



SUPERIOR UNIVERSITY

ASSIGNMENT 02

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QUESTION :03

Implement signup and sign in form without using any database with following properties:

1- First implement splash screen.

JAVA:

```
package com.example.a2ndassq3;

import android.content.Intent; import android.os.Bundle; import android.os.Handler;

import androidx.appcompat.app.AppCompatActivity;

public class SplashScreenActivity extends AppCompatActivity {

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

        new Handler().postDelayed(new Runnable() {
            @Override          public void run() {
                Intent toSignIn= new Intent(SplashScreenActivity.this, Signin.class);
                startActivity(toSignIn);          finish();
            }
        }, 2000);
    }
}
```

XML:

```
<?xml version="1.0" encoding="UTF-8"?>

<androidx.constraintlayout.widget.ConstraintLayout
```

```
android:background="@drawable/splash_screen" tools:context=".SplashScreenActivity"
android:layout_height="match_parent" android:layout_width="match_parent"
xmlns:tools="http://schemas.android.com/tools"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:android="http://schemas.android.com/apk/res/android">
</androidx.constraintlayout.widget.ConstraintLayout>
```

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<selector xmlns:android="http://schemas.android.com/apk/res/android">
```

```
</selector>
```

2- Second screen showing sign-up and sign-in button.

3-User press sign-up button and sign-up form shown.

4- After filling sign-up form user press sign-in button then next screen show that account is created.

5- Also used Toast.

JAVA SIGNIN:

```
package com.example.a2ndassq3;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

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

```
public class Signin extends AppCompatActivity {
```

```
    @Override
```

```

    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_signin);        Button singUp= findViewById(R.id.btn1);

        singUp.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View view) {

                Intent toSignup= new Intent(Signin.this, Signup.class);

                startActivity(toSignup);

            }

        });
    }
}

```

XML SIGNIN:

```

<?xml version="1.0" encoding="UTF-8"?>

```

```

    <androidx.constraintlayout.widget.ConstraintLayout
    android:background="@drawable/colorr" android:layout_height="match_parent"
    android:layout_width="match_parent" xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:android="http://schemas.android.com/apk/res/android">

```

```

        <Button android:layout_height="wrap_content" android:layout_width="wrap_content"
    app:layout_constraintTop_toTopOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintHorizontal_bias="0.498"

    app:layout_constraintEnd_toEndOf="parent" android:textColor="@color/white"
    android:text="Signin" android:backgroundTint="@color/black"
    android:layout_marginTop="260dp" android:id="@+id/button"/>

```

```

        <Button android:layout_height="wrap_content" android:layout_width="wrap_content"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintHorizontal_bias="0.495"

```

```

app:layout_constraintEnd_toEndOf="parent" android:textColor="@color/white"
android:text="Signup" android:backgroundTint="@color/black"
android:layout_marginTop="96dp" android:id="@+id/btn1"
app:layout_constraintVertical_bias="0.0"
app:layout_constraintTop_toBottomOf="@+id/button"
app:layout_constraintBottom_toBottomOf="parent"/>

```

```

</androidx.constraintlayout.widget.ConstraintLayout>

```

JAVA SIGN UP:

```

package com.example.a2ndassq3;

```

```

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 Signup extends AppCompatActivity {

```

```

    @Override

```

```

    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_signup);
        Button signupBtn=
        findViewById(R.id.btn);

```

```

        signupBtn.setOnClickListener(new View.OnClickListener() {

```

```

            @Override

```

```

            public void onClick(View view) {
                Toast.makeText(Signup.this,"Signed
                Up",Toast.LENGTH_SHORT).show();

```

```

            }

```

```

        });

```

```

    }

```

```

}

```

XML SIGNUP:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<androidx.constraintlayout.widget.ConstraintLayout tools:context=".Signup"
android:background="@drawable/colorr" android:layout_height="match_parent"
android:layout_width="match_parent" xmlns:tools="http://schemas.android.com/tools"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:android="http://schemas.android.com/apk/res/android">
```

```
<TextView android:background="@color/black" android:layout_height="wrap_content"
android:layout_width="wrap_content" app:layout_constraintTop_toTopOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintEnd_toEndOf="parent" android:textStyle="bold"
android:textSize="30dp" android:textColor="@color/white" android:text="Sign Up"
android:backgroundTint="@color/black" android:layout_marginTop="60dp"
android:id="@+id/textView"/>
```

```
<EditText android:layout_height="47dp" android:layout_width="288dp"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintEnd_toEndOf="parent" android:textColor="@color/white"
android:backgroundTint="@color/black" android:layout_marginTop="68dp"
android:id="@+id/editText" app:layout_constraintTop_toBottomOf="@+id/textView"

app:layout_constraintHorizontal_bias="0.111" android:textColorHint="@color/white"
android:hint="Enter Your Name"/>
```

```
<EditText android:layout_height="47dp" android:layout_width="288dp"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintEnd_toEndOf="parent" android:textColor="@color/white"
android:backgroundTint="@color/black" android:layout_marginTop="16dp"
android:id="@+id/editText2" app:layout_constraintTop_toBottomOf="@+id/editText"

app:layout_constraintHorizontal_bias="0.113" android:textColorHint="@color/white"
android:hint="Enter Your Email"/>
```

```
<EditText android:layout_height="47dp" android:layout_width="288dp"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintEnd_toEndOf="parent" android:textColor="@color/white"
android:backgroundTint="@color/black" android:layout_marginTop="16dp"
android:id="@+id/editText3" app:layout_constraintTop_toBottomOf="@+id/editText2">
```

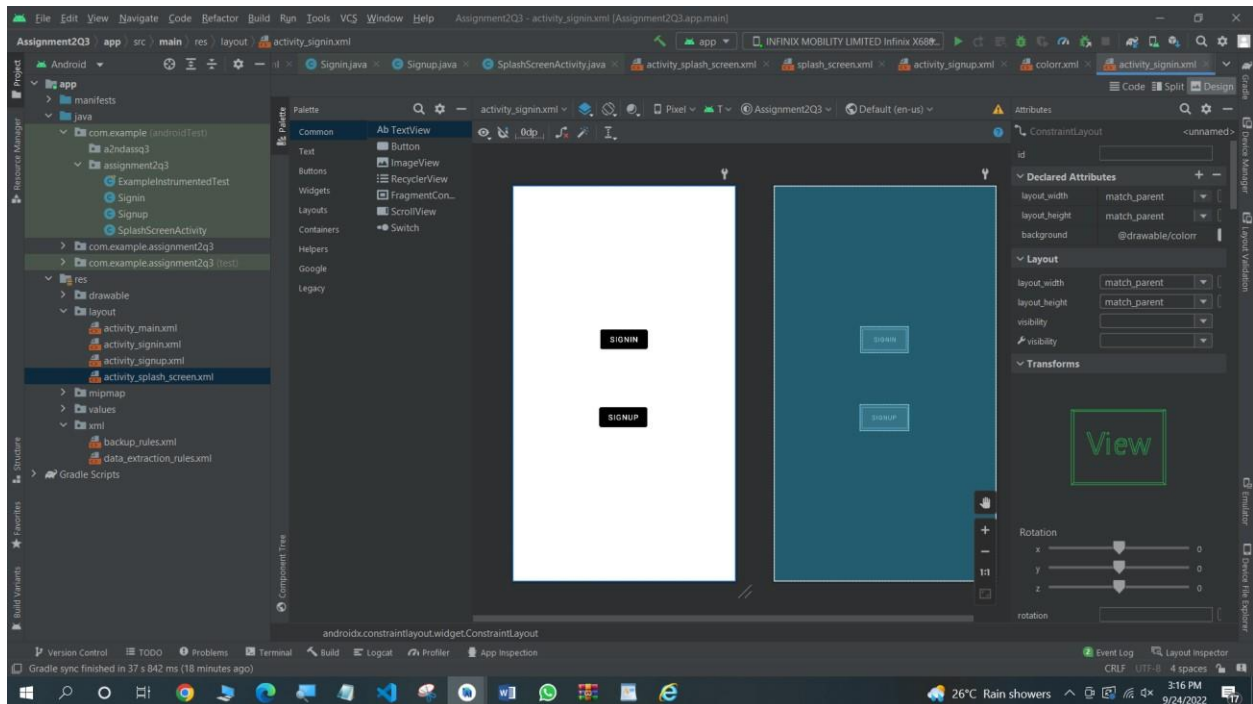
```
app:layout_constraintHorizontal_bias="0.113" android:textColorHint="@color/white"
android:hint="Enter Your Number"/>
```

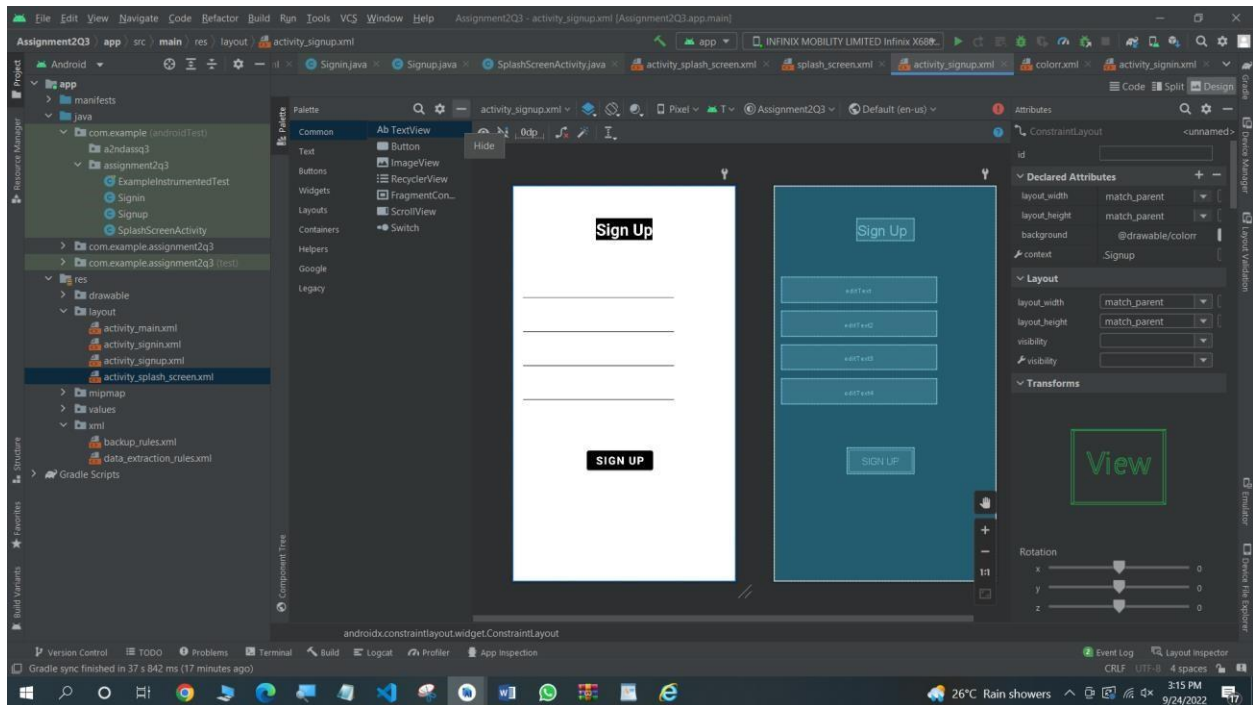
```
<EditText android:layout_height="47dp" android:layout_width="288dp"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintEnd_toEndOf="parent" android:textColor="@color/white"
android:backgroundTint="@color/black" android:layout_marginTop="16dp"
android:id="@+id/editText4" app:layout_constraintTop_toBottomOf="@+id/editText3"
```

```
app:layout_constraintHorizontal_bias="0.113" android:textColorHint="@color/white"
android:hint="Enter Your Name"/>
```

```
<Button android:layout_height="wrap_content" android:layout_width="wrap_content"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintEnd_toEndOf="parent" android:textStyle="bold"
android:textSize="20dp" android:textColor="@color/white" android:text="Sign Up"
android:backgroundTint="@color/black" android:layout_marginTop="80dp"
android:id="@+id/btn" app:layout_constraintTop_toBottomOf="@+id/editText4"
app:layout_constraintHorizontal_bias="0.472"/>
```

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





QUESTION :01

Implement android SMS application with following properties:

- 1- First implement Splash Screen.**
- 2- Use intent to move splash screen to SMS body.**
- 3- Also used Toast.**

JAVA:

```
package com.example.assignment2q1; import
androidx.appcompat.app.AppCompatActivity; import android.content.Intent; import
android.os.Bundle; import android.os.Handler;

public class MainActivity extends AppCompatActivity {

    @Override

    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);        setContentView(R.layout.activity_main);
    }
}
```



```

getSupportActionBar().hide();      Handler handler = new Handler();
handler.postDelayed(new Runnable() {
    @Override      public void run() {
        Intent intent=new Intent(MainActivity.this,MainActivity.class);
startActivity(intent);      finish();
    }
}, 2000);
}}

```

SMS_APP_JAVA:

```

package com.example.assignment2q1;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle; import android.telephony.SmsManager; import
android.view.View; import android.widget.Button; import android.widget.EditText;
import android.widget.Toast;

public class sms_app extends AppCompatActivity {

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

        setContentView(R.layout.activity_sms_app);

        getSupportActionBar().hide();

        Button send=findViewById(R.id.send);

```

```

        send.setOnClickListener(new View.OnClickListener() {                @Override
            public void onClick(View v) {                sms();
            }
        });

    }

    public void sms(){

        EditText number=findViewById(R.id.number);
        EditText message=findViewById(R.id.message);

        String num=number.getText().toString();
        String sms=message.getText().toString();

        SmsManager smsmanager= SmsManager.getDefault();
        smsmanager.sendTextMessage(num,null,sms,null,null);

        Toast.makeText(getApplicationContext(),"Sms Send",Toast.LENGTH_LONG).show();
    }
}

```

XML:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```

<androidx.constraintlayout.widget.ConstraintLayout
    tools:context=".MainActivity"    android:layout_height="match_parent"
    android:layout_width="match_parent"
    xmlns:tools="http://schemas.android.com/tools"
    xmlns:app="http://schemas.android.com/apk/res-auto"
    xmlns:android="http://schemas.android.com/apk/res/android">

```

```

        <ImageView android:layout_height="337dp"          android:layout_width="337dp"
app:layout_constraintVertical_bias="0.46"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintBottom_toBottomOf="parent"
android:background="@drawable/sms"          android:layout_marginBottom="12dp"
android:layout_marginStart="30dp"/>

```

```

</androidx.constraintlayout.widget.ConstraintLayout>

```

SMS_APP_XML:

```

<?xml version="1.0" encoding="UTF-8"?>

```

```

        <androidx.constraintlayout.widget.ConstraintLayout    tools:context=".MainActivity"
android:layout_height="match_parent"    android:layout_width="match_parent"
xmlns:tools="http://schemas.android.com/tools"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:android="http://schemas.android.com/apk/res/android">

```

```

        <EditText

```

```

            android:layout_height="60dp"          android:layout_width="290dp"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintEnd_toEndOf="parent"
android:background="@drawable/border"          android:paddingLeft="15dp"
android:inputType="number"          android:hint="Phone Number"
android:textColorHint="@color/black"          android:autofillHints="phone"
android:layout_marginTop="250dp"          android:id="@+id/number"/>

```

```

        <EditText

```

```

            android:layout_height="60dp"          android:layout_width="290dp"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintEnd_toEndOf="parent"
android:background="@drawable/border"          android:inputType="textMultiLine"
android:hint="Message"          android:textColorHint="@color/black"
android:layout_marginTop="50dp"          android:id="@+id/message"

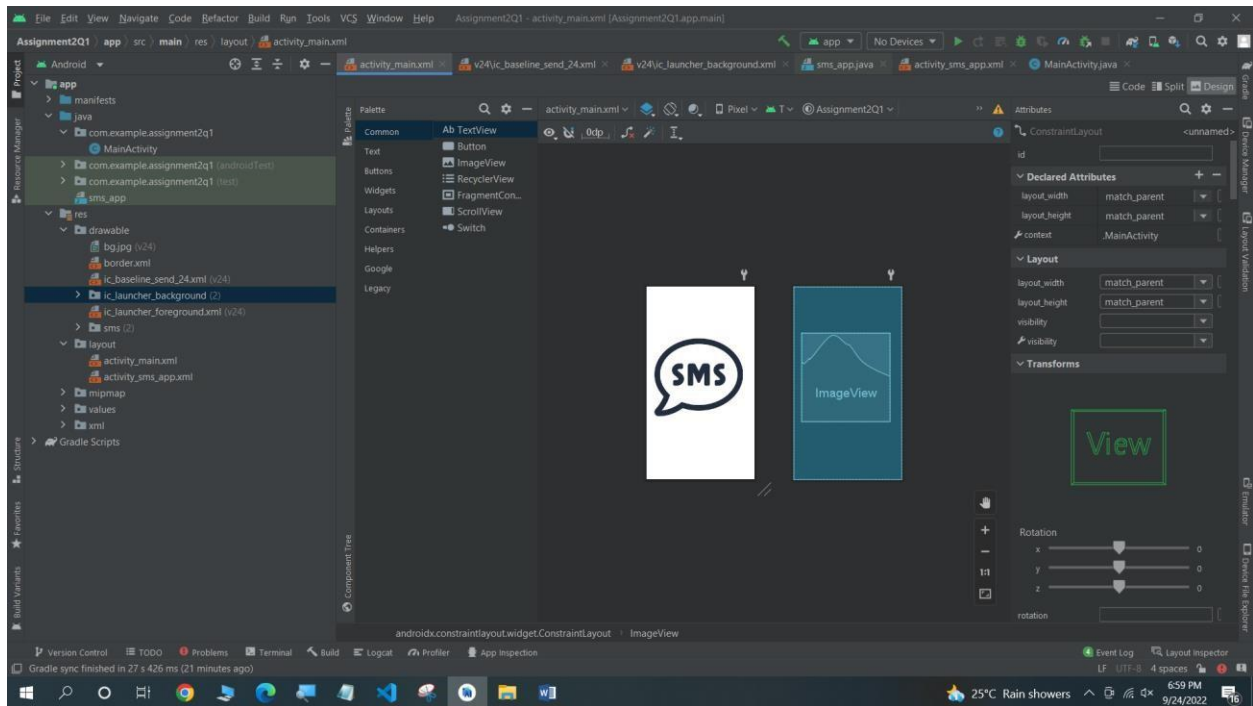
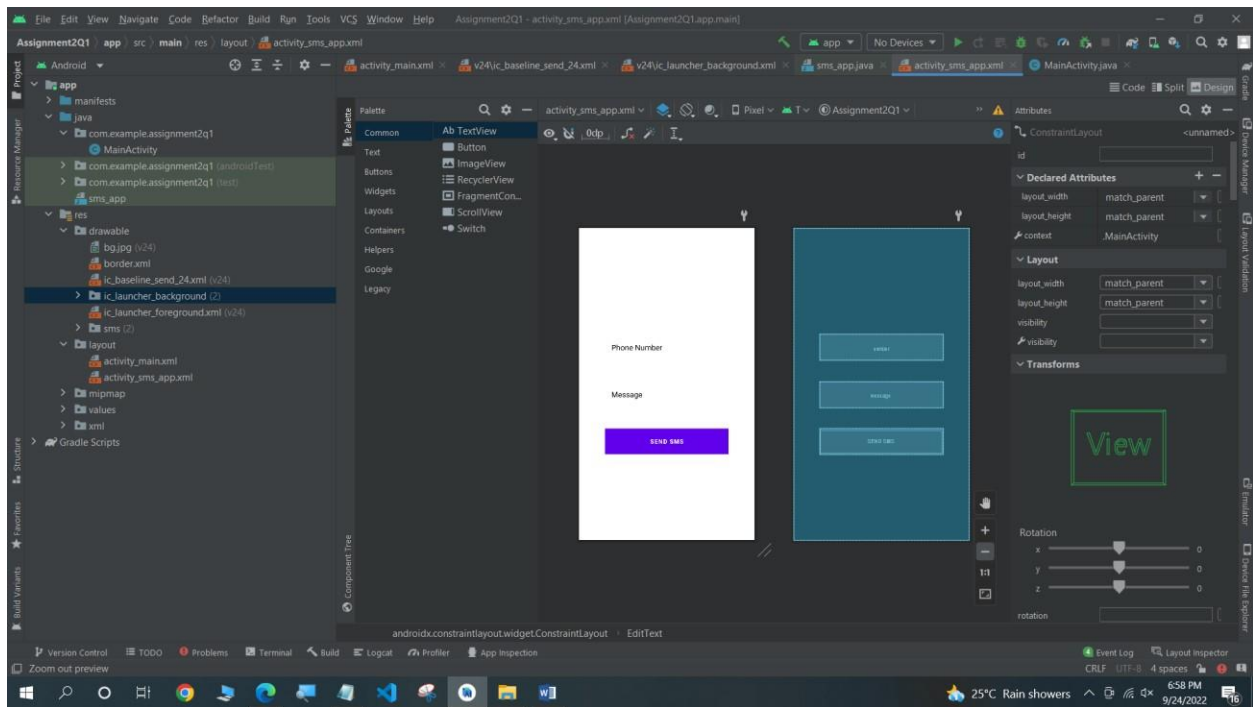
            app:layout_constraintTop_toBottomOf="@+id/number"
android:padding="15dp"/>

```

```
<Button
    android:layout_height="60dp"        android:layout_width="290dp"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintEnd_toEndOf="parent"
    android:background="@drawable/border"    android:layout_marginTop="50dp"
    android:id="@+id/send"

    app:layout_constraintTop_toBottomOf="@+id/message"
    android:textStyle="bold"    android:text="Send Sms"/>

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



QUESTION :02

Implement android application to send email using Gmail or existing client in your mobile phone.

JAVA:

```
package com.example.email;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent; import android.os.Bundle; import android.os.Handler;

public class MainActivity extends AppCompatActivity {

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

        getSupportActionBar().hide();

        Handler handler=new Handler();        handler.postDelayed(new Runnable() {
            @Override            public void run() {
                Intent intentn=new Intent(MainActivity.this,email.class);
startActivity(intentn);                finish();
            }
        },3000);

    }
}
```

XML:

```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<LinearLayout tools:context=".MainActivity" android:orientation="vertical"
android:layout_height="match_parent" android:layout_width="match_parent"
xmlns:tools="http://schemas.android.com/tools"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:android="http://schemas.android.com/apk/res/android">
```

```
<ImageView android:layout_height="250dp" android:layout_width="250dp"
android:layout_marginTop="240dp" android:background="@drawable/em"
android:layout_gravity="center_horizontal"/>
```

```
</LinearLayout>
```

EMAIL.JAVA:

```
package com.example.email; import android.content.Intent; import android.os.Bundle;
import android.view.View; import android.widget.Button; import
android.widget.EditText; import android.widget.Toast;
```

```
import androidx.appcompat.app.AppCompatActivity;
```

```
public class email extends AppCompatActivity {
```

```
    @Override
```

```
    protected void onCreate(Bundle savedInstanceState)
    {        super.onCreate(savedInstanceState);        setContentView(R.layout.activity_email);
        Button btn=findViewById(R.id.send);
```

```
        getSupportActionBar().hide();
```

```
        btn.setOnClickListener(new View.OnClickListener() {
```

```
            @Override            public void onClick(View v) {                email();
```

```

    }
    });

}

public void email(){
    try {
        EditText To=findViewById(R.id.to);
        EditText Sub=findViewById(R.id.sub);
        EditText Mes=findViewById(R.id.message);

        String to=To.getText().toString();
        String sub=Sub.getText().toString();
        String mes=Mes.getText().toString();

        Intent email=new Intent(Intent.ACTION_SEND);
        email.putExtra(Intent.EXTRA_EMAIL,new String(to));
        email.putExtra(Intent.EXTRA_SUBJECT,new String(sub));
        email.putExtra(Intent.EXTRA_TEXT,new String(mes));

        email.setType("message/rfc822");
        startActivity(Intent.createChooser(email,"Send email"));
    }catch (Exception e){
        Toast.makeText(getApplicationContext(),"Error",Toast.LENGTH_LONG).show();
    }
}
}

```

EMAIL.XML:


```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<LinearLayout tools:context=".email" android:orientation="vertical"
android:layout_height="match_parent" android:layout_width="match_parent"
xmlns:tools="http://schemas.android.com/tools"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:android="http://schemas.android.com/apk/res/android">
```

```
    <ImageView android:layout_height="300dp" android:layout_width="300dp"
android:layout_marginTop="20dp" android:layout_gravity="center_horizontal"
android:background="@drawable/em"/>
```

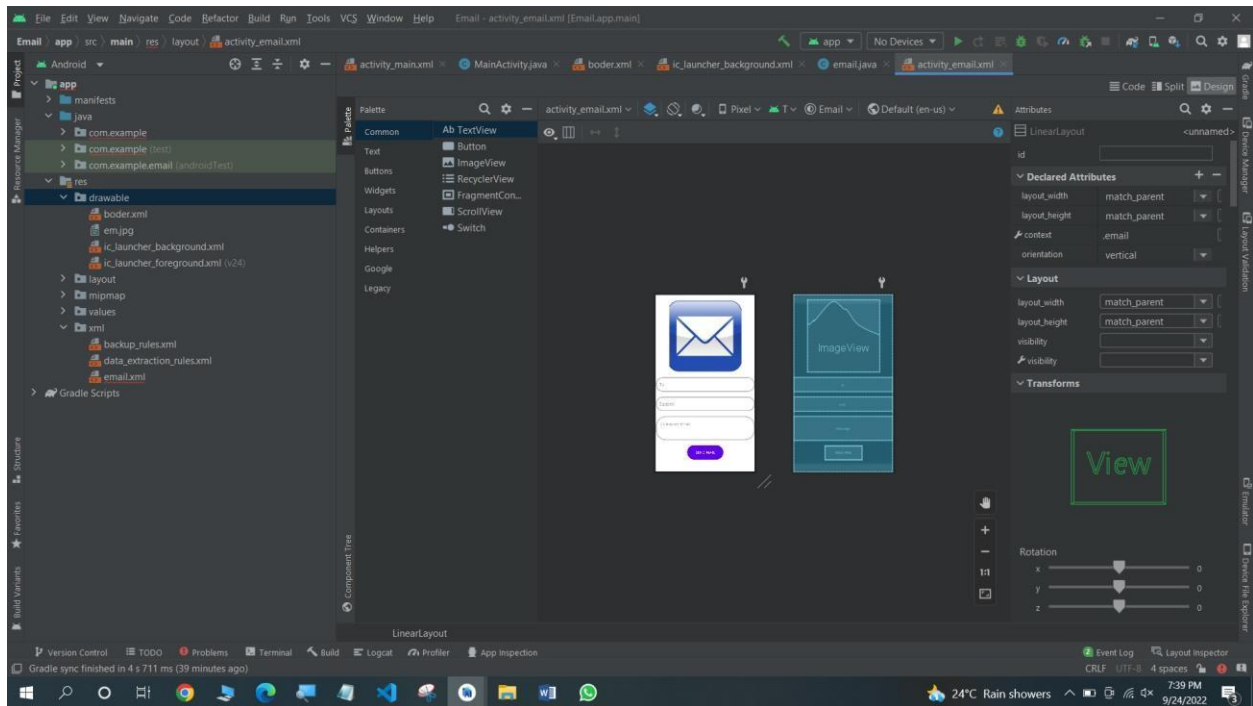
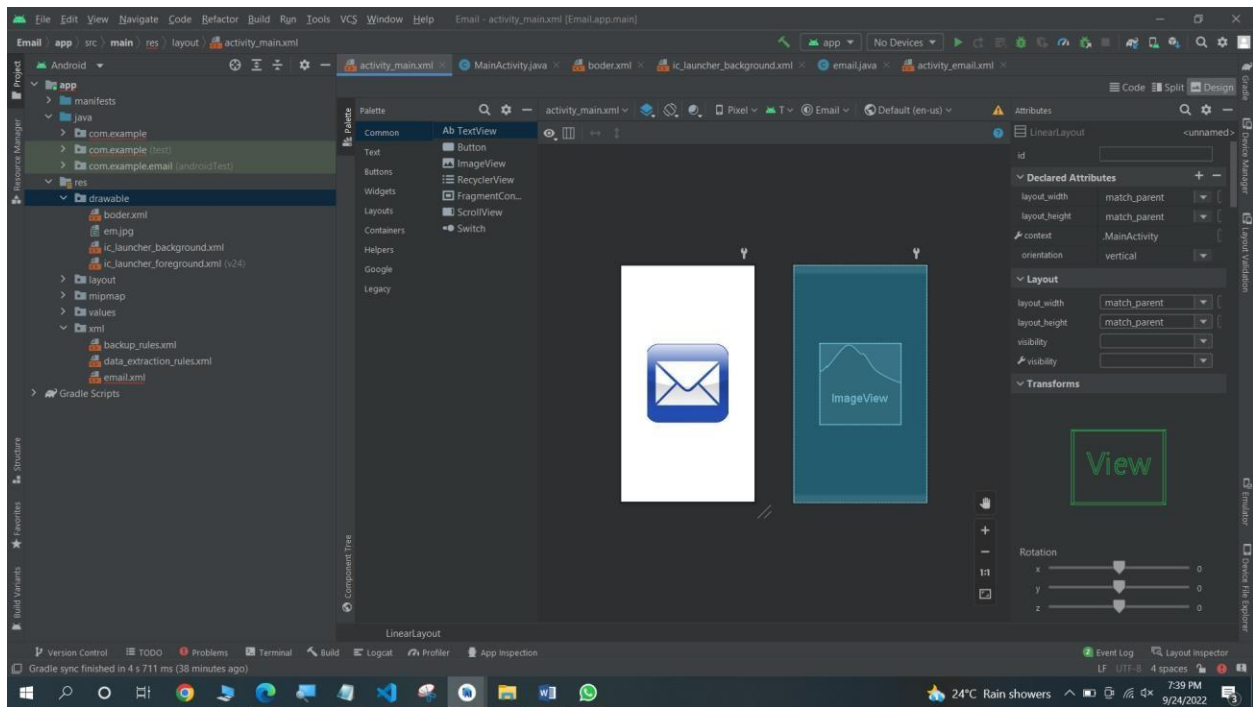
```
    <EditText android:layout_height="60dp" android:layout_width="match_parent"
android:layout_marginTop="20dp" android:layout_gravity="center_horizontal"
android:background="@drawable/boder" android:padding="15dp" android:hint="To"
android:id="@+id/to"/>
```

```
    <EditText android:layout_height="60dp" android:layout_width="match_parent"
android:layout_marginTop="20dp" android:layout_gravity="center_horizontal"
android:background="@drawable/boder" android:padding="15dp" android:hint="Subject"
android:id="@+id/sub"/>
```

```
    <EditText android:layout_height="100dp" android:layout_width="match_parent"
android:layout_marginTop="20dp" android:background="@drawable/boder"
android:padding="20dp" android:hint="Compose email" android:id="@+id/message"
android:gravity="top" android:inputType="textMultiLine"/>
```

```
    <Button android:layout_height="60dp" android:layout_width="150dp"
android:layout_marginTop="20dp" android:layout_gravity="center_horizontal"
android:background="@drawable/boder" android:id="@+id/send" android:text="Send
mail"/>
```

```
</LinearLayout>
```



QUESTION :04

Implement the following android application.

Area Converter

JAVA:

```
package com.example.area;

import androidx.appcompat.app.AppCompatActivity; import android.app.ActionBar;
import android.os.Bundle; import android.view.View; import
android.widget.AdapterView; import android.widget.ArrayAdapter; import
android.widget.EditText; import android.widget.Spinner; import
android.widget.TextView; import android.widget.Toast; import java.util.ArrayList; import
java.util.List;

public class MainActivity extends AppCompatActivity {

    TextView textView,width_field,Height_Field,Radius_Field,textView_Result;

    EditText editTextNumberDecimal,editTextNumberDecimal2,editTextNumberDecimal3;

    Spinner spinner;

    Double widthy=0.0;

    Double heighty=0.0;

    Double radiusy=0.0; Double result=0.0;    private Object Spinner;

    @Override

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

        width_field=(TextView) findViewById(R.id.width_field);

        Height_Field=(TextView) findViewById(R.id.Height_Field);

        Radius_Field=(TextView) findViewById(R.id.Radius_Field);        Spinner=(Spinner)
findViewById(R.id.spinner);

        textView_Result=(TextView) findViewById(R.id.textView_Result);        List<String>
shapes=new ArrayList<String>();        shapes.add("select the shape ");
shapes.add("circle");        shapes.add("rectangle");        shapes.add("square");
shapes.add("sphere");        shapes.add("cube");

        ArrayAdapter<String> dataAdapter= new ArrayAdapter<String>(this,
android.R.layout.simple_spinner_item,shapes);

        dataAdapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_ite
m); spinner.setAdapter(dataAdapter);

        spinner.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {

            @Override
```

```

    public void onItemSelected(AdapterView<?> parent, View view, int position, long id)
    {
        int i = 0;

        String selectedItem = dataAdapter.getItem(i).toString();    heighty=
        Double.parseDouble(Height_Field.getText().toString());    widthy=
        Double.parseDouble(width_field.getText().toString());    radiusy=
        Double.parseDouble(Radius_Field.getText().toString());
        if(selectedItem.equals("Select the shape!"))

        {

            Toast.makeText(MainActivity.this,"select any
            shape",Toast.LENGTH_SHORT).show();    }

            else if(selectedItem.equals("circle")){ result =3.14*radiusy*radiusy;

                textView_Result.setText("The Area :+result");

            }

            else if(selectedItem.equals("square")){    result=heighty*widthy;

                textView_Result.setText("The Area :+result");

            }

            else if(selectedItem.equals("rectangle")){    result=heighty*widthy;

                textView_Result.setText("The Area :+result");

            }

            else if(selectedItem.equals("sphere"))    result=(4/3) *3.14
            *radiusy*radiusy*radiusy;

                textView_Result.setText("The Area :+result");

            }    else

                selectedItem.equals("cube");

            {

                result=widthy*heighty*widthy;    textView_Result.setText("The
                Area :+result");

            }

        }

    }

    @Override

    public void onNothingSelected(AdapterView<?> parent) {

    }}

```

XML:

```
package com.example.area;

import androidx.appcompat.app.AppCompatActivity; import android.app.ActionBar;
import android.os.Bundle; import android.view.View; import
android.widget.AdapterView; import android.widget.AdapterView; import
android.widget.EditText; import android.widget.Spinner; import
android.widget.TextView; import android.widget.Toast; import java.util.ArrayList; import
java.util.List;

public class MainActivity extends AppCompatActivity {

    TextView textView,width_field,Height_Field,Radius_Field,textView_Result;

    EditText editTextNumberDecimal,editTextNumberDecimal2,editTextNumberDecimal3;

    Spinner spinner;

    Double widthy=0.0;

    Double heighty=0.0;

    Double radiusy=0.0; Double result=0.0;    private Object Spinner;

    @Override

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

        width_field=(TextView) findViewById(R.id.width_field);
        Height_Field=(TextView) findViewById(R.id.Height_Field);

        Radius_Field=(TextView) findViewById(R.id.Radius_Field);        Spinner=(Spinner)
        findViewById(R.id.spinner);

        textView_Result=(TextView) findViewById(R.id.textView_Result);        List<String>
        shapes=new ArrayList<String>();        shapes.add("select the shape ");
        shapes.add("circle");        shapes.add("rectangle");        shapes.add("square");
        shapes.add("sphere");        shapes.add("cube");

        ArrayAdapter<String> dataAdapter= new ArrayAdapter<String>(this,
        android.R.layout.simple_spinner_item,shapes);

        dataAdapter.setDropDownViewResource(android.R.layout.simple_spinner_dropdown_ite
        m); spinner.setAdapter(dataAdapter);

        spinner.setOnItemSelectedListener(new AdapterView.OnItemSelectedListener() {

            @Override

            public void onItemSelected(AdapterView<?> parent, View view, int position, long id)
            {                int i = 0;

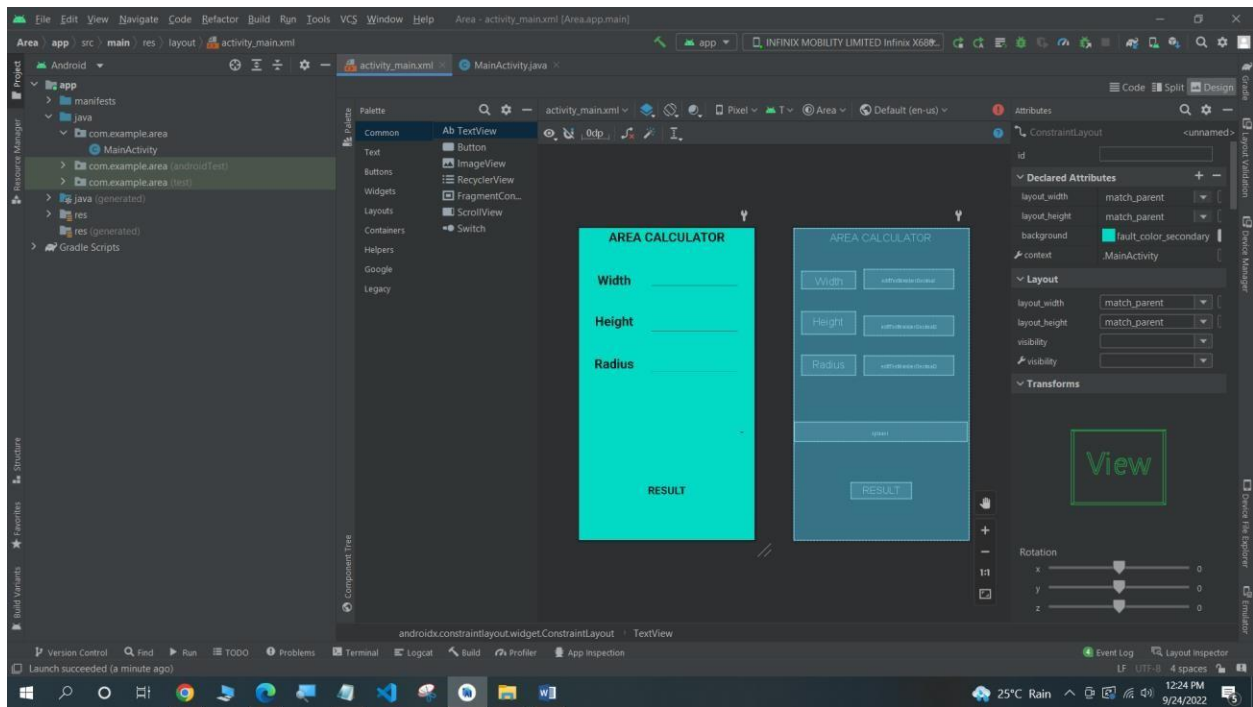
                String selectedItem = dataAdapter.getItem(i).toString();        heighty=
                Double.parseDouble(Height_Field.getText().toString());        widthy=
```

```

Double.parseDouble(width_field.getText().toString());    roudousy=
Double.parseDouble(Radius_Field.getText().toString());
if(selectedItem.equals("Select the shape!"))
{
    Toast.makeText(MainActivity.this,"select any
shape",Toast.LENGTH_SHORT).show();}    else if(selectedItem.equals("circle")){ result
=3.14*roudousy*roudousy;    textView_Result.setText("The Area :+result");
}
else if(selectedItem.equals("square")){    result=heighty*widthy;
    textView_Result.setText("The Area :+result");
}
else if(selectedItem.equals("rectangle")){    result=heighty*widthy;
    textView_Result.setText("The Area :+result");
}
else if(selectedItem.equals("sphere")){    result=(4/3) *3.14
*roudousy*roudousy*roudousy;    textView_Result.setText("The Area :+result");
}    else
    selectedItem.equals("cube");
{
    result=widthy*heighty*widthy;    textView_Result.setText("The
Area :+result");
}
}
@Override
public void onNothingSelected(AdapterView<?> parent) {

}
});
}
}

```



BMI CALCULATOR:

JAVA:

```
package com.example.bmicalculator;
```

```
import android.support.v7.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 {
```

```
@Override
```

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

```
    EditText edweg = (EditText) findViewById(R.id.edweg);
    EditText edheg = (EditText) findViewById(R.id.edheg);
    TextView txtweight = (TextView) findViewById(R.id.txtweight);
    TextView txtheight = (TextView) findViewById(R.id.txtheight);
    TextView textInter = (TextView) findViewById(R.id.textInter);
    TextView textres = (TextView) findViewById(R.id.textres);
    TextView Calculator = (TextView) findViewById(R.id.Calculator);
    Button btnres = (Button) findViewById(R.id.btnres);
    Button btnreset = (Button) findViewById(R.id.btnreset);
```

```
    btnres.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View v) {
            String strweg= edweg.getText().toString();
            String strheg=edheg.getText().toString();

            if(strweg.equals("")){
                edweg.setError("Please enter your weight");
                edweg.requestFocus();
                return;
            }
        }
    });
```



```

        if(strheg.equals("")){
            edheg.setError("Please enter your height");
edheg.requestFocus();            return;
        }

        float weight = Float.parseFloat(strweg);

        float height = Float.parseFloat(strheg)/100;

        float bmiValue=BMICalculate(weight,height);

        textInter.setText(interpretBMI(bmiValue));        textres.setText("BMI =
"+bmiValue);
    }
    });

btnres.setOnClickListener(new View.OnClickListener() {
    @Override    public void onClick(View v) {

        edheg.setText("");    edweg.setText("");    textInter.setText("");
        textres.setText("");

    }
});

}

```

```
    public float BMICalculate(float weight, float height) {        return weight / (height *  
height);  
    }
```

```
    public String interpretBMI(float bmiValue) {        if (bmiValue > 16) {        return  
"Servely Under_weight";  
    }
```

```
        if (bmiValue < 18.5) {        return " Under_weight";  
    }
```

```
        if (bmiValue < 25) {        return "Normal";  
    }
```

```
        else if(bmiValue <30){        return "Overweight";  
    }  
        else{        return    "Obese";  
    }
```

```
    }  
}
```

XML:

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<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:layout_width="match_parent"    android:layout_height="match_parent"
    tools:context=".MainActivity"    android:gravity="center"
    android:orientation="vertical"
```

```
    android:background="@android:color/system_accent1_300"
    tools:ignore="NewApi">
```

```
<LinearLayout
```

```
    android:layout_width="wrap_content"
```

```
    android:layout_height="wrap_content"></LinearLayout>
```

```
<TextView
```

```
    android:id="@+id/Calulator"    android:layout_width="wrap_content"
    android:layout_height="wrap_content"    android:text="BMI CALCULATOR"
    android:layout_marginBottom="20dp"    android:textAlignment="center"
    android:gravity="center_horizontal"    android:textSize="30dp"
    android:textStyle="bold"    android:textColor="@color/black"
```

```
    android:textAppearance="@style/TextAppearance.AppCompat.Body1"/>
```

```
<LinearLayout
```

```
    android:layout_width="match_parent"    android:layout_height="wrap_content"
    android:gravity="center"    android:layout_marginBottom="20dp"
```

```
>
```

```
<TextView
```

```
    android:id="@+id/txtweight"    android:layout_width="wrap_content"
    android:layout_height="match_parent"    android:text="weight"
```

```
    android:textAppearance="@style/TextAppearance.AppCompat.Body1"
    android:textStyle="normal"    android:textSize="30sp"
    android:textColor="@color/black"
```

```
/>
```

```
<EditText
```

```
    android:id="@+id/edweg"    android:layout_width="95dp"
    android:layout_height="55dp"    android:textColor="@color/black"
```

```
        android:textSize="25sp"    android:inputType="numberDecimal"    android:hint="KG"
        android:gravity="center"    android:layout_marginLeft="80dp"/>    </LinearLayout>
```

```
    <LinearLayout
```

```
        android:layout_width="match_parent"    android:layout_height="wrap_content"
        android:gravity="center"    android:layout_marginBottom="20dp"
```

```
    >
```

```
        <TextView
```

```
            android:id="@+id/txttheight"    android:layout_width="wrap_content"
            android:layout_height="match_parent"    android:text="height"
```

```
            android:textAppearance="@style/TextAppearance.AppCompat.Body1"
            android:textStyle="normal"    android:textSize="30sp"
            android:textColor="@color/black"
```

```
        />
```

```
        <EditText
```

```
            android:id="@+id/edheg"    android:layout_width="95dp"
            android:layout_height="55dp"    android:textColor="@color/black"
            android:textSize="25sp"    android:inputType="numberDecimal"
            android:hint="cm"    android:gravity="center"
            android:layout_marginLeft="80dp"
```

```
        />
```

```
    </LinearLayout>
```

```
    <Button
```

```
        android:id="@+id/btnres"    android:layout_width="120dp"
        android:layout_height="60dp"    android:text="Result"    android:textSize="25sp"
        android:textColor="@color/black"    android:textStyle="normal"
```

```
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textAlignment="center"    android:gravity="center_horizontal"
        android:layout_marginTop="30dp"    android:background="@drawable/buttonimage"
```

```
    />
```

<TextView

```
        android:id="@+id/textInter"        android:layout_width="wrap_content"
android:layout_height="wrap_content"        android:text="Enter Your detail"
android:textAlignment="center"        android:gravity="center_horizontal"

        android:textAppearance="@style/TextAppearance.AppCompat"
android:textStyle="normal"        android:textSize="29sp"
android:textColor="@color/black"        android:layout_marginTop="40dp"

/>
```

```
<TextView        android:id="@+id/textres"        android:layout_width="wrap_content"
android:layout_height="wrap_content"        android:text="BMI = ?"
android:textAlignment="center"        android:gravity="center_horizontal"

        android:textAppearance="@style/TextAppearance.AppCompat"
android:textStyle="normal"        android:textSize="29sp"
android:textColor="@color/black"        android:layout_marginTop="40dp"

/>
```

<Button

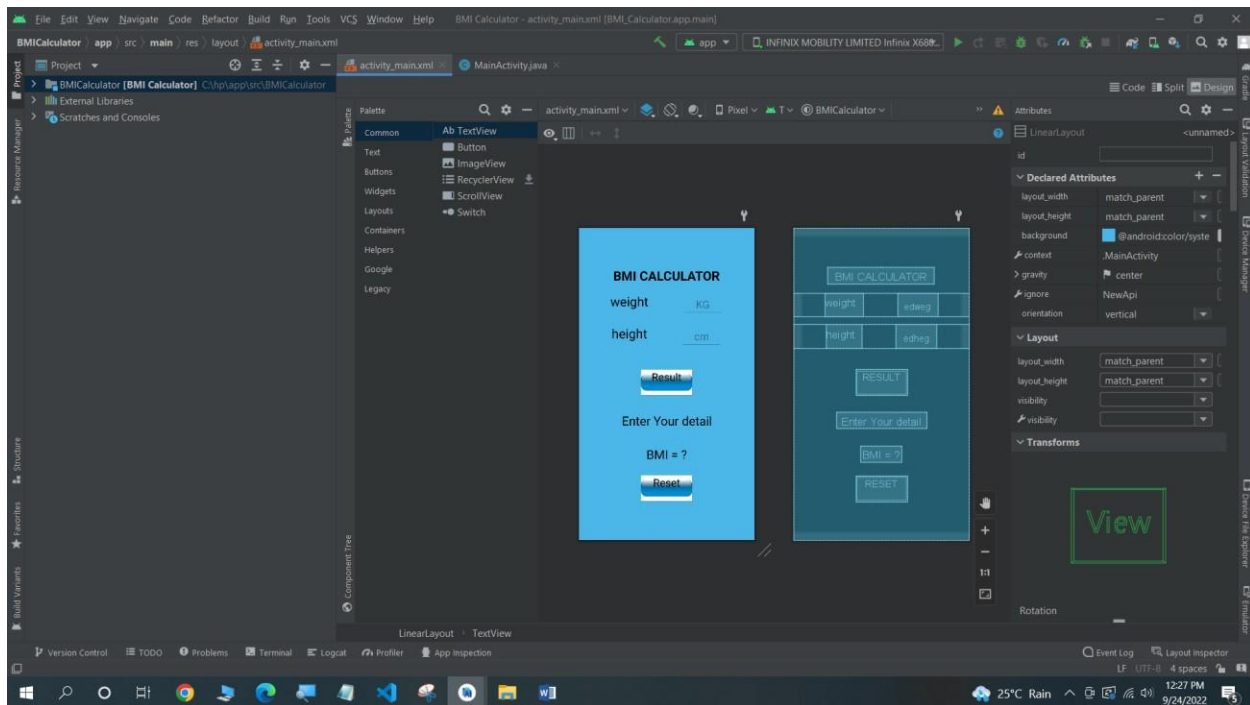
```
        android:id="@+id/btnreset"

        android:layout_width="120dp"        android:layout_height="60dp"
android:text="Reset"        android:textSize="25sp"
android:textColor="@color/black"        android:textStyle="normal"

        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
android:textAlignment="center"        android:gravity="center_horizontal"
android:layout_marginTop="30dp"        android:background="@drawable/buttonimage"

/>
```

</LinearLayout>



LENGTH CONVERTOR:

<?xml version="1.0" encoding="utf-8" ?>

<androidx.constraintlayout.widget.ConstraintLayout
 xmlns:android="http://schemas.android.com/apk/res/android"
 xmlns:app="http://schemas.android.com/apk/res-auto"
 xmlns:tools="http://schemas.android.com/tools"
 android:layout_width="match_parent"
 android:layout_height="match_parent"
 tools:context=".MainActivity">

<EditText

android:id="@+id/ed1" android:layout_width="match_parent"
 android:layout_height="wrap_content" android:ems="10"
 android:hint="centimeter" tools:layout_editor_absoluteX="0dp"
 tools:layout_editor_absoluteY="108dp"
 tools:ignore="MissingConstraints" android:autofillHints="" />

<EditText

android:id="@+id/ed2" android:layout_width="match_parent"
 android:layout_height="wrap_content" android:ems="10"
 android:hint="meters" tools:layout_editor_absoluteX="0dp"
 tools:layout_editor_absoluteY="167dp"
 tools:ignore="MissingConstraints" />

```
<EditText android:id="@+id/ed3"
    android:layout_width="match_parent"
    android:layout_height="wrap_content" android:ems="10"
    android:hint="inches" tools:layout_editor_absoluteX="0dp"
    tools:layout_editor_absoluteY="225dp"
    tools:ignore="MissingConstraints" />

<EditText
```

ASSIGNMENT 1

AMAL ARSHAD

MOBILE APPLICATION DEVELOPMENT

```
android:id="@+id/ed4" android:layout_width="match_parent"
    android:layout_height="wrap_content" android:ems="10"
    android:hint="foot" tools:layout_editor_absoluteX="0dp"
    tools:layout_editor_absoluteY="287dp"
    tools:ignore="MissingConstraints" />
```

```
<Button android:id="@+id/b1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content" android:text="converter"
    tools:layout_editor_absoluteX="158dp"
    tools:layout_editor_absoluteY="359dp"
    tools:ignore="MissingConstraints" />
```

```
<TextView
```

```
    android:id="@+id/textView5" android:layout_width="350dp"
    android:layout_height="33dp"
    android:gravity="center_horizontal" android:text="LENGHT
    CONVERTOR" android:textAlignment="center"
```

```
    android:textAppearance="@style/ShapeAppearance.MaterialComponents.LargeCom
    ponent"
```

```
    android:textColor="@color/black" android:textSize="30dp"
    android:textStyle="bold" tools:ignore="MissingConstraints"
    tools:layout_editor_absoluteX="33dp"
    tools:layout_editor_absoluteY="32dp" />
```

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

XML:

```
package com.example.myapplication; import android.app.Activity; import
android.os.Bundle;
```

```
import android.view.View; import android.widget.Button; import
android.widget.EditText; import android.widget.TextView; import
androidx.appcompat.app.AppCompatActivity;
```

```
public class MainActivity extends AppCompatActivity {
```

```
    EditText ed1, ed2, ed3, ed4;
```

```
    TextView textView5;
```

```
    Button b1; @Override
```

```
    protected void onCreate(Bundle savedInstanceState)
```

```
    { super.onCreate(savedInstanceState); setContentView(R.layout.activity_main); ed1 =
    findViewById(R.id.ed1); ed2 = findViewById(R.id.ed2); ed3 = findViewById(R.id.ed3); ed4
    = findViewById(R.id.ed4); textView5 = findViewById(R.id.textView5); b1 =
    findViewById(R.id.b1);
```

```
    b1.setOnClickListener(new View.OnClickListener() {
```

```
        @Override public void onClick(View view) {
```

```
            Double cm = Double.parseDouble(ed1.getText().toString());
```

```
            Double meter = cm / 100;
```

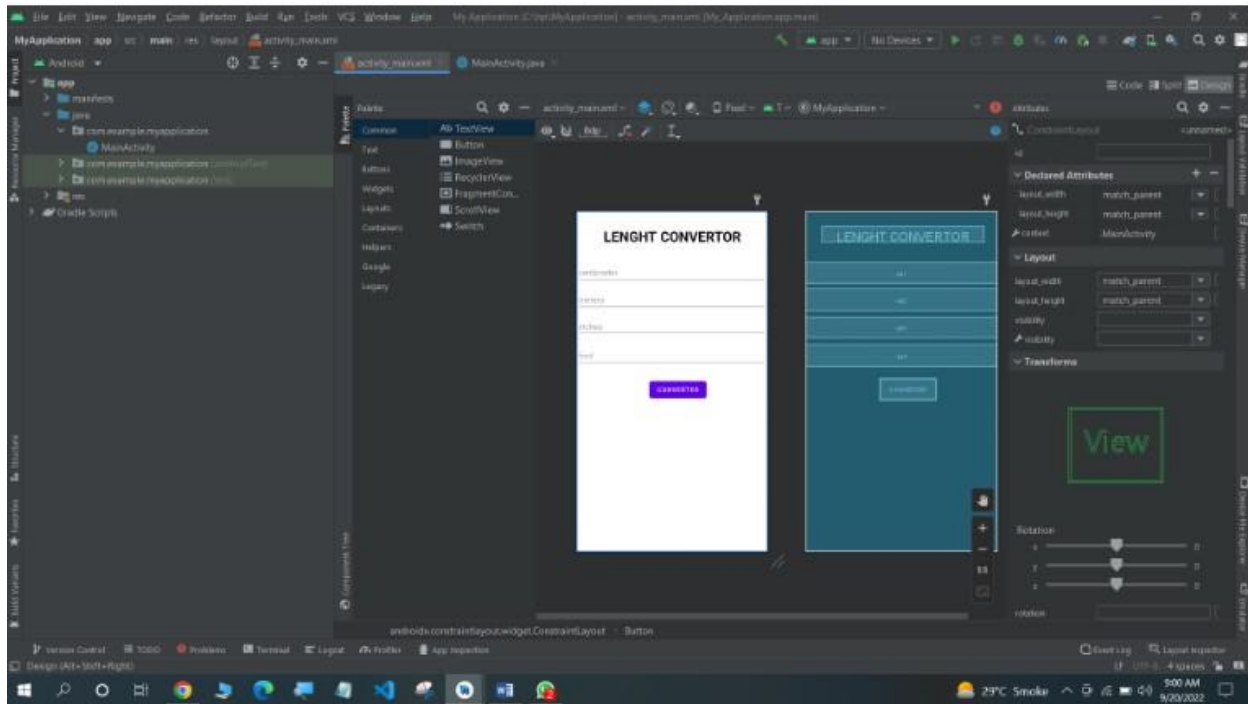
```
            Double inches = cm / 2.54; Double foot = inches / 12; ed2.setText("" + meter);
            ed3.setText("" + inches); ed4.setText("" + foot);
```

```
        }
```

```
    });
```

```
}
```

```
}
```

CURRENCY CONVERTOR:

JAVA:

```
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; import
androidx.appcompat.app.AppCompatActivity; import org.w3c.dom.Text;
```

```
public class MainActivity extends AppCompatActivity {
```

```
@Override
```

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

```
//Button button;
```

```
//EditText editText;
```

```
//TextView textView;
```

```
Convertor(); }
```

```

private void Convertor() {
    Button button1 =findViewById(R.id.btn1);
    Button button2 =findViewById(R.id.btn2);
    Button button3 =findViewById(R.id.btn3);
    Button button4 =findViewById(R.id.btn4);

    button1.setOnClickListener(new View.OnClickListener() {
        @Override public void onClick(View view) {
            EditText editText =findViewById(R.id.pk); TextView textView =findViewById(R.id.tv); float
            PKR= Float.parseFloat(editText.getText().toString()); float result= PKR/219;
            textView.setText(String.valueOf(result)+"$&quot;");
        }
    });

    button2.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            EditText editText= findViewById(R.id.pk); TextView textView =findViewById(R.id.tv2);
            float PKR= Float.parseFloat(editText.getText().toString()); double result= PKR/0.0013;
            textView.setText(String.valueOf(result)+"KWD&quot;");
        }
    });

    button3.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            EditText editText= findViewById(R.id.pk); TextView textView =findViewById(R.id.tv3);
            float PKR= Float.parseFloat(editText.getText().toString()); double result= PKR/33.38;
            textView.setText(String.valueOf(result)+"YUAN&quot;");
        }
    });
}

```

```

button4.setOnClickListener(new View.OnClickListener() { @Override
public void onClick(View view) {
EditText editText= findViewById(R.id.pk); TextView textView =findViewById(R.id.tv4);
float PKR= Float.parseFloat(editText.getText().toString()); double result= PKR/234.60;
textView.setText(String.valueOf(result)+"YUAN");
}
}
});
}
}

```

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"

> <TextView

android:id="@+id/tv4" 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="0.781"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.435" />

<EditText android:id="@+id/pk"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_marginStart="8dp"
android:layout_marginTop="8dp"
android:layout_marginEnd="8dp"

```

```
android:layout_marginBottom="@{8dp}"; android:hint="@{Enter PKR  
Amount}"; android:inputType="@{numberDecimal}";  
app:layout_constraintEnd_toEndOf="@{parent}";  
app:layout_constraintHorizontal_bias="@{0.0}";  
app:layout_constraintStart_toStartOf="@{parent}";  
app:layout_constraintTop_toTopOf="@{parent}";  
app:layout_constraintVertical_bias="@{0.075}"; />
```

<Button

```
android:id="@{+id/btn3}"; android:layout_width="@{wrap_content}";  
android:layout_height="@{wrap_content}"; android:text="@{PKR TO  
YUAN}"; app:layout_constraintBottom_toBottomOf="@{parent}";  
app:layout_constraintEnd_toEndOf="@{parent}";  
app:layout_constraintHorizontal_bias="@{0.061}";  
app:layout_constraintStart_toStartOf="@{parent}";  
app:layout_constraintTop_toTopOf="@{parent}";  
app:layout_constraintVertical_bias="@{0.341}"; />
```

<Button

```
android:id="@{+id/btn4}"; android:layout_width="@{wrap_content}";  
android:layout_height="@{wrap_content}"; android:text="@{PKR TO  
EURO}"; app:layout_constraintBottom_toBottomOf="@{parent}";  
app:layout_constraintEnd_toEndOf="@{parent}";  
app:layout_constraintHorizontal_bias="@{0.061}";  
app:layout_constraintStart_toStartOf="@{parent}";  
app:layout_constraintTop_toTopOf="@{parent}";  
app:layout_constraintVertical_bias="@{0.428}"; />
```

<Button

```
android:id="@{+id/btn1}"; android:layout_width="@{wrap_content}";  
android:layout_height="@{wrap_content}"; android:text="@{PKR TO  
DOLLAR}"; app:layout_constraintBottom_toBottomOf="@{parent}";  
app:layout_constraintEnd_toEndOf="@{parent}";  
app:layout_constraintHorizontal_bias="@{0.061}";  
app:layout_constraintStart_toStartOf="@{parent}";  
app:layout_constraintTop_toTopOf="@{parent}";  
app:layout_constraintVertical_bias="@{0.171}"; /> <TextView  
android:id="@{+id/tv}"; 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="@{0.797}";  
app:layout_constraintStart_toStartOf="@{parent}";  
app:layout_constraintTop_toTopOf="@{parent}";  
app:layout_constraintVertical_bias="@{0.185}"; />
```

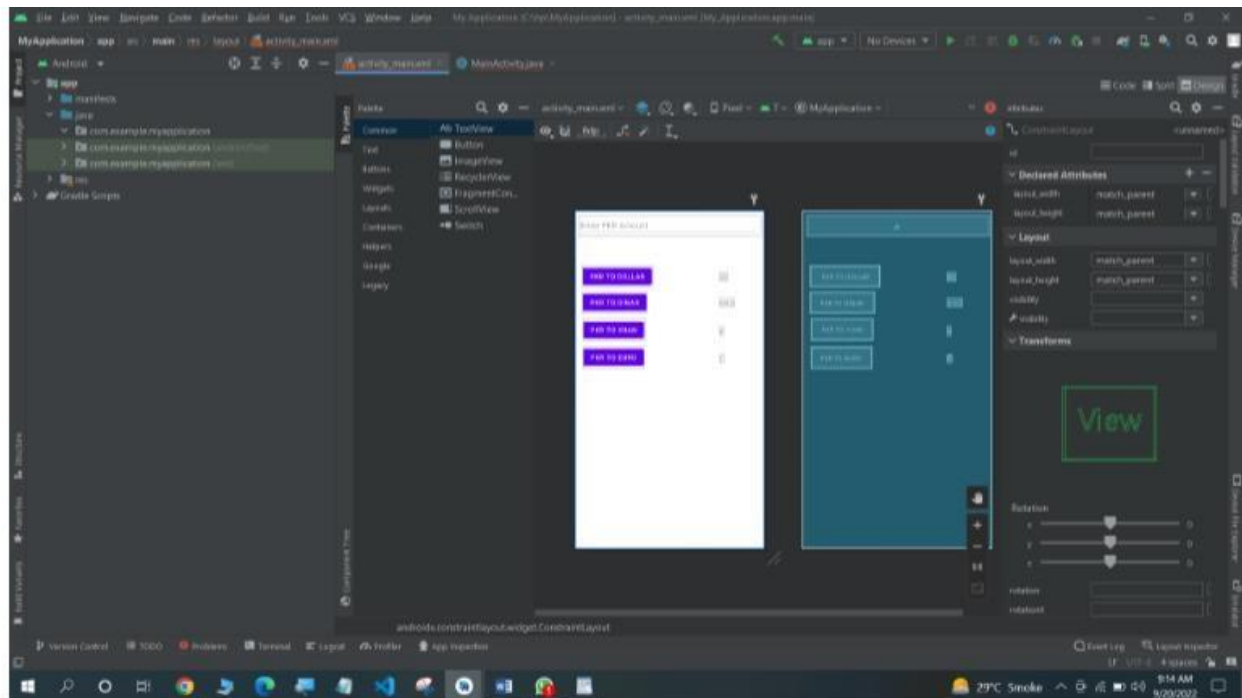
<Button

```
android:id="@+id/btn2"; android:layout_width="wrap_content";
android:layout_height="wrap_content"; android:text="PKR TO
DINAR"; app:layout_constraintBottom_toBottomOf="parent";
app:layout_constraintEnd_toEndOf="parent";
app:layout_constraintHorizontal_bias="0.059";
app:layout_constraintStart_toStartOf="parent";
app:layout_constraintTop_toTopOf="parent";
app:layout_constraintVertical_bias="0.254"; />
```

```
<TextView android:id="@+id/tv2";
android:layout_width="wrap_content";
android:layout_height="wrap_content"; android:text="KWD";
app:layout_constraintBottom_toBottomOf="parent";
app:layout_constraintEnd_toEndOf="parent";
app:layout_constraintHorizontal_bias="0.826";
app:layout_constraintStart_toStartOf="parent";
app:layout_constraintTop_toTopOf="parent";
app:layout_constraintVertical_bias="0.265"; />
```

```
<TextView android:id="@+id/tv3";
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="0.779";
app:layout_constraintStart_toStartOf="parent";
app:layout_constraintTop_toTopOf="parent";
app:layout_constraintVertical_bias="0.351"; />
```



AGE CALCULATOR:

JAVA:

```
package com.example.age;
```

```
import static java.util.Calendar.*;
```

```
import android.os.Build;
```

```
import android.support.annotation.RequiresApi; import
android.support.v7.app.AppCompatActivity; import android.os.Bundle; import
android.view.View; import android.widget.Button; import android.widget.EditText;
import android.widget.TextView;
```

```
import android.widget.Toast;
```

```
import java.time.Year; import java.util.Calendar;
```

```
public class MainActivity extends AppCompatActivity {
```

```

EditText edit_enter;

TextView txtview,txtage;

Button button;

@Override

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

    edit_enter=(EditText) findViewById(R.id.edit_enter);    txtage=(TextView)
findViewById(R.id.txtage);    txtview =(TextView) findViewById(R.id.txtview);
button =(Button) findViewById(R.id.button);

    button.setOnClickListener(new View.OnClickListener() {

        @RequiresApi(api = Build.VERSION_CODES.O)

        @Override

        public void onClick(View v) {

            String userDOB= edit_enter.getText().toString().trim();

            String Year = getInstance().getCalendarType();

            int year = 0;

            if (userDOB.isEmpty()){

                Toast.makeText(MainActivity.this,"Please enter
year",Toast.LENGTH_SHORT).show();

            }

            else if (userDOB.compareTo(String.valueOf(year))>0)

            {

                Toast.makeText(MainActivity.this,"Age should be less than
year",Toast.LENGTH_SHORT).show();

            }

            else {

                int myage =year - Integer.parseInt(userDOB);

                txtage.setText("Your
age is"+myage+"year");

```

```

        }

    }

});

}

}

```

XML:

```

<?xml version="1.0" encoding="utf-8"?>

<android.support.constraint.ConstraintLayout
xmlns:android="http://schemas.android.com/apk/res/android"
xmlns:app="http://schemas.android.com/apk/res-auto"
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"    android:layout_height="match_parent"
tools:context=".MainActivity">

    <TextView        android:id="@+id/txtage"        android:layout_width="match_parent"
android:layout_height="wrap_content"        android:gravity="center_horizontal"
android:text="AGE CALCULATOR"        android:textAlignment="center"

        android:textAppearance="@style/TextAppearance.AppCompat"
android:textColor="@color/black"        android:textSize="30dp"
android:textStyle="bold"

        app:layout_constraintBottom_toBottomOf="parent"
app:layout_constraintStart_toStartOf="@+id/button"
app:layout_constraintTop_toTopOf="parent"
app:layout_constraintVertical_bias="0.139"        tools:ignore="MissingConstraints" />

    <EditText

        android:id="@+id/edit_enter"        android:layout_width="259dp"
android:layout_height="53dp"        android:inputType="number"
android:singleLine="true"        android:text="Enter Age Year"

```



```
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textColor="@color/black"        android:textSize="28sp"
```

```
        app:layout_constraintBottom_toTopOf="@+id/txtview"
        app:layout_constraintEnd_toEndOf="@+id/txtage"
        app:layout_constraintStart_toStartOf="@+id/txtage"
        app:layout_constraintTop_toBottomOf="@+id/txtage"
        tools:ignore="MissingConstraints,RtlCompat" />
```

```
<Button
```

```
        android:id="@+id/button"        android:layout_width="wrap_content"
        android:layout_height="wrap_content"        android:backgroundTint="@color/white"
        android:text="CACULATE AGE"        android:textAlignment="gravity"
```

```
        android:textAppearance="@style/TextAppearance.AppCompat.Body1"
        android:textColor="@color/black"        android:textSize="23dp"
```

```
        app:layout_constraintBottom_toTopOf="@+id/txtview"
        app:layout_constraintEnd_toEndOf="@+id/txtview"
        app:layout_constraintStart_toStartOf="@+id/txtview"
        app:layout_constraintTop_toBottomOf="@+id/edit_enter"
        tools:ignore="MissingConstraints" />
```

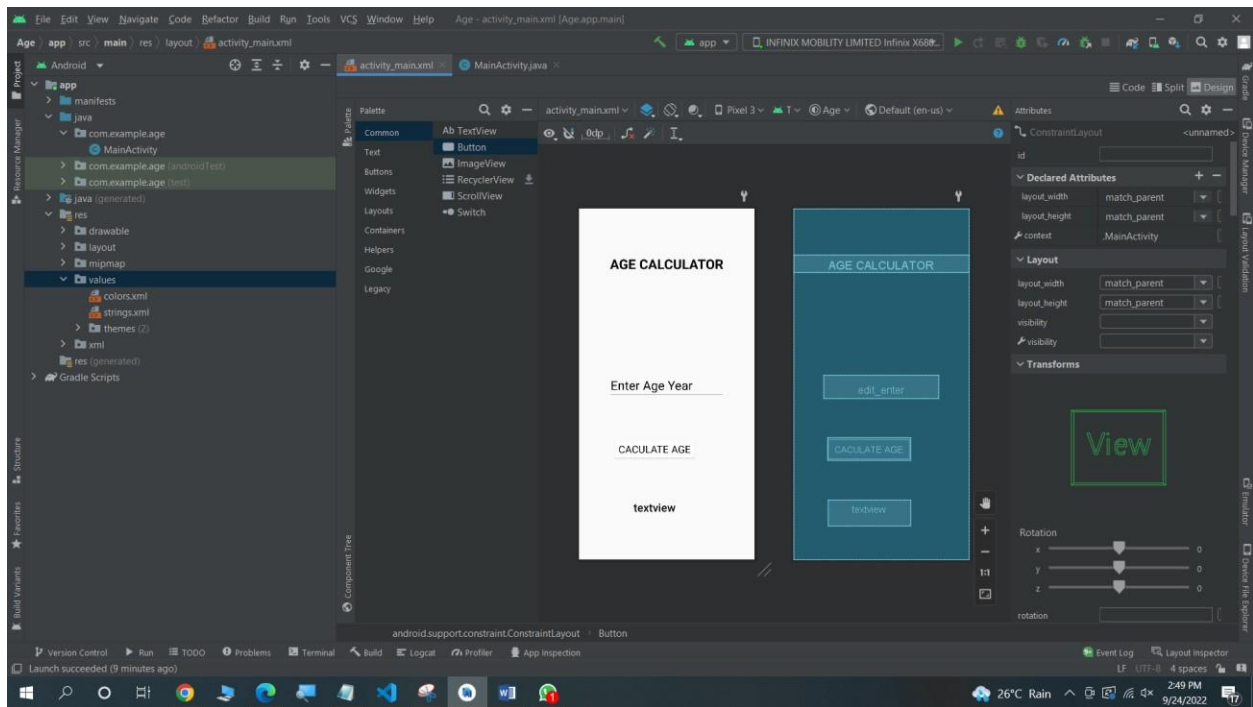
```
<TextView
```

```
        android:id="@+id/txtview"

        android:layout_width="183dp"        android:layout_height="58dp"
        android:gravity="center_horizontal"        android:text="textView"
        android:textAlignment="center"

        android:textAppearance="@style/TextAppearance.AppCompat.Body2"
        android:textColor="@color/black"        android:textSize="25dp"
        android:textStyle="normal"        tools:ignore="MissingConstraints"
        tools:layout_editor_absoluteX="78dp"        tools:layout_editor_absoluteY="652dp" />
```

```
</android.support.constraint.ConstraintLayout>
```



TEMPERATURE CONVERTOR:

JAVA:

```
package com.example.temperature;
```

```
import android.support.v7.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 {
```

```
    private Button c2f_Btn;    private Button f2c_Btn;    private EditText input_Edt;
    private TextView output_TV;
```

```
@Override
```

```

    protected void onCreate(Bundle savedInstanceState)
    {
        super.onCreate(savedInstanceState);        setContentView(R.layout.activity_main);
        c2f_Btn=findViewById(R.id.c2f_btn);        f2c_Btn=findViewById(R.id.f2c_btn);
        input_Edt=findViewById(R.id.input_edt);        output_TV=findViewById(R.id.output_tv);

        userInput();

    }

```

```

private void userInput(){

```

```

    c2f_Btn.setOnClickListener(new View.OnClickListener() {

        @Override

        public void onClick(View v) {

```

```

            ConverterClass converterClass=new ConverterClass();                double
            degCel=Double.parseDouble(input_Edt.getText().toString());        double
            degFar=converterClass.c2f_fn(degCel);
            output_TV.setText(Double.toString(degFar));

        }

    });

```

```

    f2c_Btn.setOnClickListener(new View.OnClickListener() {

        @Override

        public void onClick(View v) {

```

```

            ConverterClass converterClass=new ConverterClass();                double
            degFar=Double.parseDouble(input_Edt.getText().toString());        double
            degCel=converterClass.f2c_fn(degFar);
            output_TV.setText(Double.toString(degCel));

```

```
    }  
    });  
  
    }  
}
```

CONVERTER.JAVA:

```
package com.example.axisimski.tempconvdemo;
```

```
public class ConverterClass {
```

```
    public double c2f_fn(double celsius){
```

```
        return (celsius*1.8)+32;
```

```
    }
```

```
    public double f2c_fn(double fahrenheit){
```

```
        return (fahrenheit-32)/1.8;
```

```
    }
```

```
}
```

XML:

```
<?xml version="1.0" encoding="utf-8"?>
```

```
<android.support.constraint.ConstraintLayout
```

```
xmlns:android="http://schemas.android.com/apk/res/android"
```

```
xmlns:app="http://schemas.android.com/apk/res-auto"
```

```
xmlns:tools="http://schemas.android.com/tools"
android:layout_width="match_parent"    android:layout_height="match_parent"
tools:context=".MainActivity">
```

```
<Button
```

```
    android:id="@+id/c2f_btn"        android:layout_width="wrap_content"
    android:layout_height="wrap_content"    android:layout_marginBottom="77dp"
    android:layout_marginStart="3dp"        android:text="Celsius To Fahrenheit"
    app:layout_constraintBottom_toBottomOf="parent"
    app:layout_constraintStart_toStartOf="@+id/f2c_btn"
    app:layout_constraintTop_toBottomOf="@+id/f2c_btn" />
```

```
<Button
```

```
    android:id="@+id/f2c_btn"        android:layout_width="wrap_content"
    android:layout_height="wrap_content"    android:layout_marginBottom="43dp"
    android:layout_marginEnd="17dp"        android:text="Fahrenheit To Celsius"
    app:layout_constraintBottom_toTopOf="@+id/c2f_btn"
    app:layout_constraintEnd_toEndOf="@+id/input_edt"
    app:layout_constraintTop_toBottomOf="@+id/input_edt" />
```

```
<EditText
```

```
    android:id="@+id/input_edt"        android:layout_width="wrap_content"
    android:layout_height="wrap_content"    android:layout_marginBottom="38dp"
    android:ems="10"        android:inputType="textPersonName"        android:text=""

    app:layout_constraintBottom_toTopOf="@+id/f2c_btn"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toBottomOf="@+id/output_tv" />
```

```
<TextView
```

```
    android:id="@+id/output_tv"        android:layout_width="100dp"
    android:layout_height="0dp"        android:layout_marginBottom="70dp"
    android:layout_marginTop="91dp"        android:text=""        android:textSize="24sp"
    app:layout_constraintBottom_toTopOf="@+id/input_edt"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
```

```
</android.support.constraint.ConstraintLayout>
```

