ITMD455

Homework 3

Dennis Chase

Screenshots:
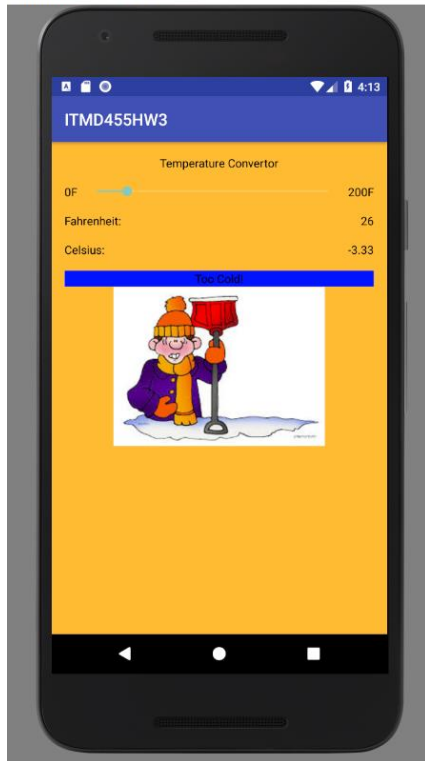
ITMD455HW3

Temperature Convertor

0F —————————————————— 200F

Fahrenheit: 26

Celsius: -3.33

Too Cold!

ITMD455HW3

Temperature Convertor

0F —————————————————— 200F

Fahrenheit: 26

Celsius: -3.33

Too Cold!

ITMD455HW3

Temperature Convertor

0F —————————————————— 200F

Fahrenheit: 64

Celsius: 17.78

Just Right!

ITMD455HW3

Temperature Convertor

0F —————————————————— 200F

Fahrenheit: 64

Celsius: 17.78

Just Right!
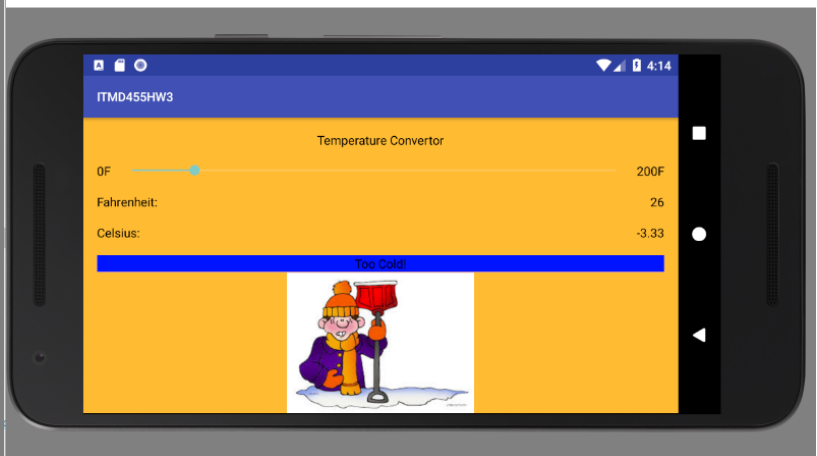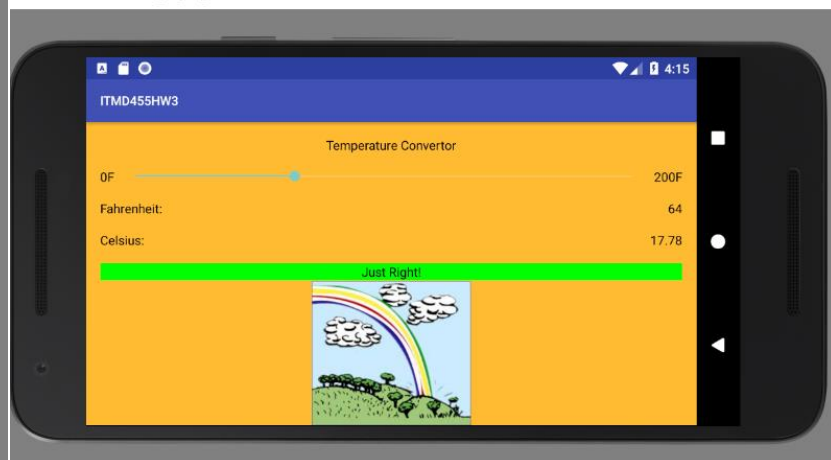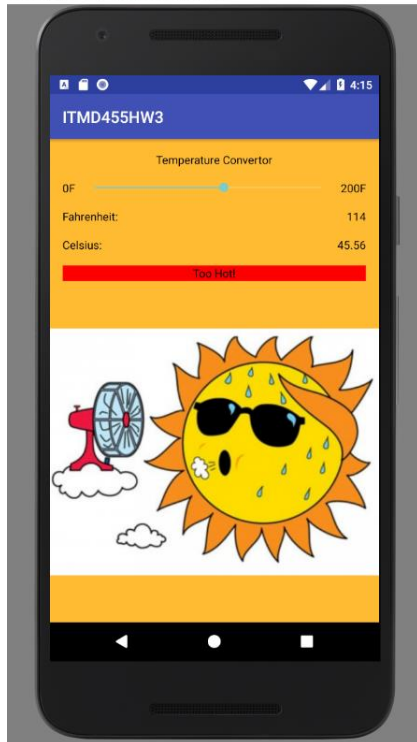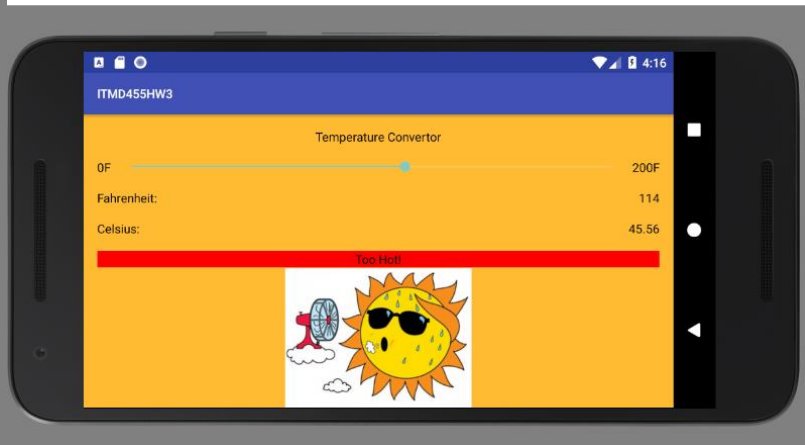
XML Code:

```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"
    android:background="@android:color/holo_orange_light"
    android:theme="@style/Theme.AppCompat.NoActionBar"
    tools:context="com.example.densi.itmd455hw3.MainActivity">


    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_marginTop="16dp"
        android:layout_marginBottom="16dp"
        android:layout_centerHorizontal="true"
        android:textColor="#000000"
        android:text="Temperature Convertor" />

    <SeekBar
        android:id="@+id/seekBar"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/textView2"
        android:layout_toEndOf="@id/textView3"
        android:layout_toStartOf="@id/textView4"
        android:layout_marginLeft="8dp"
        android:layout_marginRight="8dp"
        android:layout_centerHorizontal="true" />

    <TextView
        android:id="@+id/textView3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentStart="true"
        android:layout_below="@+id/textView2"
        android:layout_marginLeft="16dp"
        android:textColor="#000000"
        android:text="0F" />

    <TextView
        android:id="@+id/textView4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentEnd="true"
        android:layout_below="@+id/textView2"
        android:layout_marginRight="16dp"
        android:textColor="#000000"
        android:text="200F" />

    <TextView
        android:id="@+id/textView5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignStart="@+id/textView3"
        android:layout_below="@+id/textView3"
        android:layout_marginTop="16dp"
        android:textColor="#000000"
```

```xml
        android:text="Fahrenheit:" />

    <TextView
        android:id="@+id/textView6"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignStart="@+id/textView5"
        android:layout_below="@+id/textView5"
        android:layout_marginTop="16dp"
        android:textColor="#000000"
        android:text="Celsius:" />

    <TextView
        android:id="@+id/fahTemp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignEnd="@+id/textView4"
        android:layout_alignTop="@+id/textView5"
        android:textColor="#000000"
        android:text="" />

    <TextView
        android:id="@+id/celTemp"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignEnd="@+id/fahTemp"
        android:layout_alignTop="@+id/textView6"
        android:textColor="#000000"
        android:text="" />

    <TextView
        android:id="@+id/tooCold"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/textView6"
        android:layout_margin="16dp"
        android:gravity="center"
        android:textColor="#000000"
        android:background="#0011ff"
        android:visibility="invisible"
        android:text="Too Cold!" />

    <TextView
        android:id="@+id/tooHot"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/textView6"
        android:layout_margin="16dp"
        android:gravity="center"
        android:textColor="#000000"
        android:background="#ff0000"
        android:visibility="invisible"
        android:text="Too Hot!" />

    <TextView
        android:id="@+id/justRight"
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:layout_below="@+id/textView6"
        android:layout_margin="16dp"
        android:gravity="center"
        android:textColor="#000000"
        android:background="#04ff00"
```

```xml
            android:visibility="invisible"
            android:text="Just Right!" />

    <ImageView
            android:id="@+id/imageCold"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_alignTop="@+id/tooCold"
            android:layout_centerHorizontal="true"
            android:layout_marginTop="20dp"
            android:visibility="invisible"
            android:src="@drawable/cold3" />



    <ImageView
            android:id="@+id/imageHot"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_alignTop="@+id/tooCold"
            android:layout_centerHorizontal="true"
            android:layout_marginTop="20dp"
            android:visibility="invisible"
            android:src="@drawable/hot" />


    <ImageView
            android:id="@+id/imageRight"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_alignTop="@+id/tooCold"
            android:layout_centerHorizontal="true"
            android:layout_marginTop="20dp"
            android:visibility="invisible"
            android:src="@drawable/justright" />

</RelativeLayout>
```

Java Code:

```java
package com.example.densi.itmd455hw3;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.View;
import android.widget.ImageView;
import android.widget.TextView;
import android.widget.SeekBar;

import org.w3c.dom.Text;

import java.text.DecimalFormat;

public class MainActivity extends AppCompatActivity {

    TextView celsius, fahrenheit, tcold, tright, thot;
    ImageView icold, iright, ihot;
    SeekBar seek;
    double fah, cel;
    DecimalFormat df = new DecimalFormat("#.##");

    @Override
```

```java
protected void onCreate(Bundle savedInstanceState) {
    super.onCreate(savedInstanceState);
    setContentView(R.layout.activity_main);

    celsius = (TextView) findViewById(R.id.celTemp);
    fahrenheit = (TextView) findViewById(R.id.fahTemp);
    tcold = (TextView) findViewById(R.id.tooCold);
    tright = (TextView) findViewById(R.id.justRight);
    thot = (TextView) findViewById(R.id.tooHot);

    icold = (ImageView) findViewById(R.id.imageCold);
    iright = (ImageView) findViewById(R.id.imageRight);
    ihot = (ImageView) findViewById(R.id.imageHot);

    seek = (SeekBar) findViewById(R.id.seekBar);
    seek.setMax(200);
    seek.setProgress(100);

    seek.setOnSeekBarChangeListener(new SeekBar.OnSeekBarChangeListener() {
        @Override
        public void onProgressChanged(SeekBar seekBar, int i, boolean b) {
            fah = i;
            cel = (5.0/9.0)*(fah-32);
            celsius.setText(df.format(cel));
            fahrenheit.setText(df.format(fah));

            if(fah<=40)
            {
                tcold.setVisibility(View.VISIBLE);
                tright.setVisibility(View.INVISIBLE);
                thot.setVisibility(View.INVISIBLE);
                icold.setVisibility(View.VISIBLE);
                iright.setVisibility(View.INVISIBLE);
                ihot.setVisibility(View.INVISIBLE);
            }
            else if((fah>40)&&(fah<90))
            {
                tcold.setVisibility(View.INVISIBLE);
                tright.setVisibility(View.VISIBLE);
                thot.setVisibility(View.INVISIBLE);
                icold.setVisibility(View.INVISIBLE);
                iright.setVisibility(View.VISIBLE);
                ihot.setVisibility(View.INVISIBLE);
            }
            else
            {
                tcold.setVisibility(View.INVISIBLE);
                tright.setVisibility(View.INVISIBLE);
                thot.setVisibility(View.VISIBLE);
                icold.setVisibility(View.INVISIBLE);
                iright.setVisibility(View.INVISIBLE);
                ihot.setVisibility(View.VISIBLE);
            }
        }

        @Override
        public void onStartTrackingTouch(SeekBar seekBar) {

        }

        @Override
        public void onStopTrackingTouch(SeekBar seekBar) {
```

```
                }
            });
        }
    }
```