**Name:** Khot Aniket Tanaji  
**Batch & Roll:** A3-63

**Experiment No.4**

**Title:** To implement Date & Time application.

**MainActivity.java**

package com.example.expt4;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.content.Intent;  
import android.os.Bundle;  
import android.view.View;  
import android.widget.Button;  
  
public class MainActivity extends AppCompatActivity {  
  
 Button forDate, forTime;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.activity\_main);  
 forDate = findViewById(R.id.datePicker);  
 forTime = findViewById(R.id.timePicker);  
  
 forDate.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 Intent dateIntent = new Intent(MainActivity.this,DatePicker.class);  
 startActivity(dateIntent);  
 }  
 });  
  
 forTime.setOnClickListener(new View.OnClickListener() {  
 @Override  
 public void onClick(View view) {  
 Intent timeIntent = new Intent(MainActivity.this,TimePicker.class);  
 startActivity(timeIntent);  
 }  
 });  
 }  
}

**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">  
  
 <TextView  
 android:id="@+id/exptNo"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="84dp"  
 android:fontFamily="sans-serif-black"  
 android:text="Experiment No. 4"  
 android:textSize="30dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <TextView  
 android:id="@+id/exptTitle"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="172dp"  
 android:fontFamily="sans-serif-medium"  
 android:text="Date and Time Picker"  
 android:textAlignment="center"  
 android:textSize="25dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.497"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <Button  
 android:id="@+id/datePicker"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="132dp"  
 android:text="Date Picker"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/exptTitle" />  
  
 <Button  
 android:id="@+id/timePicker"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="137dp"  
 android:text="Time Picker"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/datePicker" />  
</androidx.constraintlayout.widget.ConstraintLayout>

**DatePicker.java**

package com.example.expt4;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.app.DatePickerDialog;  
import android.app.TimePickerDialog;  
import android.os.Bundle;  
import android.widget.TextView;  
import android.widget.TimePicker;  
  
import java.util.Calendar;  
  
  
public class DatePicker extends AppCompatActivity implements DatePickerDialog.OnDateSetListener{  
  
 int a,b,c;  
 TextView result;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_date\_picker*);  
 Calendar t =Calendar.*getInstance*();  
 a=t.get(Calendar.*YEAR*);  
 b=t.get(Calendar.*MONTH*);  
 c=t.get(Calendar.*DAY\_OF\_MONTH*);  
  
 result=findViewById(R.id.*imports*);  
 DatePickerDialog d= new DatePickerDialog(DatePicker.this,DatePicker.this,a,b,c);  
 d.show();  
 }  
  
 @Override  
 public void onDateSet(android.widget.DatePicker view, int year, int monthOfYear, int dayOfMonth) {  
 showSetDate(year,monthOfYear,dayOfMonth);  
 }  
 public void showSetDate(int year,int month,int day) {  
 result.setText("Year:"+year+" Month:"+month+" Day:"+day);  
 }  
  
}

**activity\_date\_picker.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=".DatePicker">  
  
 <TextView  
 android:id="@+id/dateText"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="132dp"  
 android:fontFamily="sans-serif-black"  
 android:text="Date Picker "  
 android:textSize="20dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <TextView  
 android:id="@+id/textView3"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="You have Selected:-"  
 android:textSize="25dp"  
 app:layout\_constraintBottom\_toTopOf="@+id/imports"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/dateText" />  
  
 <TextView  
 android:id="@+id/imports"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:text="TextView"  
 android:textSize="20dp"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintHorizontal\_bias="0.498"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/dateText"  
 app:layout\_constraintVertical\_bias="0.356" />  
  
</androidx.constraintlayout.widget.ConstraintLayout>

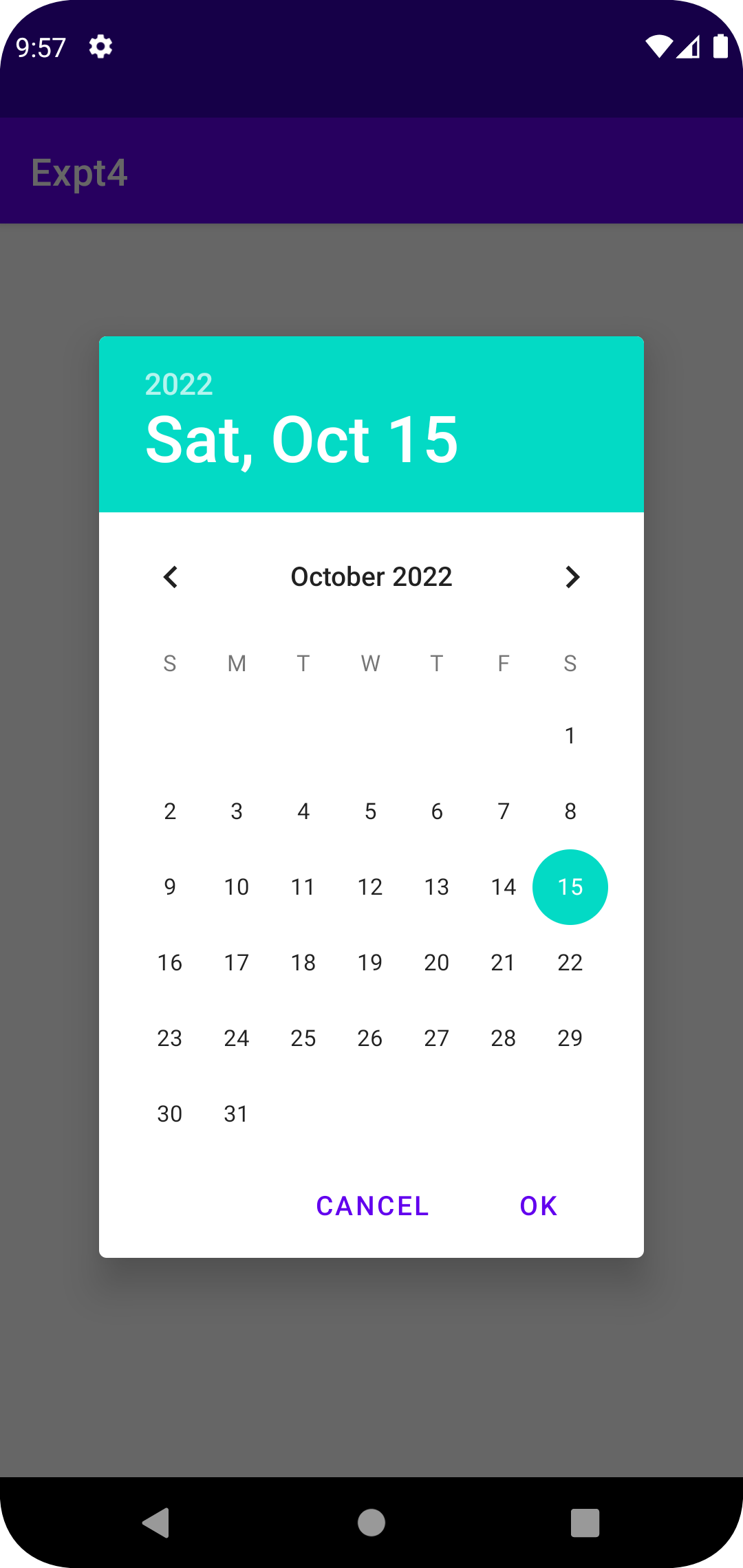
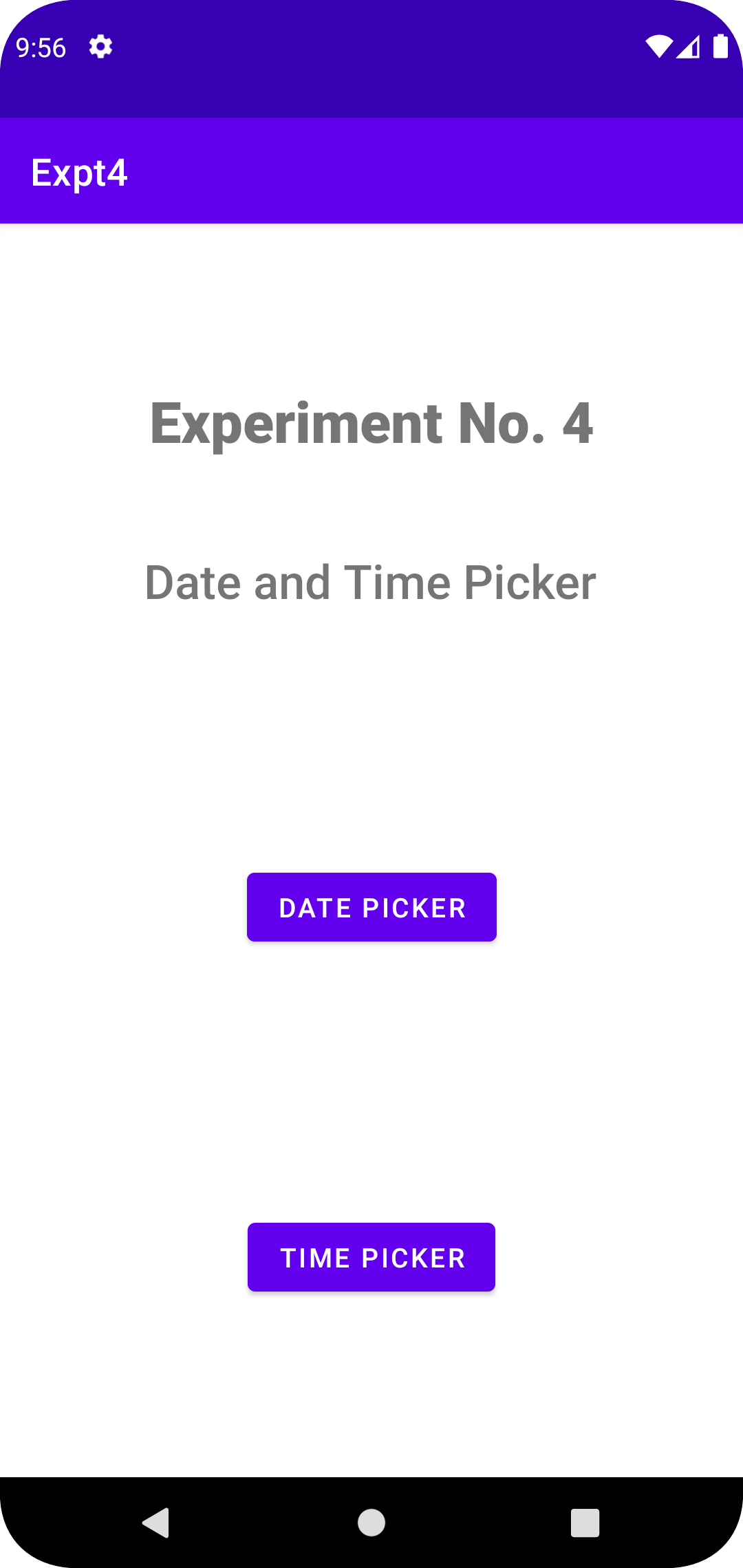
**TimePicker.java**

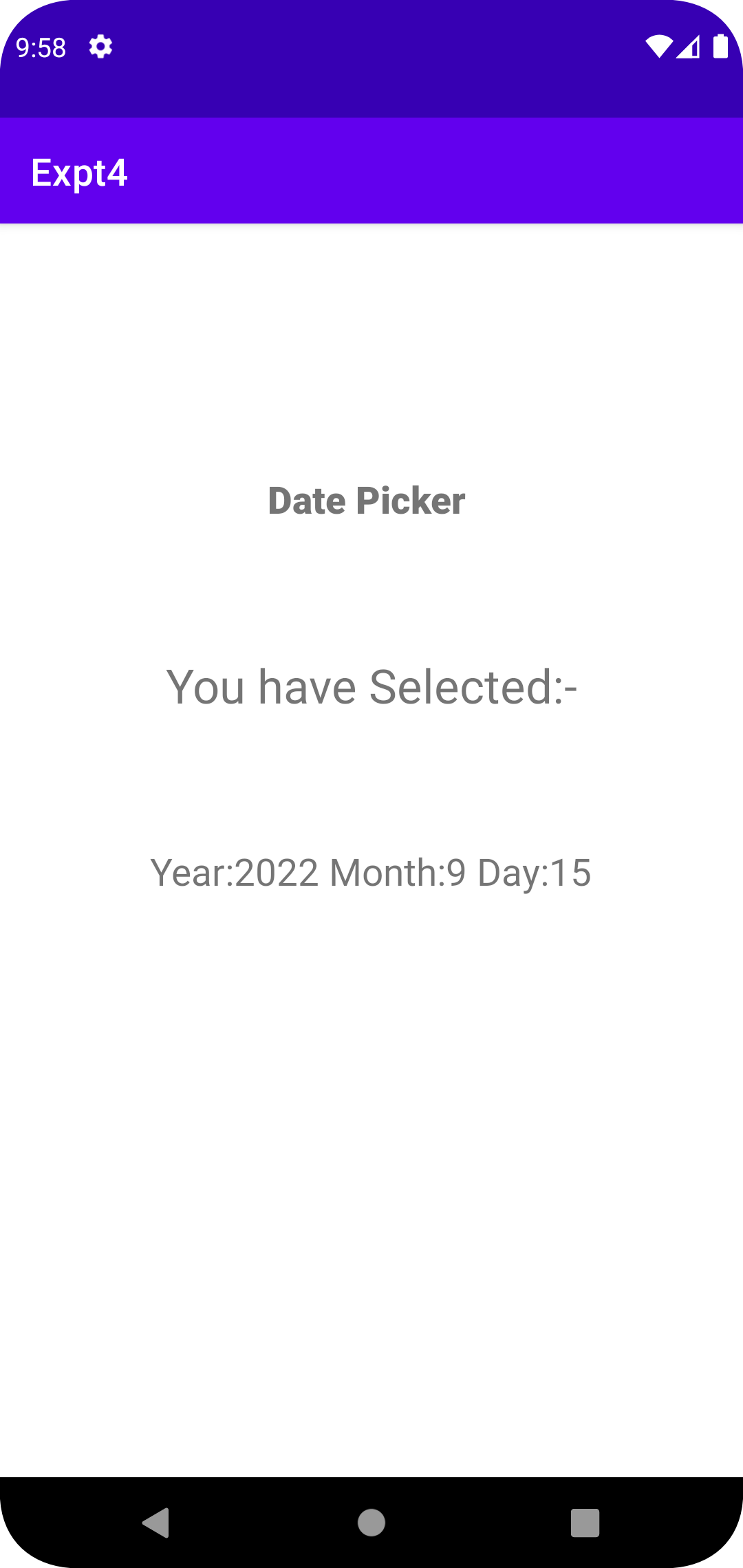
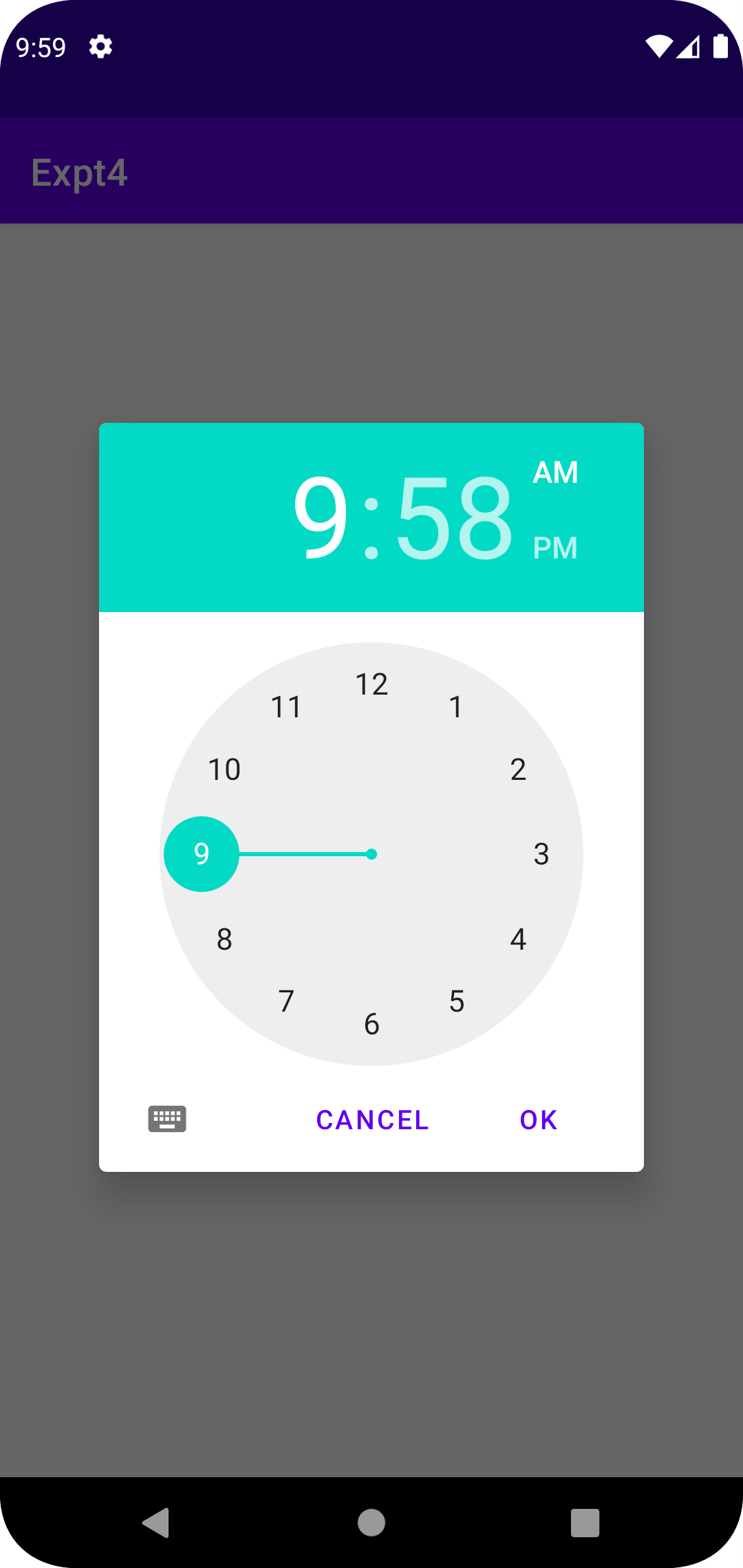
package com.example.expt4;  
  
import androidx.appcompat.app.AppCompatActivity;  
  
import android.app.TimePickerDialog;  
import android.os.Bundle;  
import android.widget.TextView;  
  
import com.google.android.material.timepicker.TimeFormat;  
  
import org.w3c.dom.Text;  
  
import java.sql.Time;  
import java.text.DateFormat;  
import java.util.Calendar;  
import java.text.DateFormat;  
  
public class TimePicker extends AppCompatActivity implements TimePickerDialog.OnTimeSetListener {  
  
 int h,m;  
 TextView result;  
 @Override  
 protected void onCreate(Bundle savedInstanceState) {  
 super.onCreate(savedInstanceState);  
 setContentView(R.layout.*activity\_time\_picker*);  
 Calendar t = Calendar.*getInstance*();  
 h = t.get(Calendar.*HOUR*);  
 m = t.get(Calendar.*MINUTE*);  
  
 result = findViewById(R.id.*importTime*);  
 TimePickerDialog d = new TimePickerDialog(TimePicker.this, this, h, m, android.text.format.DateFormat.*is24HourFormat*(TimePicker.this));  
 d.show();  
 }  
  
 @Override  
 public void onTimeSet(android.widget.TimePicker timePicker, int i, int i1) {  
 showSetTime(i,i1);  
 }  
 public void showSetTime(int hour,int minute) {  
 result.setText("Hour:"+hour+" Minute:"+minute);  
 }  
}

**activity\_time\_picker.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=".TimePicker">  
  
 <TextView  
 android:id="@+id/timeText"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="132dp"  
 android:fontFamily="sans-serif-black"  
 android:text="Time Picker "  
 android:textSize="20dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent" />  
  
 <TextView  
 android:id="@+id/textView2"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="52dp"  
 android:text="You have Selected:-"  
 android:textSize="25dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/timeText" />  
  
 <TextView  
 android:id="@+id/importTime"  
 android:layout\_width="wrap\_content"  
 android:layout\_height="wrap\_content"  
 android:layout\_marginTop="108dp"  
 android:text="TextView"  
 android:textSize="20dp"  
 app:layout\_constraintEnd\_toEndOf="parent"  
 app:layout\_constraintStart\_toStartOf="parent"  
 app:layout\_constraintTop\_toBottomOf="@+id/textView2" />  
</androidx.constraintlayout.widget.ConstraintLayout>

**Output:-**

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