# UCS1711 - Mobile Application development lab

## Ex1

### Code

#### MainActivity.java

package com.example.trial1;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.view.View;

import android.view.View.OnClickListener;

import android.widget.Button;

import android.widget.CalendarView;

import android.widget.DatePicker;

import android.widget.EditText;

import android.widget.TextView;

import android.widget.Toast;

import java.text.SimpleDateFormat;

import java.util.Calendar;

import java.util.Date;

public class MainActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

Button submit;

submit=findViewById(R.id.submit);

((DatePicker) findViewById(R.id.datePicker)).init(1,1,1, (a,b,c,d) -> {

DatePicker datePicker = findViewById(R.id.datePicker);

int day = datePicker.getDayOfMonth();

int month = datePicker.getMonth();

int year = datePicker.getYear();

Calendar calendar = Calendar.getInstance();

calendar.set(year, month, day);

((TextView) findViewById(R.id.dob)).setText(calendar.getTime().toString());

});

// ((ker) findViewById(R.id.)).setOnDateChangedListener();

submit.setOnClickListener(new View.OnClickListener(){

public void onClick(View view){

EditText name;

name=findViewById(R.id.name);

//Toast.makeText(MainActivity.this,name.getText().toString(), Toast.LENGTH\_LONG).show();

Intent intent = new Intent(MainActivity.this,SecondActivity.class);

EditText dateob = ((EditText) findViewById(R.id.dob));

String dateString = dateob.getText().toString();

String actualString = "";

actualString += dateString.charAt(30) + dateString.charAt(31) + dateString.charAt(32) + dateString.charAt(33);

intent.putExtra("dob",dateString);

int dobyear = Integer.parseInt(actualString);

int curryear = 2023;

if(curryear - dobyear > 18)

intent.putExtra("NameField",name.getText().toString() + " (Eligible) ");

else

intent.putExtra("NameField",name.getText().toString() + " (Ineligible) ");

startActivity(intent);

}

});

}

}

#### SecondActivity.java

package com.example.trial1;

import androidx.appcompat.app.AppCompatActivity;

import android.content.Intent;

import android.os.Bundle;

import android.widget.TextView;

import android.widget.Toast;

public class SecondActivity extends AppCompatActivity {

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_second);

Intent intent = getIntent();

String NameField=intent.getStringExtra("NameField");

String dob = intent.getStringExtra("dob");

((TextView) findViewById(R.id.result)).setText(NameField + " was born in " + dob);

}

}

#### 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/textView"

android:layout\_width="50dp"

android:layout\_height="22dp"

android:text="Name:"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintHorizontal\_bias="0.168"

app:layout\_constraintLeft\_toLeftOf="parent"

app:layout\_constraintRight\_toRightOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.081" />

<Button

android:id="@+id/submit"

android:layout\_width="58dp"

android:layout\_height="86dp"

android:text="Submit"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.954"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.099" />

<EditText

android:id="@+id/name"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:inputType="textPersonName"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.606"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.051" />

<TextView

android:id="@+id/textView3"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="28dp"

android:text="DOB:"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.21"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.115" />

<TextView

android:id="@+id/textView2"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:layout\_marginTop="28dp"

android:text="Address:"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.154"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.194" />

<EditText

android:id="@+id/dob"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:inputType="date"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.606"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.135" />

<EditText

android:id="@+id/addr"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:ems="10"

android:inputType="date"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.606"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.218" />

<DatePicker

android:id="@+id/datePicker"

android:layout\_width="310dp"

android:layout\_height="389dp"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.435"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.613" />

</androidx.constraintlayout.widget.ConstraintLayout>

#### Activity\_second.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=".SecondActivity">

<TextView

android:id="@+id/result"

android:layout\_width="148dp"

android:layout\_height="88dp"

android:text="SUCCESS!!!"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.498"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.485" />

</androidx.constraintlayout.widget.ConstraintLayout>

### Output

## Ex2

### Code

#### MainActivity.java

package com.example.circle;

import androidx.appcompat.app.AppCompatActivity;

import android.os.Bundle;

import android.widget.Button;

import android.widget.ImageView;

public class MainActivity extends AppCompatActivity {

float xScale = 1, yScale = 1;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

ImageView round = findViewById(R.id.imageViewCircle);

Button zoomIn = findViewById(R.id.zoomin);

zoomIn.setOnClickListener(v -> {

round.setScaleX(2.0f);

round.setScaleY(2.0f);

});

Button zoomOut = findViewById(R.id.zoomout);

zoomOut.setOnClickListener(v -> {

round.setScaleX(1.0f);

round.setScaleY(1.0f);

});

}

}

#### 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">

<Button

android:id="@+id/zoomout"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="zoomout"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.668"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.499" />

<Button

android:id="@+id/zoomin"

android:layout\_width="wrap\_content"

android:layout\_height="wrap\_content"

android:text="zoomin"

app:layout\_constraintBottom\_toBottomOf="parent"

app:layout\_constraintEnd\_toEndOf="parent"

app:layout\_constraintHorizontal\_bias="0.229"

app:layout\_constraintStart\_toStartOf="parent"

app:layout\_constraintTop\_toTopOf="parent"

app:layout\_constraintVertical\_bias="0.499" />

<ImageView

android:id="@+id/imageViewCircle"

android:layout\_width="141dp"

android:layout\_height="152dp"

android:src="@drawable/circle"

tools:layout\_editor\_absoluteX="136dp"

tools:layout\_editor\_absoluteY="149dp" />

</androidx.constraintlayout.widget.ConstraintLayout>

#### Circle.xml

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

<selector xmlns:android="http://schemas.android.com/apk/res/android">

<item android:top="100dp"

android:bottom="100dp"

android:left="100dp"

android:right="100dp"

>

<solid

android:color="#000000"

/>

<shape

android:shape="oval">

<size

android:width="120dp"

android:height="120dp"

/>

</shape>

</item>

</selector>

### Output

