CSE- 4002 LAB-7 Assignment

Academic year: 2020-2021   **Semester:** WIN

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Time picker App And Time scheduler App

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

activity_main.xml

```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/TP"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="8dp"

        app:layout_constraintStart_toStartOf="parent"
```

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


    <TextView

        android:id="@+id/T1"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginStart="16dp"

        android:layout_marginEnd="51dp"

        android:text="Event1"

        app:layout_constraintBaseline_toBaselineOf="@+id/E1"

        app:layout_constraintEnd_toStartOf="@+id/E1"

        app:layout_constraintStart_toStartOf="parent" />


    <TextView

        android:id="@+id/T2"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginStart="16dp"

        android:layout_marginTop="41dp"

        android:layout_marginEnd="51dp"

        android:text="Event2"

        app:layout_constraintEnd_toStartOf="@+id/E2"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toBottomOf="@+id/T1" />


    <TextView

        android:id="@+id/T3"

        android:layout_width="wrap_content"
```

```xml
        android:layout_height="wrap_content"

        android:layout_marginStart="16dp"

        android:layout_marginTop="31dp"

        android:layout_marginEnd="51dp"

        android:text="Event3"

        app:layout_constraintEnd_toStartOf="@+id/E3"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toBottomOf="@+id/T2" />


    <EditText

        android:id="@+id/E1"

        android:layout_width="0dp"

        android:layout_height="48dp"

        android:layout_marginTop="21dp"

        android:layout_marginEnd="32dp"

        android:layout_marginBottom="15dp"

        android:ems="10"

        android:inputType="time"

        app:layout_constraintBottom_toTopOf="@+id/E2"

        app:layout_constraintEnd_toStartOf="@+id/B1"

        app:layout_constraintStart_toEndOf="@+id/T1"

        app:layout_constraintTop_toBottomOf="@+id/TP"

        tools:ignore="SpeakableTextPresentCheck" />


    <EditText

        android:id="@+id/E2"

        android:layout_width="0dp"

        android:layout_height="48dp"
```

```
        android:layout_marginTop="57dp"

        android:layout_marginEnd="32dp"

        android:layout_marginBottom="55dp"

        android:ems="10"

        android:inputType="time"

        app:layout_constraintBottom_toBottomOf="@+id/E3"

        app:layout_constraintEnd_toStartOf="@+id/B2"

        app:layout_constraintStart_toEndOf="@+id/T2"

        app:layout_constraintTop_toTopOf="@+id/B1"

        tools:ignore="SpeakableTextPresentCheck,SpeakableTextPresentCheck" />


    <EditText

        android:id="@+id/E3"

        android:layout_width="0dp"

        android:layout_height="48dp"

        android:layout_marginTop="7dp"

        android:layout_marginEnd="32dp"

        android:layout_marginBottom="6dp"

        android:ems="10"

        android:inputType="time"

        app:layout_constraintBottom_toBottomOf="@+id/B3"

        app:layout_constraintEnd_toStartOf="@+id/B3"

        app:layout_constraintStart_toEndOf="@+id/T3"

        app:layout_constraintTop_toBottomOf="@+id/B2" />


    <Button

        android:id="@+id/B1"

        android:layout_width="wrap_content"
```

```xml
        android:layout_height="wrap_content"

        android:layout_marginTop="21dp"

        android:layout_marginEnd="22dp"

        android:text="Set"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintStart_toEndOf="@+id/E1"

        app:layout_constraintTop_toBottomOf="@+id/TP" />


    <Button

        android:id="@+id/B2"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="9dp"

        android:layout_marginEnd="22dp"

        android:text="SET"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintStart_toEndOf="@+id/E2"

        app:layout_constraintTop_toBottomOf="@+id/B1" />


    <Button

        android:id="@+id/B3"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginTop="7dp"

        android:layout_marginEnd="22dp"

        android:text="SET"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintStart_toEndOf="@+id/E3"
```

```xml
        app:layout_constraintTop_toBottomOf="@+id/B2" />


    <Button

        android:id="@+id/B4"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginEnd="32dp"

        android:layout_marginBottom="54dp"

        android:text="SUBMIT"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toEndOf="@+id/E3" />

</androidx.constraintlayout.widget.ConstraintLayout>
```

MainActivity.java:

```java
package com.example.timechanger;


import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import android.widget.TimePicker;

import android.widget.Toast;


public class MainActivity extends AppCompatActivity {
```

```java
TextView T1,T2,T3;

TimePicker TP;

EditText E1,E2,E3;

Button B1,B2,B3,B4;

int H,M;

String S;

@Override

protected void onCreate(Bundle savedInstanceState) {

    super.onCreate(savedInstanceState);

    setContentView(R.layout.activity_main);


    T1=findViewById(R.id.T1);

    T2=findViewById(R.id.T2);

    T3=findViewById(R.id.T3);

    TP=findViewById(R.id.TP);

    E1=findViewById(R.id.E1);

    E2=findViewById(R.id.E2);

    E3=findViewById(R.id.E3);

    B1=findViewById(R.id.B1);

    B2=findViewById(R.id.B2);

    B3=findViewById(R.id.B3);

    B4=findViewById(R.id.B4);




    B1.setOnClickListener(new View.OnClickListener() {

        @Override

        public void onClick(View view) {
```

```java
            H=TP.getCurrentHour();

            M=TP.getCurrentMinute();

            S=String.valueOf(H)+":"+String.valueOf(M);

            E1.setText(S);

        }

    });

    B2.setOnClickListener(new View.OnClickListener() {

        @Override

        public void onClick(View view) {

            H=TP.getCurrentHour();

            M=TP.getCurrentMinute();

            S=String.valueOf(H)+":"+String.valueOf(M);

            E2.setText(S);

        }

    });

    B3.setOnClickListener(new View.OnClickListener() {

        @Override

        public void onClick(View view) {

            H=TP.getCurrentHour();

            M=TP.getCurrentMinute();

            S=String.valueOf(H)+":"+String.valueOf(M);

            E3.setText(S);

        }

    });

    B4.setOnClickListener(new View.OnClickListener() {

        @Override

        public void onClick(View view) {
```

```java
if(E1.getText().toString().equals("")||E2.getText().toString().equals("")||E3.getText().toString().equals(""))
        {
                Toast.makeText(getApplicationContext(),"Please Set All events",Toast.LENGTH_LONG).show();
        }
        else
        {
                Toast.makeText(getApplicationContext(),"All Events Was Set",Toast.LENGTH_LONG).show();
        }
    });
    }
}
```
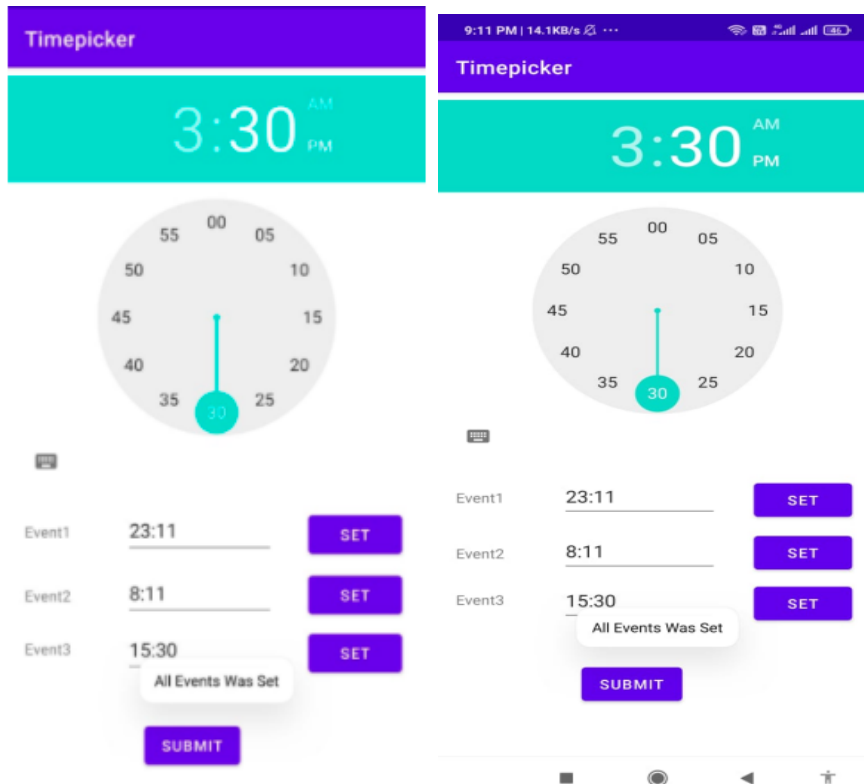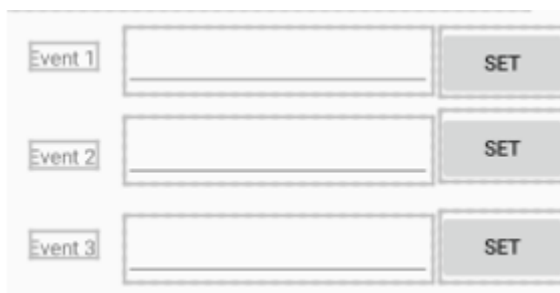
Output:

2. Design an App for a Dialog based TimePicker.

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

activity.xml:

```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/T1"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginStart="17dp"

        android:layout_marginEnd="56dp"

        android:text="Event1"

        app:layout_constraintBottom_toBottomOf="parent"

        app:layout_constraintEnd_toStartOf="@+id/E1"

        app:layout_constraintHorizontal_bias="0.047"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toTopOf="parent"

        app:layout_constraintVertical_bias="0.264" />


    <TextView

        android:id="@+id/T2"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"
```

```xml
        android:layout_marginStart="19dp"

        android:layout_marginEnd="51dp"

        android:text="Event2"

        app:layout_constraintBaseline_toBaselineOf="@+id/E2"

        app:layout_constraintEnd_toStartOf="@+id/E2"

        app:layout_constraintStart_toStartOf="parent" />


    <TextView

        android:id="@+id/T3"

        android:layout_width="wrap_content"

        android:layout_height="wrap_content"

        android:layout_marginStart="19dp"

        android:layout_marginTop="40dp"

        android:layout_marginEnd="51dp"

        android:text="Event3"

        app:layout_constraintEnd_toStartOf="@+id/E3"

        app:layout_constraintStart_toStartOf="parent"

        app:layout_constraintTop_toBottomOf="@+id/T2" />


    <EditText

        android:id="@+id/E1"

        android:layout_width="0dp"

        android:layout_height="49dp"

        android:layout_marginEnd="26dp"

        android:ems="10"

        android:inputType="time"

        app:layout_constraintBottom_toBottomOf="@+id/B1"

        app:layout_constraintEnd_toStartOf="@+id/B1"
```

```
    app:layout_constraintStart_toEndOf="@+id/T1"

    tools:ignore="SpeakableTextPresentCheck" />


<EditText

    android:id="@+id/E2"

    android:layout_width="0dp"

    android:layout_height="49dp"

    android:layout_marginTop="66dp"

    android:layout_marginEnd="29dp"

    android:layout_marginBottom="66dp"

    android:ems="10"

    android:inputType="time"

    app:layout_constraintBottom_toBottomOf="@+id/B3"

    app:layout_constraintEnd_toStartOf="@+id/B2"

    app:layout_constraintStart_toEndOf="@+id/T2"

    app:layout_constraintTop_toTopOf="@+id/E1"

    tools:ignore="SpeakableTextPresentCheck" />


<EditText

    android:id="@+id/E3"

    android:layout_width="0dp"

    android:layout_height="49dp"

    android:layout_marginTop="26dp"

    android:layout_marginEnd="29dp"

    android:ems="10"

    android:inputType="time"

    app:layout_constraintEnd_toStartOf="@+id/B3"

    app:layout_constraintStart_toEndOf="@+id/T3"
```

```
    app:layout_constraintTop_toBottomOf="@+id/B2"

    tools:ignore="SpeakableTextPresentCheck" />


<Button

    android:id="@+id/B1"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_marginTop="175dp"

    android:layout_marginEnd="22dp"

    android:text="SET"

    app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintStart_toEndOf="@+id/E1"

    app:layout_constraintTop_toTopOf="parent" />


<Button

    android:id="@+id/B2"

    android:layout_width="wrap_content"

    android:layout_height="wrap_content"

    android:layout_marginTop="10dp"

    android:layout_marginEnd="22dp"

    android:text="SET"

    app:layout_constraintEnd_toEndOf="parent"

    app:layout_constraintStart_toEndOf="@+id/E2"

    app:layout_constraintTop_toBottomOf="@+id/B1" />


<Button

    android:id="@+id/B3"

    android:layout_width="wrap_content"
```

```xml
        android:layout_height="wrap_content"

        android:layout_marginEnd="22dp"

        android:text="SET"

        app:layout_constraintBaseline_toBaselineOf="@+id/E3"

        app:layout_constraintEnd_toEndOf="parent"

        app:layout_constraintStart_toEndOf="@+id/E3" />



</androidx.constraintlayout.widget.ConstraintLayout>
```

TimeDialog.java:

```java
package com.example.timepopup;

import android.app.Dialog;

import android.app.TimePickerDialog;

import android.os.Bundle;

import android.text.format.Time;

import androidx.annotation.NonNull;

import androidx.annotation.Nullable;

import androidx.fragment.app.DialogFragment;



import java.util.Calendar;



public class TimeDialog extends DialogFragment

{

    @NonNull

    @Override
```

```java
public Dialog onCreateDialog(@Nullable Bundle savedInstanceState) {

    Calendar c=Calendar.getInstance();

    int hours =c.get(Calendar.HOUR_OF_DAY);

    int minutes=c.get(Calendar.MINUTE);

    TimePickerDialog TPD=new
TimePickerDialog(getActivity(),(TimePickerDialog.OnTimeSetListener)getActivity
(),hours,minutes,true);

    return TPD;

}

}
```

MainActivity.java:

```java
package com.example.timepopup;

import androidx.appcompat.app.AppCompatActivity;

import android.app.TimePickerDialog;

import android.os.Bundle;

import android.view.View;

import android.widget.Button;

import android.widget.EditText;

import android.widget.TextView;

import android.widget.TimePicker;

public class MainActivity extends AppCompatActivity implements
TimePickerDialog.OnTimeSetListener {

TextView T1,T2,T3;

EditText E1,E2,E3;

Button B1,B2,B3;

String s;
```

```java
        @Override

    protected void onCreate(Bundle savedInstanceState) {

        super.onCreate(savedInstanceState);

        setContentView(R.layout.activity_main);

        T1=findViewById(R.id.T1);

        T2=findViewById(R.id.T2);

        T3=findViewById(R.id.T3);

        E1=findViewById(R.id.E1);

        E2=findViewById(R.id.E2);

        E3=findViewById(R.id.E3);

        B1=findViewById(R.id.B1);

        B2=findViewById(R.id.B2);

        B3=findViewById(R.id.B3);

        B1.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View view) {

                TimeDialog T=new TimeDialog();

                T.show(getSupportFragmentManager(),"TimePicker");

                s=T.getTag();


            }

        });

        B2.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View view) {


                TimeDialog T=new TimeDialog();

                T.show(getSupportFragmentManager(),"TimePicker1");
```

```java
                s=T.getTag();

            }

        });

        B3.setOnClickListener(new View.OnClickListener() {

            @Override

            public void onClick(View view) {

                TimeDialog T=new TimeDialog();

                T.show(getSupportFragmentManager(),"TimePicker2");

                s=T.getTag();

            }

        });


    }


    @Override

    public void onTimeSet(TimePicker timePicker, int i, int i1) {

        if(s.equals("TimePicker"))

            E1.setText(String.valueOf(i) + ":" + String.valueOf(i1));

        else if(s.equals("TimePicker1"))

        {

            E2.setText(String.valueOf(i) + ":" + String.valueOf(i1));

        }

        else

        {

            E3.setText(String.valueOf(i) + ":" + String.valueOf(i1));

        }

    }

}
```