Mobile Application Development-HNDIT2417
Individual Assignment 02

Second Year   -   Semester 2

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GAM/IT/2020/F/0044

activity_main.xml

```xml
<RelativeLayout xmlns:android="http://schemas.android.com/apk/res/android"
    xmlns:tools="http://schemas.android.com/tools"
    android:layout_width="match_parent"
    android:layout_height="match_parent"
    android:paddingLeft="@dimen/activity_horizontal_margin"
    android:paddingRight="@dimen/activity_horizontal_margin"
    android:paddingTop="@dimen/activity_vertical_margin"
    android:background="#008080"
    android:paddingBottom="@dimen/activity_vertical_margin"
    tools:context=".MainActivity">


    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Welcome Calculator"
        android:id="@+id/txtwelcome"
        android:textSize="60dp"
        android:gravity="center"
        android:textStyle="bold"
        android:textColor="#ffffff"
        android:layout_alignParentTop="true"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="44dp" />

    <Button
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:text="Go To"
        android:textSize="40dp"
        android:textStyle="bold"
        android:id="@+id/btnGo"
        android:textColor="#008080"
        android:background="#ffffff"
        android:shadowColor="#ffffff"
        android:layout_below="@+id/txtwelcome"
        android:layout_centerHorizontal="true"
        android:layout_marginTop="73dp" />

</RelativeLayout>
```


MainActivity.java

```java
package com.example.tech.assignment2;

import android.content.Intent;
import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
```

```java
public class MainActivity extends AppCompatActivity {
    Button Gobtn;

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

        Gobtn=(Button)findViewById(R.id.btnGo);

        Gobtn.setOnClickListener(new View.OnClickListener() {
            @Override
            public void onClick(View v) {
                Intent i=new Intent(getApplicationContext(),Calculator.class);
                startActivity(i);
            }
        });
    }

    @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);
    }
}
```

activity_calculator.xml

```xml
<LinearLayout
        xmlns:android="http://schemas.android.com/apk/res/android"
        xmlns:tools="http://schemas.android.com/tools"
        tools:context="com.example.tech.assignment2.Calculator"
        android:layout_width="match_parent"
        android:layout_height="match_parent"
        android:background="#008080"
        android:orientation="vertical">

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
```

```xml
        android:layout_marginTop="40dp"
        android:weightSum="1">

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="N1"
            android:textSize="35dp"
            android:id="@+id/txtnum1"
            android:textColor="#ffffff"
            android:textStyle="bold"
            android:layout_marginStart="20dp"
            android:layout_marginLeft="20dp"/>

        <EditText
            android:layout_width="263dp"
            android:layout_height="wrap_content"
            android:id="@+id/num1"
            android:textColor="#ffffff"
            android:layout_weight="0.13"
            android:textSize="30dp"
            android:layout_marginLeft="30dp"
            android:inputType="number"/>

    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginTop="50dp">

        <TextView
            android:layout_width="wrap_content"
            android:layout_height="wrap_content"
            android:text="N2"
            android:textSize="35dp"
            android:textColor="#ffffff"
            android:textStyle="bold"
            android:id="@+id/txtnum2"
            android:layout_marginStart="20dp"
            android:layout_marginLeft="20dp"/>

        <EditText
            android:layout_width="263dp"
            android:layout_height="wrap_content"
            android:id="@+id/num2"
            android:layout_marginLeft="30dp"
            android:textColor="#ffffff"
            android:layout_weight="0.13"
            android:textSize="30dp"
            android:inputType="number"/>

    </LinearLayout>

    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:layout_marginTop="60dp">

        <Button
            android:layout_width="60dp"
```

```xml
        android:layout_height="wrap_content"
        android:text="+"
        android:textStyle="bold"
        android:id="@+id/btnAdd"
        android:background="#ffffff"
        android:textSize="35dp"
        android:layout_marginStart="20dp"
        android:layout_marginLeft="20dp"/>

    <Button
        android:layout_width="60dp"
        android:layout_height="wrap_content"
        android:text="-"
        android:id="@+id/btnSub"
        android:textStyle="bold"
        android:background="#ffffff"
        android:textSize="35dp"
        android:layout_marginStart="25dp"
        android:layout_marginLeft="25dp"/>

    <Button
        android:layout_width="60dp"
        android:layout_height="wrap_content"
        android:text="*"
        android:id="@+id/btnMul"
        android:textStyle="bold"
        android:background="#ffffff"
        android:textSize="35dp"
        android:layout_marginStart="30dp"
        android:layout_marginLeft="30dp" />

    <Button
        android:layout_width="60dp"
        android:layout_height="wrap_content"
        android:text="/"
        android:id="@+id/btnDiv"
        android:textStyle="bold"
        android:background="#ffffff"
        android:textSize="35dp"
        android:layout_marginStart="35dp"
        android:layout_marginLeft="35dp"/>

</LinearLayout>

    <TextView
        android:layout_width="wrap_content"
        android:layout_height="wrap_content"
        android:id="@+id/answer"
        android:layout_marginTop="70dp"
        android:layout_gravity="center_horizontal"
        android:textSize="30dp"
        android:textColor="#ffffff"
        android:textStyle="bold"/>


</LinearLayout>
```

Calculator.java

```java
package com.example.tech.assignment2;

import android.support.v7.app.AppCompatActivity;
import android.os.Bundle;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

public class Calculator extends AppCompatActivity implements View.OnClickListener{

    Button Addbtn, Subbtn, Mulbtn, Divbtn;
    EditText editTextN1, editTextN2;
    TextView textView;
    int num1, num2;

    @Override
    protected void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.activity_calculator);
        Addbtn =(Button)findViewById(R.id.btnAdd);
        Subbtn =(Button)findViewById(R.id.btnSub);
        Mulbtn =(Button)findViewById(R.id.btnMul);
        Divbtn =(Button)findViewById(R.id.btnDiv);
        editTextN1=(EditText)findViewById(R.id.num1);
        editTextN2=(EditText)findViewById(R.id.num2);
        textView=(TextView)findViewById(R.id.answer);

        Addbtn.setOnClickListener(this);
        Subbtn.setOnClickListener(this);
        Mulbtn.setOnClickListener(this);
        Divbtn.setOnClickListener(this);

    }

    public int getIntFromEditText(EditText editText){
        if (editText.getText().toString().equals("")){
            Toast.makeText(Calculator.this, "Enter number",
Toast.LENGTH_SHORT).show();
            return 0;
        } else
            return Integer.parseInt(editText.getText().toString());
    }


    @Override
    public void onClick(View view) {
        num1 = getIntFromEditText(editTextN1);
        num2 = getIntFromEditText(editTextN2);
        switch (view.getId()){
            case R.id.btnAdd:
                textView.setText("Answer = " + (num1 + num2));
                break;

            case R.id.btnSub:
```

```java
                textView.setText("Answer = " + (num1 - num2));
                break;

            case R.id.btnMul:
                textView.setText("Answer = " + (num1 * num2));
                break;

            case R.id.btnDiv:
                textView.setText("Answer = " + ((float)num1 / (float)num2));
                break;
        }


    }
}
```