Exercise:

1. **Write a program to display following output**
   Timepicker
   - **activity_main.xml**

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
xmlns:android="http://schemas.android.
com/apk/res/android"
xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <TimePicker android:id="@+id/time"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:timePickerMode="clock"
        android:padding="20dp"
        android:background="#D89DF1"/>
    <Button android:id="@+id/b1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/time"
        android:layout_marginTop="70dp"
        android:layout_centerHorizontal="true"
        android:text="Submit"
        android:textStyle="bold"
        android:onClick="Submit"
        tools:ignore="OnClick"/>
    <TextView android:id="@+id/text1"
        android:layout_above="@+id/b1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=""
        android:textSize="25dp"
        android:textStyle="bold"/>
</RelativeLayout>
<?xml version="1.0" encoding="utf-8"?>
```

```xml
<RelativeLayout
xmlns:android="http://schemas.android.com/
apk/res/android"
xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    tools:context=".MainActivity">
    <TimePicker  android:id="@+id/time"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:timePickerMode="clock"
        android:padding="20dp"
        android:background="#D89DF1"/>
    <Button   android:id="@+id/b1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/time"
        android:layout_marginTop="70dp"
        android:layout_centerHorizontal="true"
        android:text="Submit"
        android:textStyle="bold"
        android:onClick="Submit"
        tools:ignore="OnClick"/>
    <TextView
        android:id="@+id/text1"
        android:layout_above="@+id/b1"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text=""
        android:textSize="25dp"
        android:textStyle="bold"/>
</RelativeLayout>
```

   - **acitivitymain.java**

```java
package
com.example.pr16q1_timepicker;
import androidx.appcompat.app.
AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.TextView;
import android.widget.TimePicker;
public class MainActivity extends
AppCompatActivity {TextView textview;
TimePicker timePicker; Button button;
protected void onCreate(Bundle
savedInstanceState) {
    super.onCreate(savedInstanceState);
setContentView(R.layout.activity_main);
timePicker=findViewById(R.id.time);
    textview=findViewById(R.id.text1);
    button=findViewById(R.id.b1);
    button.setOnClickListener(new
View.OnClickListener() {
public void onClick(View v) {
        textview.setText("You
Selected:" + "" +timePicker.getHour()+ "
" + timePicker.getMinute() ); }});}
```

DATEPICKER

Activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout
xmlns:android="http://schemas.android.
com/apk/res/android"
xmlns:tools="http://schemas.android.co
m/tools"
android:layout_width="match_parent"
android:layout_height="match_parent"
    tools:context=".MainActivity">
    <TextView android:id="@+id/t1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
        android:text="DatePicker"
        android:textSize="25dp">
    </TextView>
    <DatePicker
      android:id="@+id/d1"
    android:layout_marginTop="100dp"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
        android:layout_alignTop="@id/t1"
```

```xml
]android:layout_centerInParent="true"
android:calendarViewShown="true"
android:datePickerMode="spinner">
    </DatePicker><Button
android:id="@+id/b1"
      android:layout_marginTop="50dp"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
      android:text="Submit"
android:layout_centerInParent="true"
      android:layout_below="@id/d1"
      android:onClick="submit"
      tools:ignore="OnClick"></Button>
    <TextView android:id="@+id/t2"
      android:layout_marginTop="20dp"
      android:layout_below="@+id/b1"
android:layout_width="match_parent"
android:layout_height="wrap_content"
android:layout_centerInParent="true"
      android:textSize="20dp">
    </TextView></RelativeLayout>
```

MainActivity.java

```java
package
com.example.pr16q1_dateppicker;
import
androidx.appcompat.app.AppCompatAct
ivity;

import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.DatePicker;
import android.widget.TextView;

public class MainActivity extends
AppCompatActivity {
    DatePicker datePicker1;
    TextView textView1,textView2;
    Button button1;
    @Override
    protected void onCreate(Bundle
savedInstanceState) {
```
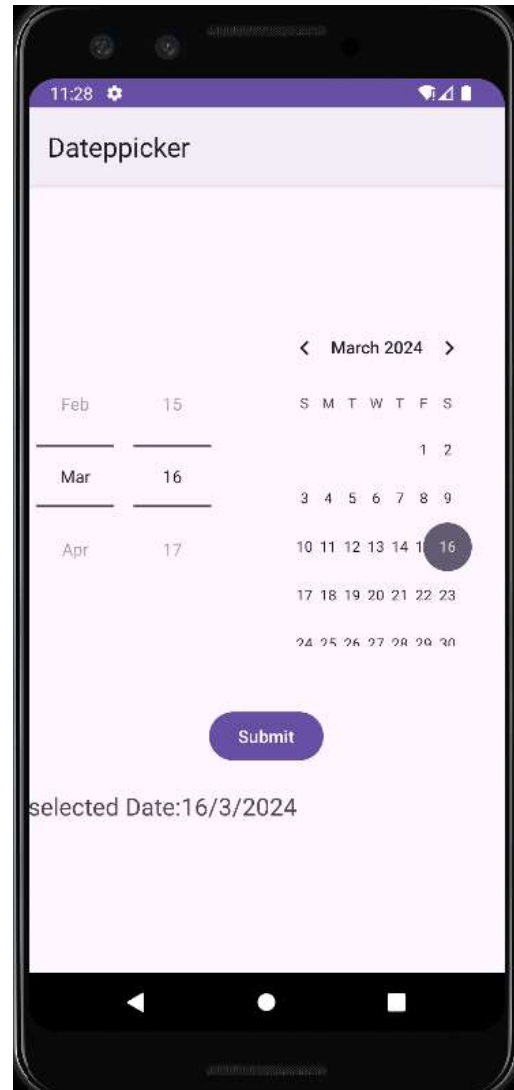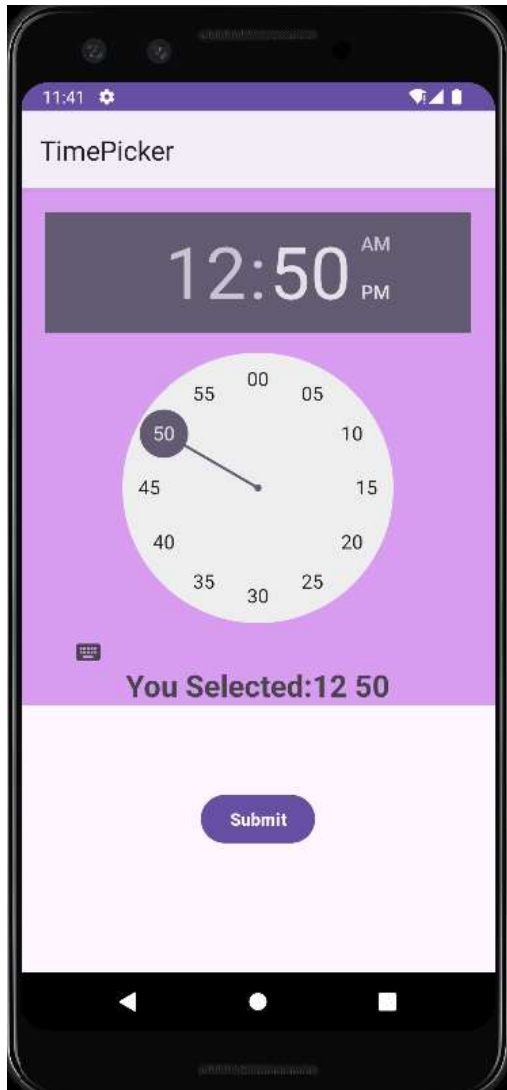
```java
        super.onCreate(savedInstanceState);

setContentView(R.layout.activity_main);
        datePicker1=findViewById(R.id.d1);
        textView1=findViewById(R.id.t1);
        textView1=findViewById(R.id.t2);
        button1=findViewById(R.id.b1);
        button1.setOnClickListener(new
View.OnClickListener() {
            @Override
            public void onClick(View v) {
                textView1.setText("selected
Date:"+datePicker1.getDayOfMonth()+"
/"+(datePicker1.getMonth()+1+"/"+date
Picker1.getYear()));
            }
        });
    }
}
```

OUTPUT:

2.

Activity_main.xml

```xml
<?xml version="1.0" encoding="utf-8"?>
<TableLayout
xmlns:android="http://schemas.android.com/
apk/res/android"
xmlns:tools="http://schemas.android.com/too
ls"
   android:layout_width="match_parent"
   android:layout_height="match_parent"
   android:orientation="vertical"
   android:layout_margin="10dp"
   tools:context=".MainActivity">
   <TableRow
android:layout_marginTop="50dp">
     <EditText
        android:id="@+id/e1"
        android:layout_width="194dp"
      android:layout_height="wrap_content"
        android:hint="Date"></EditText>
     <Button
        android:id="@+id/b1"
        android:layout_width="130dp"
        android:text="Select Date"
android:layout_height="wrap_content">
     </Button>
   </TableRow>
   <TableRow>
     <EditText
        android:id="@+id/e2"
        android:layout_width="194dp"
      android:layout_height="wrap_content"
        android:hint="Time">
     </EditText>
     <Button
        android:id="@+id/b2"
        android:layout_width="130dp"
        android:text="Select Time"
      android:layout_height="wrap_content">
     </Button>
   </TableRow>
</TableLayout>
```

MainActivity.java

```java
package com.example.pr16q2;
import androidx.appcompat.app.
AppCompatActivity;
import android.app.DatePickerDialog;
import android.app.TimePickerDialog;
import android.os.Bundle;
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 {
   EditText ed1, ed2;
   Button bu1, bu2;
   int mYear,
mMonth,mDay,mHour,mMinute;
   @Override
   protected void onCreate(Bundle
savedInstanceState) {
     super.onCreate(savedInstanceState);

setContentView(R.layout.activity_main);
     ed1 = findViewById(R.id.e1);
     ed2 = findViewById(R.id.e2);
     bu1 = findViewById(R.id.b1);
     bu2 = findViewById(R.id.b2);

   bu1.setOnClickListener(new
View.OnClickListener() {
       @Override
       public void onClick(View v) {
         final Calendar c =
Calendar.getInstance();
         mYear = c.get(Calendar.YEAR);
         mMonth =
c.get(Calendar.MONTH);
         mDay =
c.get(Calendar.DAY_OF_MONTH);
DatePickerDialog datePickerDialog =
new
DatePickerDialog(MainActivity.this,new
DatePickerDialog.OnDateSetListener() {
public void onDateSet(DatePicker view,
int year,
                          int
monthOfYear, int dayOfMonth) {

ed1.setText(dayOfMonth + "-" +
(monthOfYear + 1) + "-" + year);
               }
         }, mYear, mMonth,mDay);
       datePickerDialog.show();
     } });
   bu2.setOnClickListener(new
View.OnClickListener() {
public void onClick(View v) {
```

```
final Calendar c =
Calendar.getInstance();
mHour =
c.get(Calendar.HOUR_OF_DAY);
mMinute = c.get(Calendar.MINUTE);
TimePickerDialog timePickerDialog =
new
TimePickerDialog(MainActivity.this,new
TimePickerDialog.OnTimeSetListener() {
```

```
public void onTimeSet(TimePicker view,
int hourOfDay,
int minute) {
ed2.setText(hourOfDay + ":" + minute);
}
}, mHour, mMinute, false);
timePickerDialog.show();
}
});}
}
```

OUTPUT:

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