

## Practical No 16

### X.1

- **Program**
- **XML File:**

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

<ScrollView 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" >

    <RelativeLayout
        android:layout_width="match_parent"
        android:layout_height="match_parent">

        <TextView
            android:id="@+id/textView4"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_below="@+id/sp2"
            android:layout_alignParentStart="true"
            android:layout_centerHorizontal="true"
            android:layout_marginStart="167dp"
            android:layout_marginTop="24dp"
            android:text="24 Hours"
            android:textColor="#040303"
            android:textSize="20sp"
            android:textStyle="bold"
            app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintHorizontal_bias="0.498"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
<TimePicker
    android:id="@+id/sp24"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/sp2"
    android:layout_alignParentStart="true"
    android:layout_centerHorizontal="true"
    android:layout_marginStart="118dp"
    android:layout_marginTop="37dp"
    android:timePickerMode="spinner" />
<TextView
    android:id="@+id/textView3"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentStart="true"
    android:layout_alignParentTop="true"
    android:layout_centerHorizontal="true"
    android:layout_marginStart="170dp"
    android:layout_marginTop="38dp"
    android:text="AM/PM"
    android:textColor="#040303"
    android:textSize="20sp"
    android:textStyle="bold"
    app:layout_constraintEnd_toEndOf="parent"
```

```
app:layout_constraintHorizontal_bias="0.498"
app:layout_constraintStart_toStartOf="parent"
app:layout_constraintTop_toTopOf="parent" />
<TimePicker
    android:id="@+id/sp2"
    android:layout_width="333dp"
    android:layout_height="240dp"
    android:layout_alignParentTop="true"
    android:layout_alignParentEnd="true"
    android:layout_centerHorizontal="true"
    android:layout_marginTop="58dp"
    android:layout_marginEnd="34dp"
    android:timePickerMode="spinner"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />
<TimePicker
    android:id="@+id/clock"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_below="@+id/sp24"
    android:layout_alignParentEnd="true"
    android:layout_marginTop="20dp"
    android:layout_marginEnd="0dp"
    app:layout_constraintEnd_toEndOf="parent"
    app:layout_constraintHorizontal_bias="0.0"
    app:layout_constraintStart_toStartOf="parent"
```

```
app:layout_constraintTop_toTopOf="parent" />

</RelativeLayout>

</ScrollView>
```

- **JAVA File:**

```
package com.example.pr_16_a;

import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.widget.TimePicker;

public class MainActivity extends AppCompatActivity {

    @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        TimePicker spinner=findViewById(R.id.sp24);

        TimePicker clock=findViewById(R.id.clock);

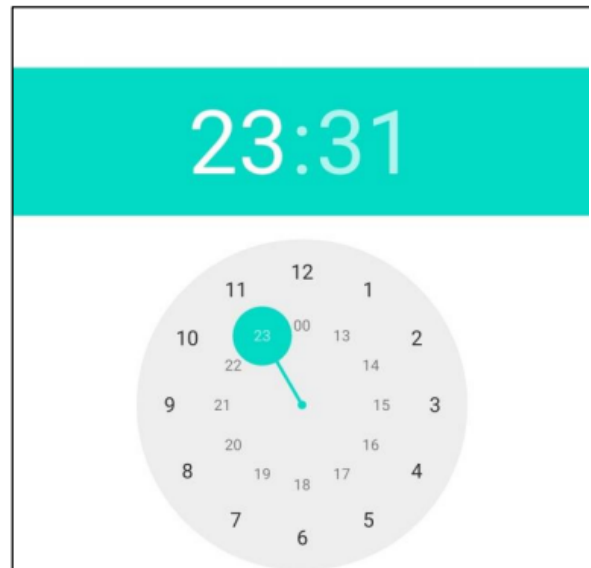
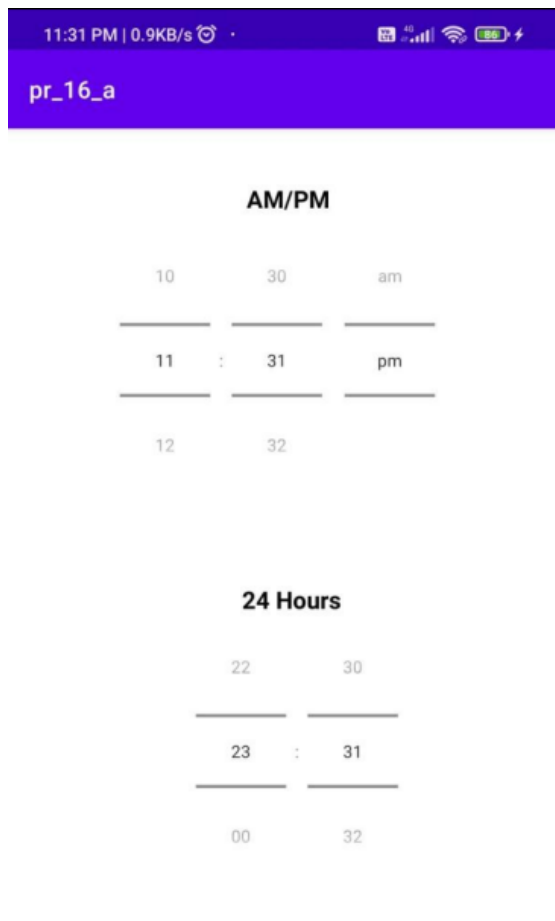
        spinner.setIs24HourView(true);

        clock.setIs24HourView(true);

    }

}
```

- **Output:**



## X.2

- **Program**
- **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">
```

```
<Button
```

```
android:id="@+id/b2"
```

```
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentTop="true"
android:layout_alignParentEnd="true"
android:layout_marginTop="264dp"
android:layout_marginEnd="24dp"
android:text="Select Time" />
<EditText
android:id="@+id/t2"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_below="@+id/t1"
android:layout_alignParentStart="true"
android:layout_marginStart="47dp"
android:layout_marginTop="33dp"
android:ems="10"
android:inputType="textPersonName" />
<EditText
android:id="@+id/t1"
android:layout_width="wrap_content"
android:layout_height="wrap_content"
android:layout_alignParentStart="true"
android:layout_alignParentTop="true"
android:layout_marginStart="46dp"
android:layout_marginTop="196dp"
android:ems="10"
android:inputType="textPersonName" />
```

```

<Button
    android:id="@+id/b1"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_alignParentTop="true"
    android:layout_alignParentEnd="true"
    android:layout_marginTop="192dp"
    android:layout_marginEnd="22dp"
    android:text="Select Date" />
</RelativeLayout>

```

- **JAVA File:**

```

package com.example.pr_16_b;

import androidx.appcompat.app.AppCompatActivity;
import android.app.DatePickerDialog;
import android.app.TimePickerDialog;
import android.graphics.Color;
import android.graphics.drawable.ColorDrawable;
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.text.ParseException;
import java.text.SimpleDateFormat;
import java.util.Calendar;
import java.util.Date;

public class MainActivity extends AppCompatActivity {
    Button b1,b2;
    EditText t1,t2;

```

```

int tHour,tMiniute;

@Override
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);
    b1=findViewById(R.id.b1);
    b2=findViewById(R.id.b2);
    t1=findViewById(R.id.t1);
    t2=findViewById(R.id.t2);
    Calendar calendar=Calendar.getInstance();
    final int year=calendar.get(Calendar.YEAR);
    final int month=calendar.get(Calendar.MONTH);
    final int day=calendar.get(Calendar.DAY_OF_MONTH);
    b1.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {
            DatePickerDialog datePickerDialog=new DatePickerDialog(
                MainActivity.this, new
                DatePickerDialog.OnDateSetListener() {
                    @Override
                    public void onDateSet(DatePicker datePicker, int year, int month, int
                    day)
                    {
                        month = month+1;
                        String date= day+"/"+month+"/"+year;
                        t1.setText(date);
                    }
                },year,month,day);
            datePickerDialog.show();
        }
    });
    b2.setOnClickListener(new View.OnClickListener() {
        @Override
        public void onClick(View view) {

```



```

TimePickerDialog timePickerDialog=new TimePickerDialog(
MainActivity.this, android.R.style.Theme_Holo_Dialog_MinWidth,
new TimePickerDialog.OnTimeSetListener() {
@Override

public void onTimeSet(TimePicker view, int hourOfDay, int minute) {
tHour=hourOfDay;
tMiniute=minute;
String time1=tHour+":"+tMiniute;
SimpleDateFormat f24hours =new SimpleDateFormat( "HH:mm" );
try{
Date date= f24hours.parse(time1);
SimpleDateFormat f12Hours= new SimpleDateFormat("hh:mm aa" );
t2.setText(f12Hours.format(date));
}
catch (ParseException e) {
e.printStackTrace();
}
}
},12,0,false
);
timePickerDialog.getWindow().setBackgroundDrawable(new
ColorDrawable(Color.TRANSPARENT));
timePickerDialog.updateTime(tHour,tMiniute);
timePickerDialog.show();
}
});
}
}

```

- **Output:**

