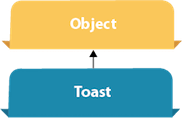
Practical No. 4

**Title: Android program for notifications and alert box**

**Aim: Create an application to demonstrate notifications and alert box**

**Introduction**

Android Toast Example



Andorid Toast can be used to display information for the short period of time. A toast contains message to be displayed quickly and disappears after sometime.

The android.widget.Toast class is the subclass of java.lang.Object class.

You can also create custom toast as well for example toast displaying image. You can visit next page to see the code for custom toast.

**Toast class**

Toast class is used to show notification for a particular interval of time. After sometime it disappears. It doesn't block the user interaction.

There are only 2 constants of Toast class which are given below.

|  |  |
| --- | --- |
| **Constant** | **Description** |
| public static final int LENGTH\_LONG | displays view for the long duration of time. |

|  |  |
| --- | --- |
| public static final int LENGTH\_SHORT | displays view for the short duration of time. |

# Methods of Toast class

The widely used methods of Toast class are given below.

|  |  |
| --- | --- |
| **Method** | **Description** |
| public static Toast makeText(Context context, CharSequence text, int duration) | makes the toast containing text and duration. |
| public void show() | displays toast. |
| public void setMargin (float horizontalMargin, float verticalMargin) | changes the horizontal and vertical margin difference. |

**Exercise - Create android application to demonstrate notifications and alert box**

# 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"](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:

