

ITMD 455/555 – HW5

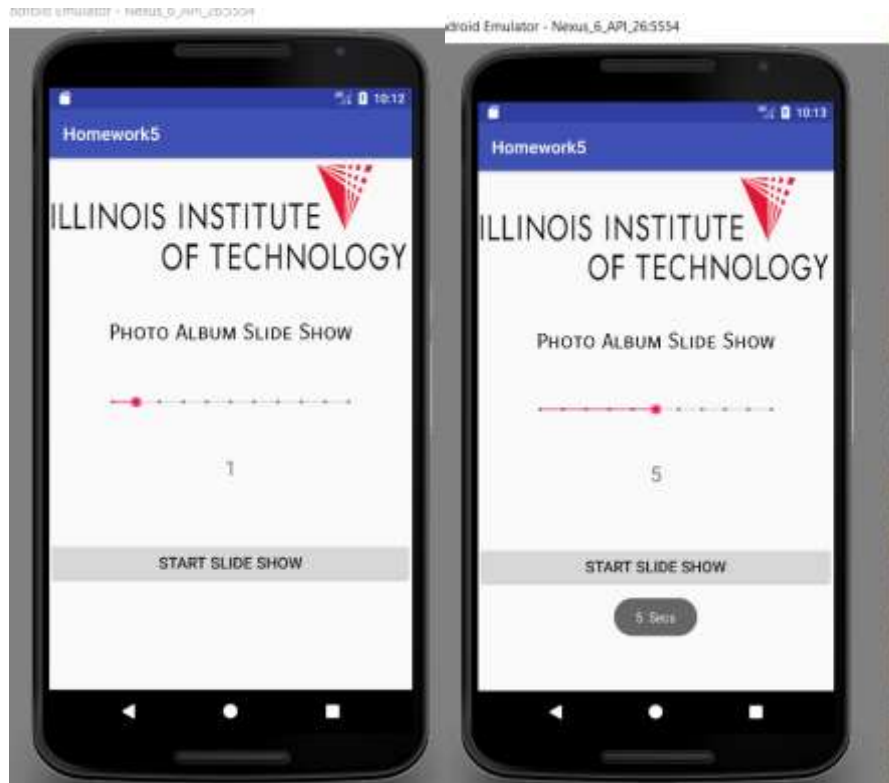
Due: Oct 9 2017

Please send all XML files, Java code, and screenshots in one PDF file to: phuang9@iit.edu

Please create an Android app that has two UIs (i.e. two Activities). The first UI/Activity should look the following screen shots. The SeekBar is used to set a timer. The timer controls how long each picture will be displayed on the second UI/Activity. The Button is used to launch the second UI/Activity.

The second UI/Activity should look the following screen shot. It should display pictures (at least 10) in a slide show fashion. After the last picture is displayed, it should go back to display the first picture. The length of time each picture is displayed should be based on the timer set by the SeekBar on the First UI/Activity. E.g. 5 seconds in my case. But the user should be go back to change the timer to go faster or slower.

Solution:



Android Emulator - Nexus_6_API_26.5554



droid Emulator - Nexus_6_API_26.5554



On pressing back button

Android Emulator - Nexus_6_API_26:5554



Activity_Main.xml

```
<?xml version="1.0" encoding="utf-8"?>
<LinearLayout 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"
    android:orientation="vertical"
    tools:context="com.example.vasugupta.homework5.MainActivity"
    tools:layout_editor_absoluteX="0dp"
    tools:layout_editor_absoluteY="81dp"
    android:weightSum="1">

    <ImageView
        android:id="@+id/imageView"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:scaleType="fitXY"
        app:srcCompat="@drawable/illinoistech"
        tools:layout_editor_absoluteX="0dp"
        tools:layout_editor_absoluteY="-4dp"
        android:paddingBottom="50dp"
    />

    <TextView
        android:id="@+id/textView"
        android:layout_width="match_parent"
        android:layout_height="35dp"
        android:fontFamily="sans-serif-smallcaps"
        android:text="@string/intro"
        android:textAlignment="center"
        android:textColor="@android:color/black"
        android:textSize="24sp"
        tools:layout_editor_absoluteX="37dp"
        tools:layout_editor_absoluteY="201dp" />

    <SeekBar
        android:id="@+id/skbar"
        style="@style/Widget.AppCompat.SeekBar.Discrete"
        android:layout_width="300dp"
        android:layout_height="44dp"
        android:layout_gravity="center_horizontal"
        android:layout_weight="0.28"
        android:max="10"
        android:progress="0"
        tools:layout_editor_absoluteX="33dp"
        tools:layout_editor_absoluteY="252dp" />

    <TextView
        android:id="@+id/slidesec"
        android:layout_width="101dp"
        android:layout_height="wrap_content"
        android:layout_gravity="center_horizontal"
        android:layout_weight="0.26"
        android:textAlignment="center"
        android:textSize="24sp"
        tools:layout_editor_absoluteX="163dp"
        tools:layout_editor_absoluteY="350dp" />
```

```

        <Button
            android:id="@+id/startb"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:text="@string/start"
            android:textSize="18sp"
            tools:layout_editor_absoluteX="148dp"
            tools:layout_editor_absoluteY="401dp" />
    </LinearLayout>

```

MainActivity.java

```

package com.example.vasugupta.homework5;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
import android.view.View;
import android.widget.Button;
import android.widget.SeekBar;
import android.widget.TextView;
import android.widget.Toast;

import static android.R.attr.progress;
import static android.R.attr.settingsActivity;
import static android.icu.lang.UCharacter.GraphemeClusterBreak.V;
import static java.lang.String.*;

public class MainActivity extends AppCompatActivity {
    TextView seekval;
    SeekBar seekBar;
    Button strbtn;
    int progressValue;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);
        seekBar = (SeekBar) findViewById(R.id.skbar);
        seekval = (TextView) findViewById(R.id.slideseq);
        strbtn = (Button) findViewById(R.id.startb);
        Seekbarprogress();
    }

    public void Seekbarprogress() {
        seekBar.setOnSeekBarChangeListener(new SeekBar.OnSeekBarChangeListener() {
            @Override
            public void onProgressChanged(SeekBar S1, int progress, boolean
fromUser) {
                seekval.setText(valueOf(progress));
                progressValue = progress;
            }
            @Override
            public void onStartTrackingTouch(SeekBar S1) {}
            @Override
            public void onStopTrackingTouch(SeekBar S1) {
                Toast.makeText(getApplicationContext(), seekBar.getProgress() + "
Secs", Toast.LENGTH_SHORT).show();
                addListeneronbutton();
            }
        });
        addListeneronbutton();
    }

```

```

        strbtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent intent = new Intent(getApplicationContext(),
                    Main2Activity.class);
                intent.putExtra("vasu", String.valueOf(progressValue));
                startActivity(intent);
            }
        });
    }
}

```

Activity_main2.xml

```

<?xml version="1.0" encoding="utf-8"?>
<RelativeLayout 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="com.example.vasugupta.homework5.Main2Activity">

    <TextView
        android:id="@+id/name"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="51dp"
        android:textColor="@android:color/black"
        android:textSize="30sp" />

    <TextView
        android:id="@+id/desc"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_alignParentStart="true"
        android:layout_below="@+id/name"
        android:layout_marginTop="82dp"
        android:textAlignment="center"
        android:textColor="@android:color/black"
        android:textSize="18sp" />

    <ImageView
        android:id="@+id/cityimg"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentBottom="true"
        android:layout_centerHorizontal="true"
        android:layout_marginBottom="49dp"
        app:srcCompat="@drawable/banglore" />
</RelativeLayout>

```

Main2Activity.java

```

package com.example.vasugupta.homework5;

import android.app.Activity;
import android.os.CountDownTimer;
import android.os.Handler;
import android.os.Bundle;

```

```

import android.widget.ImageView;
import android.widget.TextView;
import android.widget.Toast;

public class Main2Activity extends Activity {
    ImageView cityimage;
    int iterator =0;
    TextView name;

    TextView descrip;
    String[] citynames = {"Bangalore", "Beijing", "Chicago", "London",
        "New York", "Paris", "San Francisco", "Seoul",
        "Shanghai", "Tokyo", "Toronto", "Vancouver"};
    Integer[] imageid = {R.drawable.banglore, R.drawable.beijing,
R.drawable.chicago,
        R.drawable.london, R.drawable.newyork, R.drawable.paris,
        R.drawable.sanfrancisco, R.drawable.seoul,
        R.drawable.shangai, R.drawable.tokyo, R.drawable.toronto,
        R.drawable.vancouver};
    String[] description = {"Bengaluru (also called Bangalore) is the capital of
India's southern Karnataka state." +
        "The center of India's high-tech industry, the city is also known for
its parks and nightlife. "
        , "Beijing, China's massive capital, has history stretching back 3
millennia. "
        , "Chicago, on Lake Michigan in Illinois, is among the largest cities
in the U.S. Famed for its bold architecture," +
        " it has a skyline punctuated by skyscrapers"
        , "London, the capital of England and the United Kingdom, is a 21st-
century city with history stretching back to Roman times."
        , "New York City comprises 5 boroughs sitting where the Hudson River
meets the Atlantic Ocean. "
        , "Paris, France's capital, is a major European city and a global
center for art, fashion," +
        " gastronomy and culture. Its 19th-century cityscape is crisscrossed
by wide boulevards and the River Seine"
        , "San Francisco, in northern California, is a hilly city on the tip
of a peninsula surrounded by the Pacific Ocean and San Francisco Bay."
        , "Seoul, the capital of South Korea, is a huge metropolis where
modern skyscrapers, " +
        "high-tech subways and pop culture meet Buddhist temples, palaces and
street markets."
        , "Shanghai, on China's central coast, is the country's biggest city
and a global financial hub."
        , "Tokyo, Japan's busy capital, mixes the ultramodern and the
traditional, from neon-lit skyscrapers to historic temples."
        , "Toronto, the capital of the province of Ontario, is a major
Canadian city along Lake Ontario's northwestern shore."
        , "Vancouver, a bustling west coast seaport in British Columbia, is
among Canada's densest, most ethnically diverse cities." +
        "A popular filming location, it's surrounded by mountains, and also
has thriving art, theatre and music scenes."
    }
    ;
    private final Handler myHandler = new Handler();
    int val;
    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);

```

```

        setContentView(R.layout.activity_main2);
        Bundle b = getIntent().getExtras();
        String Text = b.getString("vasu");
        val = Integer.valueOf(Text);
        cityimage = findViewById(R.id.cityimg);
        name = findViewById(R.id.name);
        descrip = findViewById(R.id.desc);
        myHandler.postDelayed(myRunnable, val*1000);
    }

    public Runnable myRunnable = new Runnable() {
        public void run() {

            if(iterator < imageid.length)
            {
                // task to be run based a timer
                cityimage.setImageResource(imageid[iterator]);
                descrip.setText(description[iterator]);
                name.setText(citynames[iterator]);
                iterator++;
                showToast();
            }

            if (iterator == imageid.length)
            {
                iterator = 0;
            }
            myHandler.postDelayed(this, val*1000);
        }
    };

    public void showToast() {
        final Toast mToastToShow;
        // Set the toast and duration
        int toastDurationInMilliseconds = val*1000;
        mToastToShow = Toast.makeText(this, "Index --> " +
String.valueOf(iterator) , Toast.LENGTH_SHORT);

        // Set the countdown to display the toast
        CountdownTimer toastCountDown;
        toastCountDown = new CountdownTimer(toastDurationInMilliseconds, 1000
/*Tick duration*/) {
            public void onTick(long millisUntilFinished) {
                mToastToShow.show();
            }
            public void onFinish() {
                mToastToShow.cancel();
            }
        };

        // Show the toast and starts the countdown
        mToastToShow.show();
        toastCountDown.start();
    }

    @Override
    public void onBackPressed()
    {myHandler.removeCallbacks(myRunnable);
        super.onBackPressed();}
    @Override

```



```

protected void onResume ()
{super.onResume();}
@Override
protected void onPause()
{ myHandler.removeCallbacks(myRunnable);
  super.onPause();}
@Override
protected void onStop()
{super.onStop();}
@Override
protected void onDestroy()
{super.onDestroy();}
}

```

Directory Screenshot

