**Practical No.1**

**Title: Android program using various UI components**

**Aim: Create an application to demonstrate various UI components**

**Implementation: Program:**

**MainActivity.java**

package com.example.converterpromax; import androidx.appcompat.app.AppCompatActivity; import java.util.Calendar; 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.text.Format;

public class MainActivity extends AppCompatActivity { private Button button; private EditText editText; private TextView textView;

@Override

protected void onCreate(Bundle savedInstanceState) { super.onCreate(savedInstanceState); setContentView(R.layout.activity\_main);

button = findViewById(R.id.button2);

editText = findViewById(R.id.editTextTextPersonName2); textView = findViewById(R.id.textView3);

button.setOnClickListener(new View.OnClickListener() {

@Override

public void onClick(View view) {

Calendar c = Calendar.getInstance(); int timeOfDay = c.get(Calendar.HOUR\_OF\_DAY);

if(timeOfDay >= 0 && timeOfDay < 12){ Toast.makeText(MainActivity.this, "",

Toast.LENGTH\_SHORT).show();

Toast.makeText(MainActivity.this, "Good Morning",

Toast.LENGTH\_SHORT).show();

}else if(timeOfDay >= 12 && timeOfDay < 16){

Toast.makeText(MainActivity.this, "Good Afternoon",

Toast.LENGTH\_SHORT).show();

}else if(timeOfDay >= 16 && timeOfDay < 21){

Toast.makeText(MainActivity.this, "Good Evening",

Toast.LENGTH\_SHORT).show();

}else if(timeOfDay >= 21 && timeOfDay < 24){

Toast.makeText(MainActivity.this, "Good Night",

Toast.LENGTH\_SHORT).show();

}

Toast.makeText(MainActivity.this, "Hi", Toast.LENGTH\_SHORT).show();

String s=editText.getText().toString();

Float cgpa=Float.parseFloat(s);

Double per=(7.1\*cgpa)+11;

textView.setText("Percentage is

"+String.format("%.2f",per));

}

});

}

**activity\_main.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" tools:context=".MainActivity">

<ImageView

android:id="@+id/imageView2" android:layout\_width="152dp" android:layout\_height="114dp"

app:layout\_constraintBottom\_toTopOf="@+id/textView2" 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="0.807" app:srcCompat="@drawable/percent" />

<TextView

android:id="@+id/textView2" android:layout\_width="375dp" android:layout\_height="122dp" android:layout\_marginBottom="20dp"

android:text="Mumbai University CGPA to % Converter" android:textAlignment="center" android:textColor="#FF5722" android:textSize="38sp" android:textStyle="bold"

app:layout\_constraintBottom\_toTopOf="@+id/editTextTextPersonName2" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" />

<EditText

android:id="@+id/editTextTextPersonName2" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginBottom="44dp" android:ems="10"

android:inputType="textPersonName" android:text="CGPA" android:textSize="24sp"

app:layout\_constraintBottom\_toTopOf="@+id/button2" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.5" app:layout\_constraintStart\_toStartOf="parent" />

<Button

android:id="@+id/button2" android:layout\_width="167dp" android:layout\_height="65dp" android:layout\_marginBottom="40dp" android:onClick="convert" android:text="Convert" android:textSize="24sp"

app:layout\_constraintBottom\_toTopOf="@+id/textView3" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintHorizontal\_bias="0.5" app:layout\_constraintStart\_toStartOf="parent" />

<TextView

android:id="@+id/textView3" android:layout\_width="wrap\_content" android:layout\_height="wrap\_content" android:layout\_marginBottom="88dp" android:inputType="number|text" android:text="Result" android:textSize="24sp"

app:layout\_constraintBottom\_toBottomOf="parent" app:layout\_constraintEnd\_toEndOf="parent" app:layout\_constraintStart\_toStartOf="parent" />

</androidx.constraintlayout.widget.ConstraintLayout>

**Output:**

