Lab 3

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CSE 461 – Tong Yu

Part I: Basics – Create Hello World App

We followed the instructions that were provided to us in the Android guide posted on Dr. Yu’s website. It provided a step by step instruction on how to use the IDE and the development of the first app. It provided an insight on how to run an instance of the application and provides more than one “emulator” to run the application on. Bellow is the snippets of code used to develop the Hello World App.

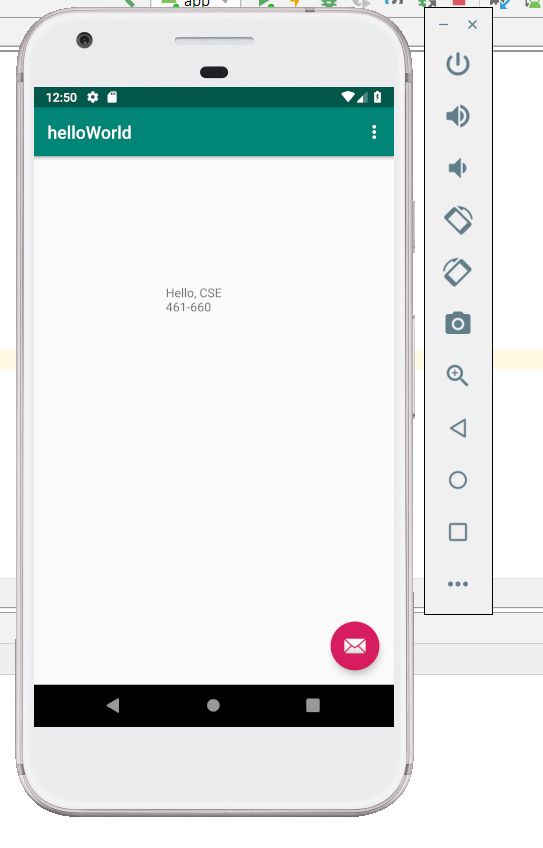
MainActivity.java

**package** com.example.helloworld;  
  
**import** android.os.Bundle;  
**import** android.support.design.widget.FloatingActionButton;  
**import** android.support.design.widget.Snackbar;  
**import** android.support.v7.app.AppCompatActivity;  
**import** android.support.v7.widget.Toolbar;  
**import** android.view.View;  
**import** android.view.Menu;  
**import** android.view.MenuItem;  
  
**public class** MainActivity **extends** AppCompatActivity {  
  
 @Override  
 **protected void** onCreate(Bundle savedInstanceState) {  
 **super**.onCreate(savedInstanceState);  
 setContentView(R.layout.***activity\_main***);  
 Toolbar toolbar = findViewById(R.id.***toolbar***);  
 setSupportActionBar(toolbar);  
  
 FloatingActionButton fab = findViewById(R.id.***fab***);  
 fab.setOnClickListener(**new** View.OnClickListener() {  
 @Override  
 **public void** onClick(View view) {  
 Snackbar.*make*(view, **"Replace with your own action"**, Snackbar.***LENGTH\_LONG***)  
 .setAction(**"Action"**, **null**).show();  
 }  
 });  
 }  
  
 @Override  
 **public boolean** onCreateOptionsMenu(Menu menu) {  
 *// Inflate the menu; this adds items to the action bar if it is present.* getMenuInflater().inflate(R.menu.***menu\_main***, menu);  
 **return true**;  
 }  
  
 @Override  
 **public boolean** onOptionsItemSelected(MenuItem item) {  
 *// Handle action bar item clicks here. The action bar will  
 // automatically handle clicks on the Home/Up button, so long  
 // as you specify a parent activity in AndroidManifest.xml.* **int** id = item.getItemId();  
  
 *//noinspection SimplifiableIfStatement* **if** (id == R.id.***action\_settings***) {  
 **return true**;  
 }  
  
 **return super**.onOptionsItemSelected(item);  
 }  
}

Content\_Main.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"  
 app:layout\_behavior="@string/appbar\_scrolling\_view\_behavior"  
 tools:context=".MainActivity"  
 tools:showIn="@layout/activity\_main"**>  
  
 <**TextView  
 android:layout\_width="109dp"  
 android:layout\_height="102dp"  
 android:text="Hello, CSE 461-660"  
 app:layout\_constraintBottom\_toBottomOf="parent"  
 app:layout\_constraintLeft\_toLeftOf="parent"  
 app:layout\_constraintRight\_toRightOf="parent"  
 app:layout\_constraintTop\_toTopOf="parent"  
 app:layout\_constraintVertical\_bias="0.291"  
 tools:layout\_editor\_absoluteX="121dp"**/>  
  
</**android.support.constraint.ConstraintLayout**>

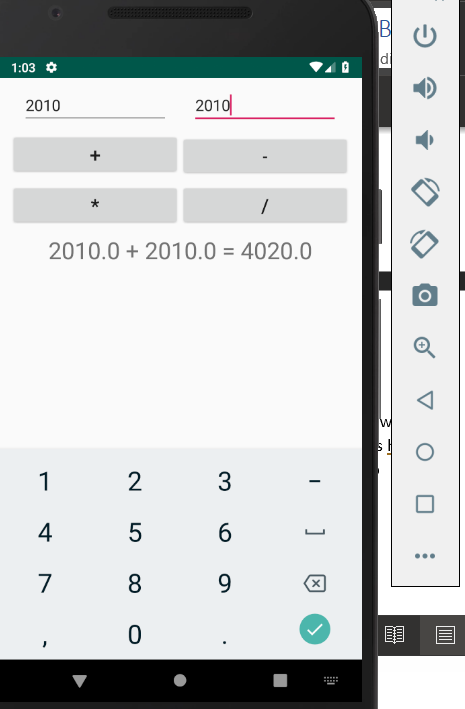
**Output:**



**Part II: Simple Calculator – w/Android**

The code in this section was provided by the professor’s lab manual. It provided an insight about how a calculator can be created using simple java. Although the input of the code is very complex, changes has to be made to suit the needs of the virtual phone. The following is the OUTPUT we received prior to completing the assignment:

**PRIOR OUTPUT:**



**After modifying the code:**