="wrap content"
    android:layout marginTop="30sp"
    android:ems="10"
    android:hint="Enter your Regno"
    android:textSize="20sp"
    android:inputType="text" />
</LinearLayout>
<LinearLayout
  android:layout width="wrap content"
```

```
android:layout height="wrap content"
android:orientation="horizontal">
<TextView
  android:id="@+id/textView4"
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:layout marginTop="30sp"
  android:layout marginLeft="20sp"
  android:text="Gender:"
  android:textSize="20sp" />
< Radio Group
  android:layout marginLeft="40sp"
  android:id="@+id/RG"
  android:layout width="wrap content"
  android:layout height="wrap content">
  < Radio Button
    android:id="@+id/RB1"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="Male">
  </RadioButton>
  <RadioButton
    android:id="@+id/RB2"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="Female">
  </RadioButton>
  < Radio Button
    android:id="@+id/RB3"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="transgender">
```

```
</RadioButton>
  </RadioGroup>
</LinearLayout>
<LinearLayout
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:orientation="horizontal">
  <TextView
    android:id="@+id/textView6"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginTop="30sp"
    android:layout marginLeft="20sp"
    android:text="DOB:"
    android:textSize="20sp" />
  <TextView
    android:id="@+id/idTVSelectedDate"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:layout above="@id/idBtnPickDate"
    android:layout centerInParent="true"
    android:layout marginTop="30dp"
    android:layout marginLeft="30dp"
    android:gravity="center"
    android:padding="10dp"
    android:text="Date"
    android:textAlignment="center"
    android:textColor="@color/black"
    android:textSize="20sp"
    android:textStyle="bold" />
  <Button
    android:id="@+id/idBtnPickDate"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:layout centerInParent="true"
```

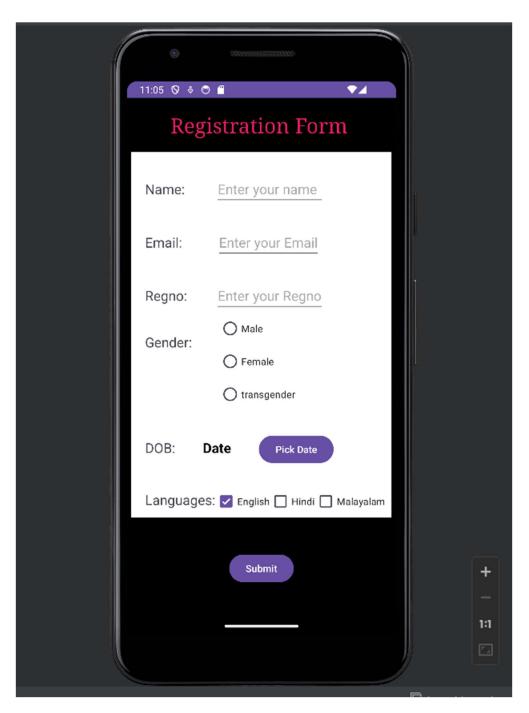
```
android:layout marginTop="30dp"
    android:layout marginLeft="30dp"
    android:text="Pick Date"
    android:textAllCaps="false" />
</LinearLayout>
<LinearLayout
  android:layout width="wrap content"
  android:layout height="wrap content"
  android:orientation="horizontal">
  <TextView
    android:id="@+id/textView5"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:layout marginTop="30sp"
    android:layout marginLeft="20sp"
    android:text="Languages:"
    android:textSize="20sp" />
  <CheckBox
    android:id="@+id/cb1"
    android:layout marginTop="30sp"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="English"
    android:checked="true"/>
  <CheckBox
    android:id="@+id/cb2"
    android:layout marginTop="30sp"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="Hindi"/>
  <CheckBox
    android:id="@+id/cb3"
    android:layout marginTop="30sp"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="Malayalam"/>
```

```
</LinearLayout>
  </LinearLayout>
  <Button
    android:id="@+id/sbt"
    android:layout width="wrap content"
    android:layout height="wrap content"
    android:text="Submit"
    android:layout gravity="center horizontal"
    android:layout marginTop="50sp"/>
</LinearLayout>
MainActivity.java
package com.example.myfirstapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.widget.Toast;
import android.app.DatePickerDialog;
import android.widget.DatePicker;
import java.util.Calendar;
public class MainActivity3 extends AppCompatActivity {
  private Button pickDateBtn;
  private TextView selectedDateTV;
  @Override
```

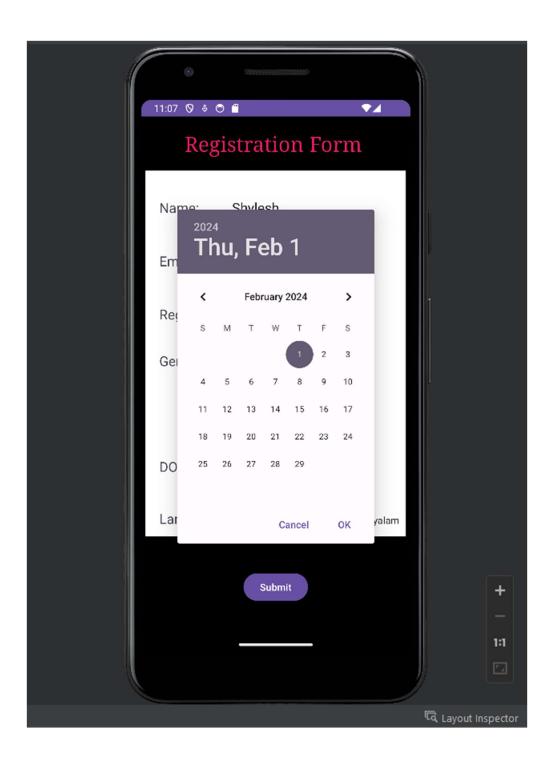
```
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main3);
    Button btn= findViewById(R.id.sbt);
    btn.setOnClickListener(new View.OnClickListener() {
       @Override
      public void onClick(View v) {
Toast.makeText(MainActivity3.this,"Submitted",Toast.LENGTH SHORT).show();
    });
    pickDateBtn = findViewById(R.id.idBtnPickDate);
    selectedDateTV = findViewById(R.id.idTVSelectedDate);
    pickDateBtn.setOnClickListener(new View.OnClickListener() {
       @Override
      public void onClick(View v) {
         final Calendar c = Calendar.getInstance();
         int year = c.get(Calendar.YEAR);
         int month = c.get(Calendar.MONTH);
         int day = c.get(Calendar.DAY OF MONTH);
         DatePickerDialog datePickerDialog = new DatePickerDialog(
              MainActivity3.this,
              new DatePickerDialog.OnDateSetListener() {
                  @Override
                public void onDateSet(DatePicker view, int year,
                             int monthOfYear, int dayOfMonth) {
                  selectedDateTV.setText(dayOfMonth + "-" + (monthOfYear +
1) + "-" + year);
```

```
year, month, day);
datePickerDialog.show();
}
});
```

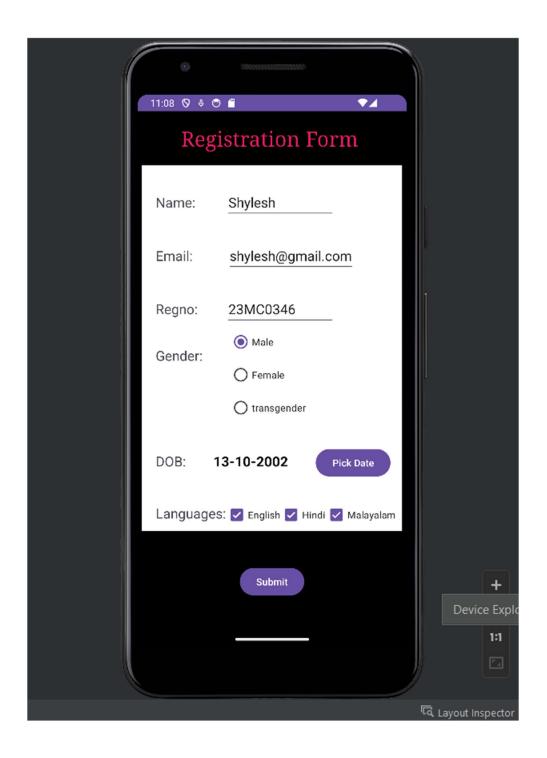
## **Screenshots:**



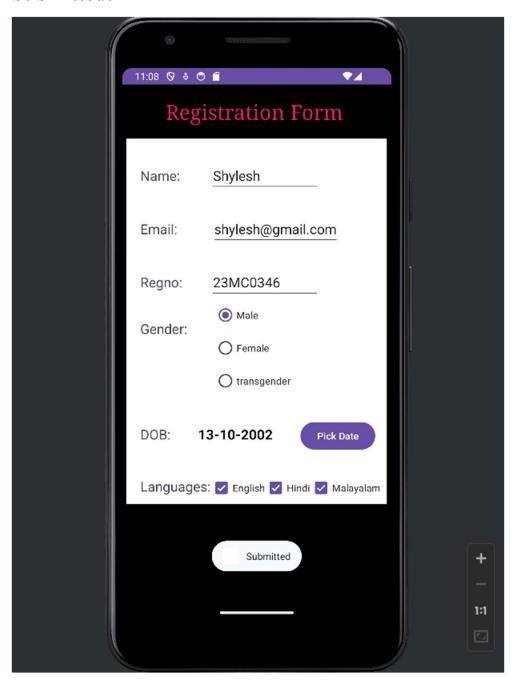
#### **DatePicker:**



# **Entering Details:**



## **Submitted:**



#### 4) Image Changing:

#### activity main:

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout xmlns:android="http://schemas.android.com/apk/res/android"</p>
  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:orientation="vertical"
  tools:context=".MainActivity4">
  <TextView
    android:id="@+id/textView8"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:textSize="30sp"
    android:layout_gravity="center"
    android:textAlignment="center"
    android:layout marginTop="20dp"
    android:fontFamily="serif"
    android:text="Image Change Puzzle" />
  <ImageView
    android:id="@+id/imageView"
    android:src="@drawable/welcome"
    android:layout width="wrap content"
    android:layout height="wrap content"
    tools:layout editor absoluteX="141dp"
    tools:layout editor absoluteY="84dp"
    android:layout gravity="center"
    android:layout marginTop="50dp"
    tools:srcCompat="@tools:sample/avatars" />
  <Button
    android:id="@+id/img1"
```

```
android:layout width="match parent"
    android:layout height="wrap content"
    android:text="Image-1"
    android:layout gravity="center"
    android:layout marginTop="60dp"/>
  <Button
    android:id="@+id/img2"
    android:layout width="match parent"
    android:layout height="wrap content"
    android:layout marginTop="30dp"
    android:layout gravity="center"
    android:text="Image-2"/>
  <Button
    android:id="@+id/img3"
    android:layout_width="match parent"
    android:layout height="wrap content"
    android:layout marginTop="30dp"
    android:layout gravity="center"
    android:text="Image-3"/>
</LinearLayout>
MainActivity.java
package com.example.myfirstapplication;
import androidx.appcompat.app.AppCompatActivity;
import android.graphics.BitmapFactory;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
public class MainActivity4 extends AppCompatActivity {
```

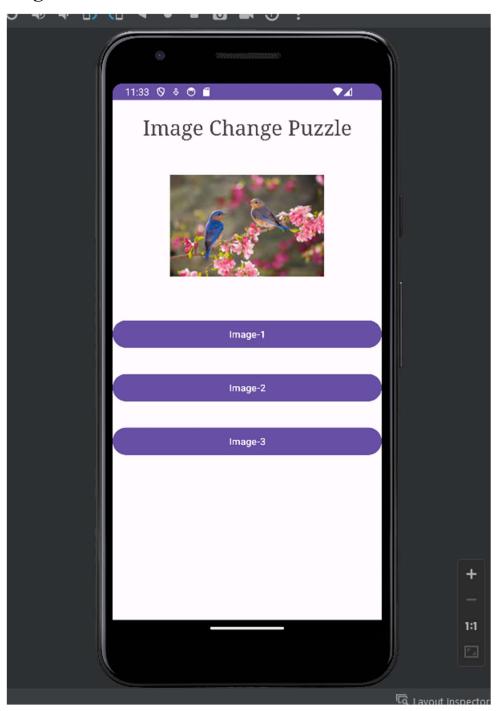
```
@Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main4);
    Button btn1=findViewById(R.id.img1);
    Button btn2=findViewById(R.id.img2);
    Button btn3=findViewById(R.id.img3);
    ImageView img=findViewById(R.id.imageView);
    btn1.setOnClickListener(new View.OnClickListener() {
       @Override
      public void onClick(View v) {
         img.setImageResource(R.drawable.bird);
    });
    btn2.setOnClickListener(new View.OnClickListener() {
      @Override
      public void onClick(View v) {
img.setImageDrawable(getResources().getDrawable(R.drawable.flower));
       }
    });
    btn3.setOnClickListener(new View.OnClickListener() {
       @Override
      public void onClick(View v) {
img.setImageBitmap(BitmapFactory.decodeResource(getResources(),R.drawable.n
ature));
    });
```

## **Screenshots:**

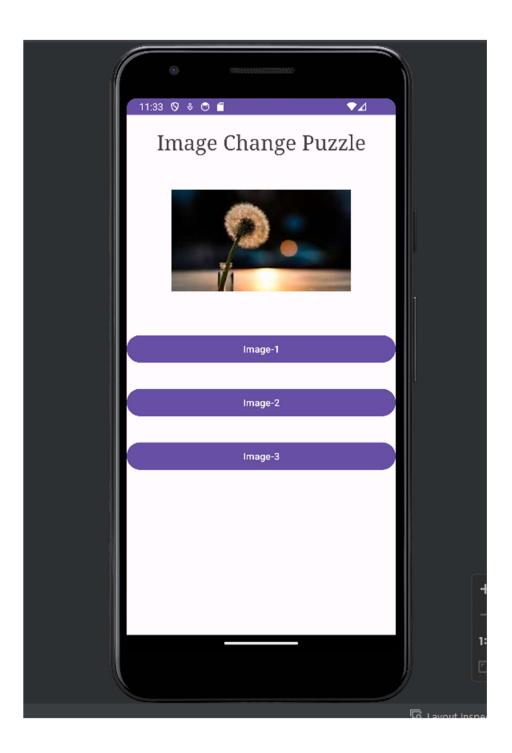
# **Loading phase:**



# Img1:



# Img2:



# Img3:

