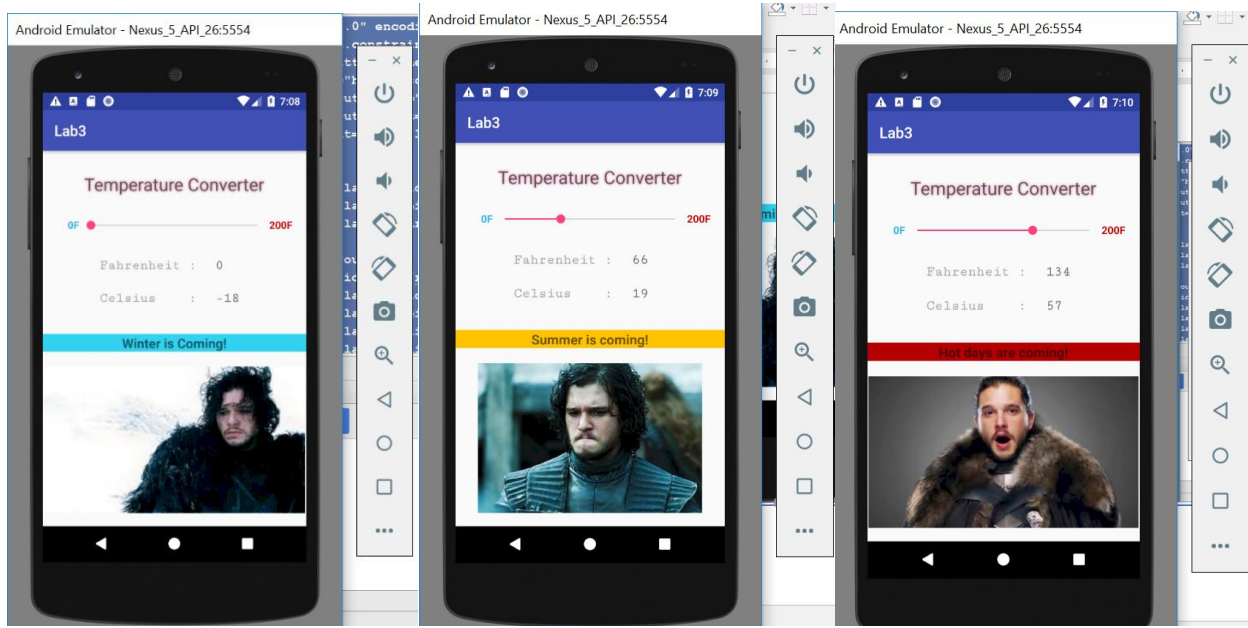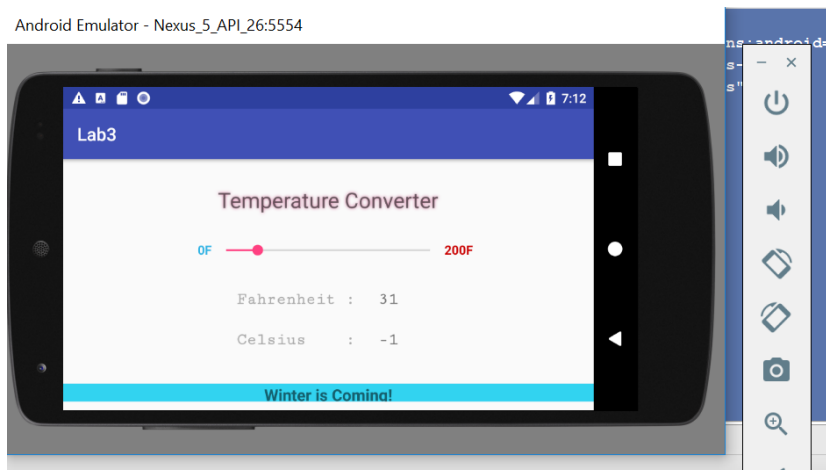*Bhavinkumar Patel - A20410380*

ITMD555-Lab3
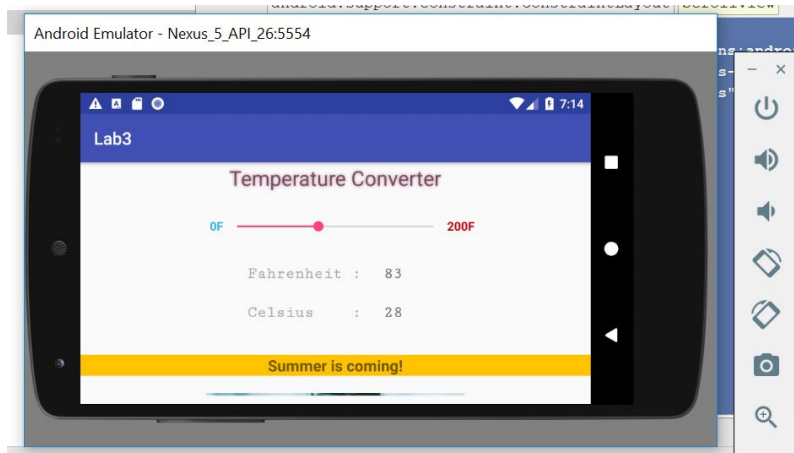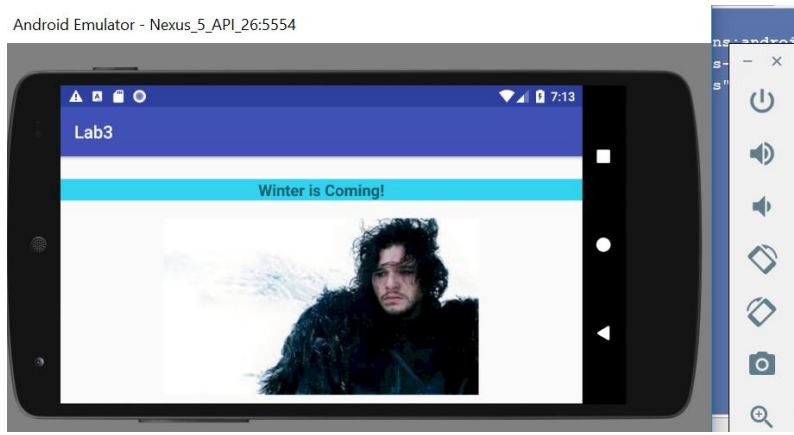
SCREENSHOTS

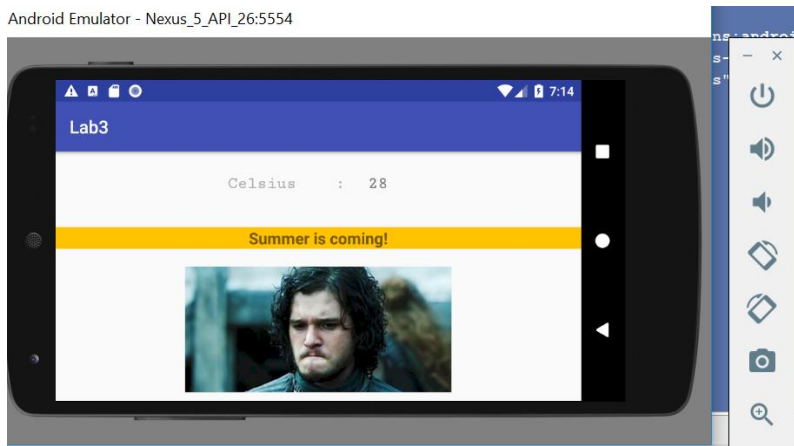## SCROLL IMPLEMENTATION FOR LANDSCAPE MODE

```xml
<?xml version="1.0" encoding="utf-8"?>
<android.support.constraint.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="m.com.lab3.MainActivity">

    <ScrollView
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_marginBottom="10dp">

    <RelativeLayout
        android:id="@+id/relview1"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:layout_alignParentStart="true"
        android:layout_alignParentTop="true"
        tools:layout_editor_absoluteX="0dp"
        tools:layout_editor_absoluteY="0dp">

        <SeekBar
            android:id="@+id/seekBar"
            android:layout_width="match_parent"
            android:layout_height="wrap_content"
            android:layout_alignEnd="@+id/textView12"
            android:layout_alignStart="@+id/textView12"
            android:layout_below="@+id/textView12"
            android:layout_marginTop="24dp"
            android:max="200"
            android:progress="0" />

        <TextView
            android:id="@+id/textView7"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_alignBottom="@+id/seekBar"
            android:layout_toStartOf="@+id/seekBar"
            android:text="0F"
            android:textColor="@android:color/holo_blue_light"
            android:textSize="14sp"
            android:textStyle="bold" />

        <TextView
            android:id="@+id/textView11"
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:layout_alignBottom="@+id/seekBar"
            android:layout_alignParentEnd="true"
            android:layout_toEndOf="@+id/seekBar"
            android:text="200F"
            android:textColor="@android:color/holo_red_dark"
            android:textSize="14sp"
            android:textStyle="bold" />

        <TextView
            android:id="@+id/textView12"
```

```xml
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="22dp"
        android:padding="7dp"
        android:shadowColor="#B30753"
        android:shadowDx="0.0"
        android:shadowDy="0.0"
        android:shadowRadius="12"
        android:text="Temperature Converter"
        android:textSize="24sp" />

    <TextView
        android:id="@+id/textView2"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_below="@+id/textView7"
        android:layout_marginStart="28dp"
        android:layout_marginTop="36dp"
        android:layout_toEndOf="@+id/textView7"
        android:fontFamily="serif-monospace"
        android:text="Fahrenheit :"
        android:textColor="@android:color/darker_gray"
        android:textSize="18sp"
        android:textStyle="bold" />

    <TextView
        android:id="@+id/textView3"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignStart="@+id/textView2"
        android:layout_below="@+id/textView2"
        android:layout_marginTop="25dp"
        android:fontFamily="serif-monospace"
        android:text="Celsius     :"
        android:textColor="@android:color/darker_gray"
        android:textSize="18sp"
        android:textStyle="bold" />

    <TextView
        android:id="@+id/textView4"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignTop="@+id/textView2"
        android:layout_marginStart="26dp"
        android:layout_toEndOf="@+id/textView2"
        android:fontFamily="serif-monospace"
        android:text=""
        android:textAlignment="viewStart"
        android:textSize="18sp"
        android:textStyle="bold" />

    <TextView
        android:id="@+id/textView5"
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:layout_alignBaseline="@+id/textView3"
        android:layout_alignBottom="@+id/textView3"
        android:layout_alignStart="@+id/textView4"
        android:fontFamily="serif-monospace"
        android:text=""
        android:textAlignment="viewStart"
```

```xml
                android:textSize="18sp"
                android:textStyle="bold" />

            <TextView
                android:id="@+id/textView"
                android:layout_width="match_parent"
                android:layout_height="wrap_content"
                android:layout_marginTop="250dp"
                android:background="@android:color/holo_blue_bright"
                android:text=""
                android:textAlignment="center"
                android:textSize="18sp"
                android:textStyle="bold" />

            <ImageView
                android:id="@+id/imageView"
                android:layout_width="match_parent"
                android:layout_height="200dp"
                android:layout_below="@+id/textView"
                android:layout_marginTop="20dp" />

    </RelativeLayout>
</ScrollView>

</android.support.constraint.ConstraintLayout>
```

MAINACTIVITY.JAVA

```java
package m.com.lab3;

import android.graphics.Color;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.util.Log;
import android.widget.ImageView;
import android.widget.SeekBar;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends AppCompatActivity {

    private SeekBar seekbar;
    private TextView farText;
    private TextView celText;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_main);

        /* Setting listeners for seek bar widget*/
        seekbar = (SeekBar) findViewById(R.id.seekBar);
        farText = (TextView)findViewById(R.id.textView4);
        celText = (TextView)findViewById(R.id.textView5);

        seekbarListener();
        seekbar.setProgress(0);
        calculateCelValue(0);
        showImageAndText("winter");
    }
```

```java
    /* Function to calculate fahrenheit and celsius values  */
    private void calculateCelValue(int farValue)
    {
        long celsiusValue = Math.round((5.0/9.0)*(farValue-32));
        farText.setText(""+farValue);
        celText.setText(""+celsiusValue);
    }

    /* Function show image and text dynamically*/

    private void showImageAndText(String type)
    {
        ImageView img = (ImageView)findViewById(R.id.imageView);
        TextView disText = (TextView)findViewById(R.id.textView);

        if("winter".equalsIgnoreCase(type))
        {
            img.setImageResource(R.drawable.winter);
            disText.setText("Winter is Coming!");
            disText.setBackgroundColor(Color.parseColor("#31D3F0"));
        }
        else if("summer".equalsIgnoreCase(type))
        {
            img.setImageResource(R.drawable.summer);
            disText.setText("Summer is coming!");
            disText.setBackgroundColor(Color.parseColor("#FFC300"));
        }
        else if("hottest".equalsIgnoreCase(type))
        {
            img.setImageResource(R.drawable.hottest);
            disText.setText("Hot days are coming!");
            disText.setBackgroundColor(Color.parseColor("#B3000A"));
        }
    }

    /* Listener for seek bar */

    private void seekbarListener()
    {
        seekbar.setOnSeekBarChangeListener(new SeekBar.OnSeekBarChangeListener()
        {
            int farValue = 0;

            /* Track seek bar progress with this method */

            public void onProgressChanged(SeekBar seekBar, int progress, boolean
fromUser)
            {
                farValue = progress;

                calculateCelValue(farValue);

                if(farValue <= 40)
                {
                    showImageAndText("winter");
                }
                else if(farValue > 40 && farValue < 90)
                {
                    showImageAndText("summer");
                }
                else if(farValue >= 90 && farValue <= 200)
                {
                    showImageAndText("hottest");
```

```java
            }

        }

        /* Track start of seek bar progress with this method */

        public void onStartTrackingTouch(SeekBar seekBar)
        {
            /* Implement abstract method  */
        }

        public void onStopTrackingTouch(SeekBar seekBar)
        {
            /* Implement abstract method  */
            //Toast.makeText(MainActivity.this, ""+farValue,
Toast.LENGTH_SHORT).show();
        }
    });
    }
}
```

ANDROIDMAINFESTS.XML

```xml
<?xml version="1.0" encoding="utf-8"?>
<manifest xmlns:android="http://schemas.android.com/apk/res/android"
    package="m.com.lab3">

    <application
        android:allowBackup="true"
        android:icon="@mipmap/ic_launcher"
        android:label="@string/app_name"
        android:roundIcon="@mipmap/ic_launcher_round"
        android:supportsRtl="true"
        android:theme="@style/AppTheme">
        <activity android:name=".MainActivity"
            android:configChanges="orientation">
            <intent-filter>
                <action android:name="android.intent.action.MAIN" />

                <category android:name="android.intent.category.LAUNCHER" />
            </intent-filter>
        </activity>
    </application>

</manifest>
```