

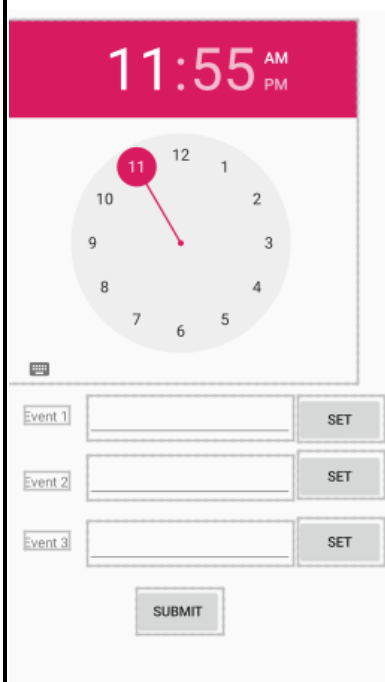
## LAB-7

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**REGNO: 19BCE7360**

### LAB: CSE4002 Mobile Application Development LAB

1. Design an app to schedule three events. Add time picker to the App, choose time and when SET button is clicked, set the time in the respective event Text.



### 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"
        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"
    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"
        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"
    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>

```

## Java:

```

package com.example.lab21;

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 {
    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);
    }
}

```

```

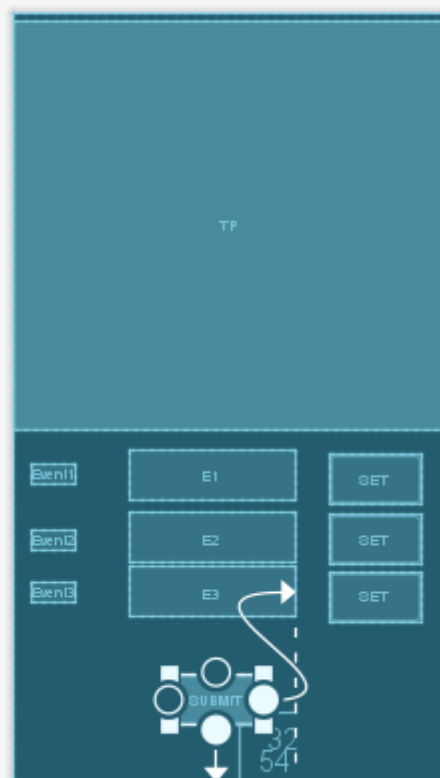
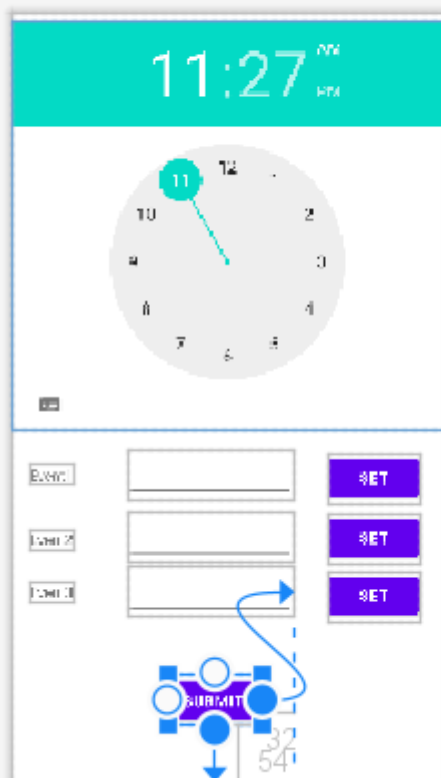
T1=findViewById(R.id.T1);
T2=findViewById(R.id.T2);
T3=findViewById(R.id.T3);
TP=findViewById(R.id.TP);
E1=findViewById(R.id.E1);
E2=findViewById(R.id.E2);
E3=findViewById(R.id.E3);
B1=findViewById(R.id.B1);
B2=findViewById(R.id.B2);
B3=findViewById(R.id.B3);
B4=findViewById(R.id.B4);

B1.setOnClickListener(new View.OnClickListener() {
    @Override
    public void onClick(View view) {
        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) {

if(E1.getText().toString().equals("")||E2.getText().toString().equals("")||E3.getTex
t().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:**



11:25



VoLTE

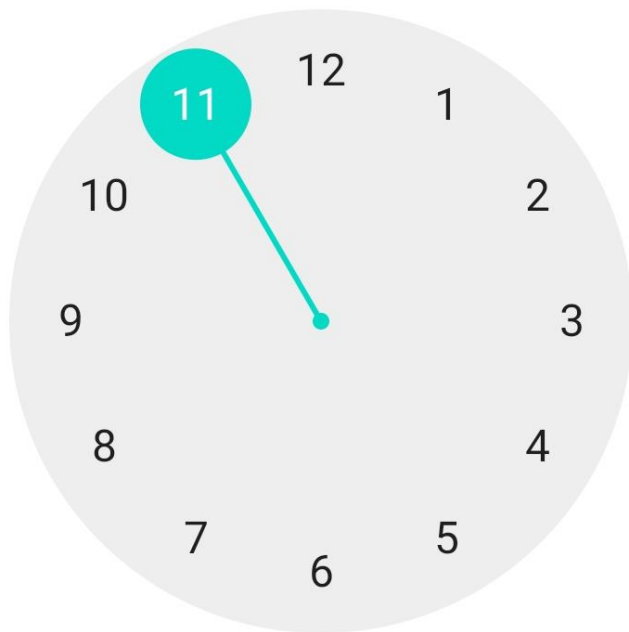


92



lab2.1

11:24<sup>AM</sup>  
PM



Event1

\_\_\_\_\_

SET

Event2

\_\_\_\_\_

SET

Event3

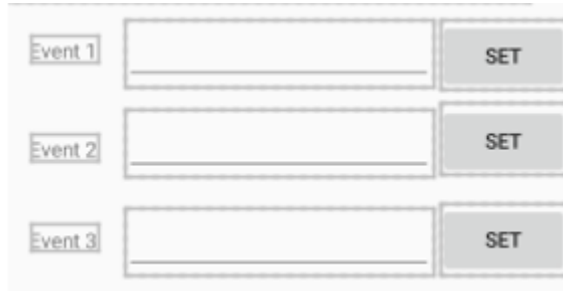
SUBMIT

\_\_\_\_\_

SET



## 2. Design an App for a Dialog based TimePicker.



Whenever SET button is clicked a TimePicker should popup. Choose the time and set the Time in the EditText and once selected the picker should disappear.

### 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"
        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"
    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>
```



## Java:

### TimeDialog.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
    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(),hou
rs,minutes,true);
        return TPD;
    }
}
```

### MainActivity.java:

```
package com.example.lab21;

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;

import com.example.MainActivity2.TimeDialog;

public class MainActivity extends AppCompatActivity implements
TimePickerDialog.OnTimeSetListener {
    TextView T1,T2,T3;
    EditText E1,E2,E3;
    Button B1,B2,B3;
    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);
        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");
        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 il) {
    if(s.equals("TimePicker"))

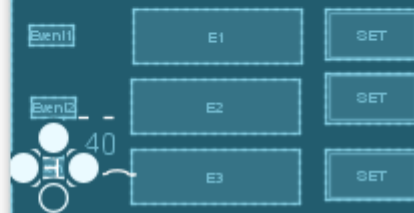
        E1.setText(String.valueOf(i) + ":" + String.valueOf(il));

    else if(s.equals("TimePicker1"))
    {
        E2.setText(String.valueOf(i) + ":" + String.valueOf(il));
    }
    else
    {
        E3.setText(String.valueOf(i) + ":" + String.valueOf(il));
    }

}
}

```

**Output:**



## TimePOPUp

Event1	3:16	SET
Event2	19:35	SET
Event3	13:16	SET