

Instructions: VIT-AP UNIVERSITY, ANDHRA PRADESH

Lab Sheet 6 : Time picker, Date Picker

Academic year: 2021-2022
Semester: Fall
Faculty Name: Dr. K.Rajesh

Branch/ Class: B.Tech
Date: 21-10-2022
School: SCOPE

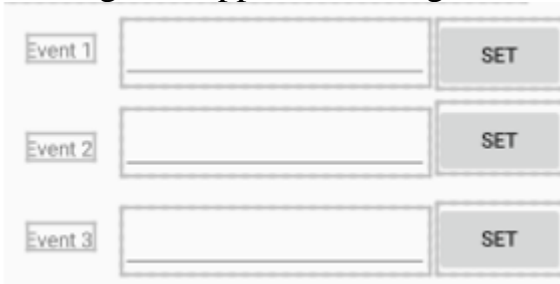
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REGNO:20BCD7171

1. Design an app to schedule three events. Add time picker to the App, choose time and when click set, display the time in the respective event.



2. Design an App for a Dialog based TimePicker.



When ever SET button is clicked a timepicker should pop on choosing the date, it should set the date in the EditText and disappear.

Code:

MainActivity.java:

```
package com.example.timepicker;
import androidx.appcompat.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TimePicker;
public class MainActivity extends AppCompatActivity {
    EditText display1,display2,display3;
    Button timebtn1,timebtn2,timebtn3;
    private int h,m;
    private String date;
    TimePicker tp;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        timebtn1 = findViewById(R.id.timebtn1);
        timebtn2 = findViewById(R.id.timebtn2);
        timebtn3 = findViewById(R.id.timebtn3);
        display1 = findViewById(R.id.display1);
        display2 = findViewById(R.id.display2);
        display3 = findViewById(R.id.display3);
        tp = findViewById(R.id.timepicker);
        tp.setIs24HourView(false);
        tp.setOnTimeChangedListener( new TimePicker.OnTimeChangedListener()
        {
            @Override
            public void onTimeChanged(TimePicker view, int hourOfDay, int
            minute) {
                date = String.valueOf(hourOfDay).toString() + ":" +
                String.valueOf(minute).toString();
            }
        });
        timebtn1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view){
                display1.setText(date+"");
            }
        });
        timebtn2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view){
                display2.setText(date+"");
            }
        });
        timebtn3.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view){
                display3.setText(date+"");
            }
        });
    }
}
```

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">

<TimePicker
    android:id="@+id/timepicker"
    android:layout_width="277dp"
    android:layout_height="364dp"
    android:layout_marginStart="64dp"
    android:layout_marginTop="16dp"
    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_marginStart="40dp"
    android:layout_marginTop="464dp"
    android:fontFamily="sans-serif-black"
    android:text="Event1"
    android:textSize="16sp"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<EditText
    android:id="@+id/display2"
    android:layout_width="143dp"
    android:layout_height="39dp"
    android:layout_marginStart="112dp"
    android:layout_marginTop="516dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<TextView
    android:id="@+id/textView4"
    android:layout_width="wrap_content"
    android:layout_height="wrap_content"
    android:layout_marginStart="40dp"
    android:layout_marginTop="588dp"
    android:fontFamily="sans-serif-black"
    android:text="Event3"
    android:textSize="16sp"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<EditText
    android:id="@+id/display1"
    android:layout_width="143dp"
    android:layout_height="44dp"
    android:layout_marginStart="112dp"
    android:layout_marginTop="452dp"
    android:ems="10"
    android:inputType="textPersonName"
    app:layout_constraintStart_toStartOf="parent"
    app:layout_constraintTop_toTopOf="parent" />

<Button
    android:id="@+id/timebtn1"
    android:layout_width="74dp"
    android:layout_height="51dp"

```

```

        android:layout_marginStart="296dp"
        android:layout_marginTop="432dp"
        android:text="Set"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <Button
        android:id="@+id/timebtn2"
        android:layout_width="74dp"
        android:layout_height="51dp"
        android:layout_marginStart="300dp"
        android:layout_marginTop="520dp"
        android:text="Set"
        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:layout_marginStart="36dp"
        android:layout_marginTop="520dp"
        android:fontFamily="sans-serif-black"
        android:text="Event2"
        android:textSize="16sp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <Button
        android:id="@+id/timebtn3"
        android:layout_width="74dp"
        android:layout_height="51dp"
        android:layout_marginStart="300dp"
        android:layout_marginTop="588dp"
        android:text="Set"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <EditText
        android:id="@+id/display3"
        android:layout_width="145dp"
        android:layout_height="41dp"
        android:layout_marginStart="112dp"
        android:layout_marginTop="588dp"
        android:ems="10"
        android:inputType="textPersonName"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

Gradle:

```

plugins {
    id 'com.android.application'
}

android {
    namespace 'com.example.journaldev.timepicker'
    compileSdk 32

    defaultConfig {
        applicationId "com.example.journaldev.timepicker"
        minSdk 21
        targetSdk 32
        versionCode 1
    }
}

```

```

        versionName "1.0"

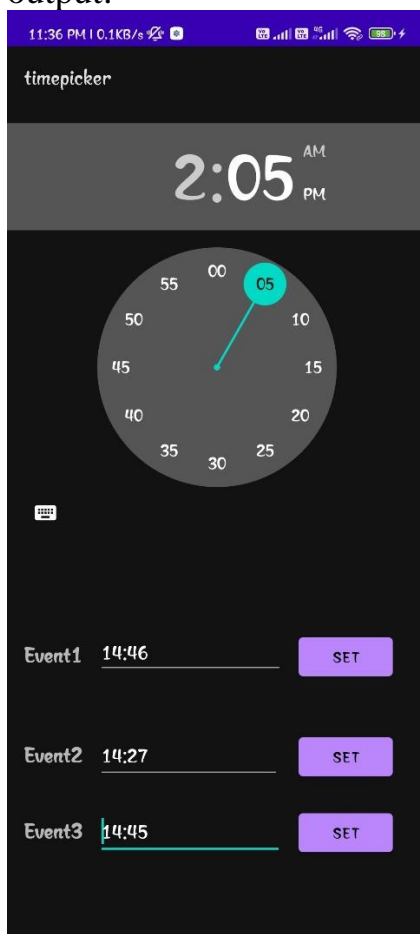
        testInstrumentationRunner "androidx.test.runner.AndroidJUnitRunner"
    }

    buildTypes {
        release {
            minifyEnabled false
            proguardFiles getDefaultProguardFile('proguard-android-optimize.txt'), 'proguard-rules.pro'
        }
    }
    compileOptions {
        sourceCompatibility JavaVersion.VERSION_1_8
        targetCompatibility JavaVersion.VERSION_1_8
    }
}

dependencies {
    implementation 'androidx.appcompat:appcompat:1.5.1'
    implementation 'com.google.android.material:material:1.6.1'
    implementation 'androidx.constraintlayout:constraintlayout:2.1.4'
    implementation 'androidx.leanback:leanback:1.0.0'
    implementation 'com.google.android.material:material:1.3.0-alpha04'
    testImplementation 'junit:junit:4.13.2'
    androidTestImplementation 'androidx.test.ext:junit:1.1.3'
    androidTestImplementation 'androidx.test.espresso:espresso-core:3.4.0'
}

```

output:



2. Similarly set 3 dates.

Code:

MainActivity.java

```
import androidx.appcompat.app.AppCompatActivity;
import android.app.DatePickerDialog;
import android.os.Bundle;
import android.view.View;
import android.widget.Button;
import android.widget.CalendarView;
import android.widget.DatePicker;
import android.widget.EditText;
import java.util.Calendar;
public class MainActivity extends AppCompatActivity {
    Button set1,set2,set3;
    private int year,month,day;
    CalendarView cv;
    String dd,yy,mm;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        set1 = findViewById(R.id.datebtn1);
        set2 = findViewById(R.id.datebtn2);
        set3 = findViewById(R.id.datebtn3);
        EditText display1 = findViewById(R.id.display1);
        EditText display2 = findViewById(R.id.display2);
        EditText display3 = findViewById(R.id.display3);
        cv = findViewById(R.id.calendarView);
        cv.setOnDateChangeListener(new CalendarView.OnDateChangeListener()
        {
            @Override
            public void onSelectedDayChange(CalendarView view, int year,
                                             int month, int dayOfMonth) {
                dd = String.valueOf(dayOfMonth);
                yy = String.valueOf(year);
                mm = String.valueOf(month+1);
            }
        });
        set1.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                display1.setText(dd+"-" + (mm) + "-" + dd );
            }
        });
        set2.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                display2.setText(dd+"-" + (mm) + "-" + yy );
            }
        });
        set3.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View view) {
                display3.setText(dd+"-" + (mm) + "-" + yy );
            }
        });
    }
}
```

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">
    <EditText
        android:id="@+id/display1"
        android:layout_width="157dp"
        android:layout_height="45dp"
        android:layout_marginStart="124dp"
        android:layout_marginTop="404dp"
        android:ems="10"
        android:inputType="textPersonName"
        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_marginStart="40dp"
        android:layout_marginTop="420dp"
        android:fontFamily="sans-serif-black"
        android:text="Event1"
        android:textSize="16sp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <TextView
        android:id="@+id/textView4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_marginStart="40dp"
        android:layout_marginTop="584dp"
        android:fontFamily="sans-serif-black"
        android:text="Event-3"
        android:textSize="16sp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <EditText
        android:id="@+id/display3"
        android:layout_width="157dp"
        android:layout_height="45dp"
        android:layout_marginStart="116dp"
        android:layout_marginTop="584dp"
        android:ems="10"
        android:inputType="textPersonName"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <Button
        android:id="@+id/datebtn1"
        android:layout_width="67dp"
        android:layout_height="45dp"
        android:layout_marginStart="304dp"
        android:layout_marginTop="400dp"
        android:text="Set"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <Button
```

```

        android:id="@+id/datebtn2"
        android:layout_width="67dp"
        android:layout_height="45dp"
        android:layout_marginStart="304dp"
        android:layout_marginTop="492dp"
        android:text="Set"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <EditText
        android:id="@+id/display2"
        android:layout_width="157dp"
        android:layout_height="45dp"
        android:layout_marginStart="124dp"
        android:layout_marginTop="492dp"
        android:ems="10"
        android:inputType="textPersonName"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <Button
        android:id="@+id/datebtn3"
        android:layout_width="67dp"
        android:layout_height="45dp"
        android:layout_marginStart="304dp"
        android:layout_marginTop="584dp"
        android:text="Set"
        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:layout_marginStart="40dp"
        android:layout_marginTop="504dp"
        android:fontFamily="sans-serif-black"
        android:text="Event-2"
        android:textSize="16sp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
    <CalendarView
        android:id="@+id/calendarView"
        android:layout_width="353dp"
        android:layout_height="312dp"
        android:layout_marginStart="40dp"
        android:layout_marginTop="52dp"
        app:layout_constraintStart_toStartOf="parent"
        app:layout_constraintTop_toTopOf="parent" />
</androidx.constraintlayout.widget.ConstraintLayout>

```

Gradle:

```

plugins {
    id 'com.android.application'
}

android {
    namespace 'com.example.journaldev.timepicker'
    compileSdk 32

    defaultConfig {
        applicationId "com.example.journaldev.timepicker"
        minSdk 21
    }
}

```



```

        targetSdk 32
        versionCode 1
        versionName "1.0"

        testInstrumentationRunner "androidx.test.runner.AndroidJUnitRunner"
    }

    buildTypes {
        release {
            minifyEnabled false
            proguardFiles getDefaultProguardFile('proguard-android-
optimize.txt'), 'proguard-rules.pro'
        }
    }
    compileOptions {
        sourceCompatibility JavaVersion.VERSION_1_8
        targetCompatibility JavaVersion.VERSION_1_8
    }
}

dependencies {

    implementation 'androidx.appcompat:appcompat:1.5.1'
    implementation 'com.google.android.material:material:1.6.1'
    implementation 'androidx.constraintlayout:constraintlayout:2.1.4'
    implementation 'androidx.leanback:leanback:1.0.0'
    implementation 'com.google.android.material:material:1.3.0-alpha04'
    testImplementation 'junit:junit:4.13.2'
    androidTestImplementation 'androidx.test.ext:junit:1.1.3'
    androidTestImplementation 'androidx.test.espresso:espresso-core:3.4.0'
}

```

output:

