Practical no 13 Develop a program to implement progressbar

1) Write a program to display circular progress bar

```
XML file:
<?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"
  tools:context=".MainActivity">
  <ProgressBar
    android:layout_width="200dp"
    android:layout_height="200dp"
    android:id="@+id/p1"
    android:foregroundGravity="center"/>
</RelativeLayout>
Java file:
package com.example.p13_1;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.ProgressBar;
public class MainActivity extends AppCompatActivity {
ProgressBar myprogressbar;
int myprogress=0;
Thread mythread:
@Override
protected void onCreate(Bundle savedInstanceState) {
super.onCreate(savedInstanceState);
setContentView(R.layout.activity main);
    myprogressbar=findViewById(R.id.p1);
    mythread=new Thread();
     mythread.start();
```

```
public void run()
{
    while (myprogress<100)
{
        try
        {
            myprogress++;
            myprogressbar.setProgress(myprogress);
        Thread.sleep(100);
    }
    catch (Exception e)
        {
        }
    }
}</pre>
```

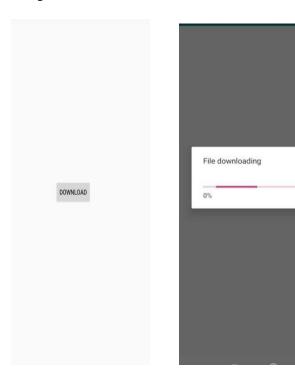


2) Write a program to display following output

```
<?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"
         tools:context=".MainActivity">
         <Button
           android:layout_width="wrap_content"
           android:layout height="wrap content"
           android:text="Download"
           android:onClick="download"
           android:id="@+id/b1"
           android:layout_marginLeft="125dp"
           android:layout_marginStart="125dp"
           android:layout_centerVertical="true"/>
       </RelativeLayout>
Java file:
 package com.example.p13_1;
import androidx.appcompat.app.AppCompatActivity;
import android.app.ProgressDialog;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
public class MainActivity extends AppCompatActivity {
Button b1;
@Override
protected void onCreate(Bundle savedInstanceState) {
  super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
b1=findViewById(R.id.b1);
  }
```

```
private ProgressDialog progress;
 public void download(View view) {
 progress = new ProgressDialog(this);
 progress.setMessage("File downloading");
  progress.setProgressStyle(ProgressDialog.STYLE_HORIZONTAL);
  progress.setIndeterminate(true);
  progress.setProgress(0);
  progress.show();
  final int totalProgressTime = 100;
  final Thread t = new Thread() {
    public void run() {
       int jumpTime = 0;
       while (jumpTime < totalProgressTime) {</pre>
         try {
            sleep(200);
           jumpTime += 5;
            progress.setProgress(jumpTime);
         } catch (InterruptedException e) {
            e.printStackTrace();
  };
  t.start();
```

}



0/100

Practical no 14 Develop a program to implement listview, gridview, imageview, scrollview

1) Write a program to display following output. Use appropriate view.

```
<?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"
  tools:context=".MainActivity"
  android:orientation="vertical">
  <ListView
    android:layout_width="wrap_content"
    android:layout height="wrap content"
    android:id="@+id/l1"
    ></ListView>
</LinearLayout>
Java file:
package com.example.myapplication3;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.ArrayAdapter;
import android.widget.ListView;
public class MainActivity extends AppCompatActivity {
  String[] mobile_array={"java","c++","c#","html","python","Ajax","sap","Ruby"};
  ListView 1;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    ArrayAdapter adapter=new
```



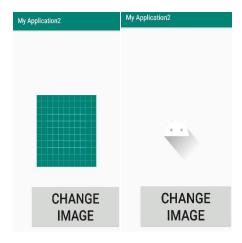
2) Write a program to display an image using image view and a button named "Change Image" once you click on button image should get changed.

```
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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"
  tools:context=".MainActivity"
  android:orientation="vertical">
  <ImageView
    android:layout_width="200dp"
    android:layout_height="200dp"
    android:id="@+id/i1"
    android:layout_centerInParent="true"
    android:src="@drawable/ic_launcher_background"
    ></ImageView>
  <Button
```

```
android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Change Image"
    android:textSize="40dp"
    android:id="@+id/b1"
    android:layout_below="@id/i1"
    android:layout_marginLeft="60dp"
    android:layout_marginTop="50dp"
    ></Button>
</RelativeLayout>
Java file:
package com.example.myapplication2;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.ImageView;
public class MainActivity extends AppCompatActivity {
  ImageView ii1;
  Button bb1;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity main);
    ii1=findViewById(R.id.i1);
    bb1=findViewById(R.id.b1);
    bb1.setOnClickListener(new View.OnClickListener() {
       @Override
       public void onClick(View v) {
         ii1.setBackgroundResource(R.drawable. ic launcher foreground"
    ></ImageView>
);
    });
```

```
}
}
```

output:



3) Write a program to display text view using vertical scroll view

Xml file:

```
<?xml version="1.0" encoding="utf-8"?>
<ScrollView xmlns:app="http://schemas.android.com/apk/res-auto"</p>
  xmlns:tools="http://schemas.android.com/tools"
  android:layout_width="match_parent"
  android:layout_height="match_parent"
  android:id="@+id/s1"
  xmlns:android="http://schemas.android.com/apk/res/android"
  android:orientation="vertical">
<RelativeLayout
  android:layout_width="match_parent"
android:layout_height="match_parent"
tools:context=".MainActivity">
  <TextView
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:id="@+id/t1"
    android:text="This is text view "
    android:textSize="30dp"
    android:layout_marginLeft="50dp"
    ></TextView>
```

```
<TextView
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:id="@+id/t2"
  android:text="This is text view "
  android:layout_marginLeft="50dp"
  android:textSize="30dp"
  android:layout_below="@id/t1"
  ></TextView>
<TextView
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:id="@+id/t3"
  android:text="This is text view "
  android:textSize="30dp"
  android:layout_marginLeft="50dp"
  android:layout below="@id/t2"
  ></TextView>
<TextView
  android:id="@+id/t4"
  android:layout width="wrap content"
  android:layout_height="wrap_content"
  android:layout_below="@id/t3"
  android:layout_marginLeft="50dp"
  android:layout_marginTop="13dp"
  android:text="This is text view "
  android:textSize="30dp"></TextView>
<TextView
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:id="@+id/t5"
  android:text="This is text view "
  android:textSize="30dp"
  android:layout_marginLeft="50dp"
  android:layout_below="@id/t4"
  ></TextView>
<TextView
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:id="@+id/t6"
android:text="This is text view "
android:textSize="30dp"
android:layout_marginLeft="50dp"
```

```
android:layout_below="@id/t5"
></TextView>
<TextView
android:layout_width="wrap_content"
></TextView>
<TextView
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:id="@+id/t8"
  android:text="This is text view "
  android:textSize="30dp"
  android:layout_marginLeft="50dp"
  android:layout below="@id/t7"
  ></TextView>
<TextView
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:id="@+id/t9"
  android:text="This is text view "
  android:layout_marginLeft="50dp"
  android:textSize="30dp"
  android:layout below="@id/t8"
  ></TextView>
<TextView
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:id="@+id/t10"
  android:text="This is text view "
  android:textSize="30dp"
  android:layout marginLeft="50dp"
  android:layout_below="@id/t9"
  ></TextView>
<TextView
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:layout below="@id/t10"
  android:id="@+id/t11"
  android:text="This is text view "
  android:textSize="30dp"
  android:layout marginLeft="50dp"
  ></TextView>
<TextView
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
```

```
android:id="@+id/t12"
  android:text="This is text view "
  android:layout_marginLeft="50dp"
  android:textSize="30dp"
  android:layout below="@id/t11"
  ></TextView>
<TextView
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:id="@+id/t13"
  android:text="This is text view "
  android:textSize="30dp"
  android:layout_marginLeft="50dp"
  android:layout_below="@id/t12"
  ></TextView>
<TextView
  android:id="@+id/t14"
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:layout_below="@id/t13"
  android:layout marginLeft="50dp"
  android:layout_marginTop="13dp"
  android:text="This is text view "
  android:textSize="30dp"></TextView>
<TextView
  android:layout_width="wrap_content"
  android:layout height="wrap content"
  android:id="@+id/t15"
  android:text="This is text view "
  android:textSize="30dp"
  android:layout_marginLeft="50dp"
  android:layout_below="@id/t14"
  ></TextView>
<TextView
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:id="@+id/t16"
  android:text="This is text view "
  android:textSize="30dp"
  android:layout_marginLeft="50dp"
  android:layout_below="@id/t15"
  ></TextView>
<TextView
```

```
android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:id="@+id/t17"
  android:text="This is text view "
  android:layout_marginLeft="50dp"
  android:textSize="30dp"
  android:layout below="@id/t16"
  ></TextView>
<TextView
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:id="@+id/t18"
  android:text="This is text view "
  android:textSize="30dp"
  android:layout_marginLeft="50dp"
  android:layout_below="@id/t17"
  ></TextView>
<TextView
  android:layout_width="wrap_content"
  android:layout_height="wrap_content"
  android:id="@+id/t19"
  android:text="This is text view "
  android:layout_marginLeft="50dp"
  android:textSize="30dp"
  android:layout_below="@id/t18"
  ></TextView>
```

```
</RelativeLayout> </ScrollView>
```

My Application3

This is text view

This is text view This is text view

This is text view

This is text view

This is text view

This is text view

This is text view

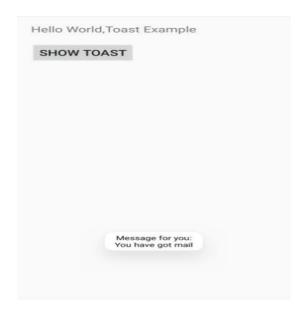
This is text view

Practical no 15 Develop a program to implement Custom toast alert

1) Write a program to display following toast message

```
XML file:
 <?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=".MainActivity">
   <TextView
     android:layout_width="wrap_content"
     android:layout_height="wrap_content"
     android:text="Hello World, Toast Example"
     android:textSize="20dp"
     android:id="@+id/t1"
    android:layout_marginTop="20dp"
    android:layout_marginLeft="20dp"/>
   <Button
     android:layout_width="wrap_content
    android:layout_height="wrap_content"
     android:text="Show toast"
     android:id="@+id/b1"
     android:layout_marginLeft="20dp"
```

```
android:layout_marginTop="20dp"
          </LinearLayout>
    java file:
     package com.example.p15_1;
     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;
public class MainActivity extends AppCompatActivity {
Button bu1;
TextView tv1;
  @Override
 protected void onCreate(Bundle savedInstanceState) {
  super.onCreate(savedInstanceState);
  setContentView(R.layout.activity_main);
    bu1=findViewById(R.id.b1);
    tv1=findViewById(R.id.t1);
    bu1.setOnClickListener(new View.OnClickListener() {
    @Override
      public void onClick(View v) {
      Toast.makeText(MainActivity.this, "Message for you:"+"\n"+"You have got mail",
Toast.LENGTH_SHORT).show();
      }
    });
  }
}
```



:

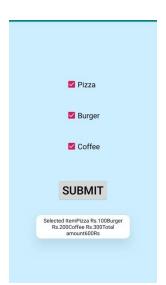
1) Write a program to display three checkboxes and one button named "order" as shown below once you select the button it should display different selected checkboxes along with items individual and total price.

```
android:textSize="20sp"
    android:layout_marginLeft="150dp"
    android:layout_marginTop="150dp"
    />
  <CheckBox
    android:id="@+id/cb2"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="Burger"
    android:gravity="center"
    android:layout_marginLeft="150dp"
    android:layout_marginTop="50dp"
    android:textSize="20sp"
  />
  <CheckBox
    android:id="@+id/cb3"
    android:layout width="wrap content"
    android:layout_height="wrap_content"
    android:text="Coffee"
    android:textSize="20sp"
    android:gravity="center"
    android:layout_marginLeft="150dp"
    android:layout_marginTop="50dp"
    />
  <Button
    android:id="@+id/b1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_gravity="center"
    android:gravity="center"
    android:text="Submit"
    android:layout_marginTop="70dp"
    android:textSize="30sp"
    android:textColor="#000000"
  />
</LinearLayout>
```

```
java file:
```

```
package com.example.checkbox;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.CheckBox;
import android.widget.Toast;
public class MainActivity extends AppCompatActivity {
  CheckBox pizza,burger,coffee;
 Button bu1;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    pizza=findViewById(R.id.cb1);
    burger=findViewById(R.id.cb2);
    coffee=findViewById(R.id.cb3);
     bu1=findViewById(R.id.b1);
    bu1.setOnClickListener(new View.OnClickListener() {
       @Override
       public void onClick(View v) {
       StringBuffer res=new StringBuffer();
         int sum=0;
         res.append("Selected Item");
         if(pizza.isChecked())
         {
           res.append("Pizza Rs.100");
           sum=sum+100;
```

```
if (burger.isChecked())
    {
      res.append("Burger Rs.200");
      sum=sum+200;
    if (coffee.isChecked())
      res.append("Coffee Rs.300");
      sum=sum+300;
     }
    res.append ("Total\ amount" + sum + "Rs");
    Toast.makeText(MainActivity.this, res.toString(), Toast.LENGTH_LONG).show();
  }
});
```



Practical No 16: Develop a program to implement Date and Time Picker

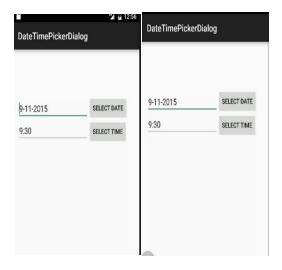
1) Write a program to display following output

```
RelativeLayout xmlns:android="https://schemas.android.com/apk/res/android"
  xmlns:tools="https://schemas.android.com/tools" android:layout_width="match_parent"
  android:layout height="match parent"
android:paddingLeft="@dimen/activity_horizontal_margin"
  android:paddingRight="@dimen/activity horizontal margin"
  android:paddingTop="@dimen/activity_vertical_margin"
  android:paddingBottom="@dimen/activity_vertical_margin" tools:context=".MainActivity">
  <EditText
    android:layout width="200dp"
    android:layout_height="wrap_content"
    android:id="@+id/in date"
    android:layout marginTop="82dp"
    android:layout_alignParentTop="true"
    android:layout alignParentLeft="true"
    android:layout alignParentStart="true" />
  <Button
    android:layout_width="wrap_content"
    android:layout height="wrap content"
    android:text="SELECT DATE"
    android:id="@+id/btn date"
    android:layout_alignBottom="@+id/in_date"
    android:layout toRightOf="@+id/in date"
    android:layout toEndOf="@+id/in date"/>
  <EditText
    android:layout width="200dp"
    android:layout_height="wrap_content"
    android:id="@+id/in time"
    android:layout_below="@+id/in_date"
    android:layout_alignParentLeft="true"
    android:layout_alignParentStart="true" />
  <Button
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:text="SELECT TIME"
    android:id="@+id/btn time"
    android:layout below="@+id/btn date"
    android:layout_alignLeft="@+id/btn_date"
    android:layout_alignStart="@+id/btn_date"/>
```

```
</RelativeLayout>
```

```
Java file:
package com.example.myapplication;
import android.app.AppCompatActivity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.EditText;
import android.widget.TimePicker;
import java.util.Calendar;
public class MainActivity extends AppCompatActivity implements
    View.OnClickListener {
Button btnDatePicker, btnTimePicker;
  EditText Date, Time;
  public int Year, Month, Day, Hour, Minute;
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    btnDatePicker=(Button)findViewById(R.id.btn_date);
    btnTimePicker=(Button)findViewById(R.id.btn_time);
    Date=(EditText)findViewById(R.id.in_date);
    Time=(EditText)findViewById(R.id.in_time);
    btnDatePicker.setOnClickListener(this);
    btnTimePicker.setOnClickListener(this);
  }
  @Override
  public void onClick(View v) {
    if (v == btnDatePicker) {
      // Get Current Date
```

```
final Calendar c = Calendar.getInstance();
       Year = c.get(Calendar.YEAR);
       Month = c.get(Calendar.MONTH);
      Day = c.get(Calendar.DAY_OF_MONTH);
DatePickerDialog datePickerDialog = new
                                                     DatePickerDialog(this,
new DatePickerDialog.OnDateSetListener() {
@Override
public void onDateSet(DatePicker view, int year,
int monthOfYear, int dayOfMonth) {
Date.setText(dayOfMonth + "-" + (monthOfYear + 1) + "-" + year);
          }, mYear, mMonth, mDay);
           datePickerDialog.show();
    if (v == btnTimePicker) {
      final Calendar c = Calendar.getInstance();
       Hour = c.get(Calendar.HOUR_OF_DAY);
      Minute = c.get(Calendar.MINUTE);
TimePickerDialog timePickerDialog = new TimePickerDialog(this,
           new TimePickerDialog.OnTimeSetListener() {
 @Override
public void onTimeSet(TimePicker view, int hourOfDay,
                          int minute) {
Time.setText(hourOfDay + ":" + minute);
              } }, Hour, Minute, false);
            timePickerDialog.show();
    }
  }
```



1) Write a program to display following output use Timepicker with spinner mode.

XML file:

```
<?xml version="1.0" encoding="utf-8"?>
  <RelativeLayout 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"
  tools:context=".MainActivity"
  android:orientation="vertical">
<TimePicker android:layout_width="wrap_content"</pre>
  android:layout_height="wrap_content"
  android:layout centerHorizontal="true"
  android:id="@+id/timePicker"
  android:timePickerMode="spinner"
  xmlns:android="http://schemas.android.com/apk/res/android" />
<Button
android:text="Display"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_below="@+id/timePicker"
android:layout_centerHorizontal="true"
android:layout_marginTop="35dp"
android:id="@+id/button"/>
```

<TextView

```
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:textSize="24sp"
android:layout_below="@+id/button"
android:gravity="center"
android:layout_centerHorizontal="true"
android:layout marginTop="52dp"
android:id="@+id/textView"/>
  </RelativeLayout>
Java file:
package com.example.myapplication;
import android.os.Build;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.widget.TimePicker;
import androidx.annotation.RequiresApi;
import androidx.appcompat.app.AppCompatActivity;
public class MainActivity extends AppCompatActivity {
  TimePicker tp;
  Button b1;
  TextView tv:
  @Override
  protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    tp=(TimePicker) findViewById(R.id.timePicker);
    b1=(Button) findViewById(R.id.button);
    tv=(TextView) findViewById(R.id.textView);
    tp.setIs24HourView(true);
    b1.setOnClickListener(new View.OnClickListener() {
       @RequiresApi(api = Build.VERSION_CODES.M)
       @Override
       public void onClick(View v) {
         StringBuffer sb= new StringBuffer();
         if(tp.getHour()==0)
```

```
{
    sb.append((tp.getHour()+12)+":");
    sb.append(tp.getMinute()+":");
    sb.append("AM");
}
else if(tp.getHour()>11)
{
    sb.append((tp.getHour()-12)+":");
    sb.append(tp.getMinute()+":");
    sb.append("PM");
}
else
{
    sb.append((tp.getHour())+":");
    sb.append(tp.getMinute()+":");
    sb.append("AM");
    }
    tv.setText(sb.toString());
}
});
}
```

output:

```
21 11
22 : 12
23 13
DISPLAY
```