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package com.example.calc;

import android.os.Bundle;
import android.app.Activity;
import android.text.TextUtils;
import android.view.Menu;
import android.view.MenuItem;
import android.view.View;
import android.view.View.OnClickListener;
import android.widget.Button;
import android.widget.EditText;
import android.widget.TextView;
import android.widget.Toast;

public class MainActivity extends Activity implements OnClickListener {

    final int MENU_RESET_ID = 1;
    final int MENU_QUIT_ID = 2;
    EditText Number1;
    EditText Number2;
    Button AddButton;
    Button SubButton;
    TextView TextViewResult;
    String sign = "";

    /** Called when the activity is first created. */
    @Override
    public void onCreate(Bundle savedInstanceState) {
        super.onCreate(savedInstanceState);
        setContentView(R.layout.fragment_main);
        //Εντοπισμός και αρχικοποίηση των elements
        Number1 = (EditText) findViewById(R.id.Number1);
        Number2 = (EditText) findViewById(R.id.Number2);
        AddButton = (Button) findViewById(R.id.AddButton);
        SubButton = (Button) findViewById(R.id.SubButton);
        TextViewResult = (TextView) findViewById(R.id.TextViewResult);
        //Καθορισμός Click Listener στα Buttons
        AddButton.setOnClickListener(this);
        SubButton.setOnClickListener(this);
    }
    @Override
    public void onClick(View v) {
        float number1 = 0;
        float number2 = 0;
        float result = 0;
        //Validation Testing for empty fields
        if (TextUtils.isEmpty(Number1.getText().toString()) ||
            TextUtils.isEmpty(Number2.getText().toString())) {

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    return; //Nothing happens
}
//Αποθήκευση των τιμών των πεδίων σε μεταβλητές
number1 = Float.parseFloat(Number1.getText().toString());
number2 = Float.parseFloat(Number2.getText().toString());

//δομή επιλογής Switch για να τρέξει η σωστή πράξη
//View v.getId() βρίσκει το control που έχει κάνει την action onclick
switch (v.getId()) {
case R.id.AddButton:
    sign = "+";
    result = number1 + number2;
    break;
case R.id.SubButton:
    sign = "-";
    result = number1 - number2;
    break;
default:
    break;
}
//Εμφάνιση αποτελεσμάτων
TextViewResult.setText(number1 + " " + sign + " " + number2 + " = " + result);
//χρήση Toast Messaging
Toast toast = Toast.makeText(getApplicationContext(), "The result i found is :"+ result, 5);
toast.show();
}

//Δημιουργία menu
@Override
public boolean onCreateOptionsMenu(Menu menu) {
    // TODO Auto-generated method stub
    menu.add(0, MENU_RESET_ID, 0, "Reset");
    menu.add(0, MENU_QUIT_ID, 0, "Quit");
    return super.onCreateOptionsMenu(menu);
}

@Override
public boolean onOptionsItemSelected(MenuItem item) {
    // TODO Auto-generated method stub
    switch (item.getItemId()) {
case MENU_RESET_ID:
    //Διενέργεια εκκαθάρισης στα πεδία
    Number1.setText("");
    Number2.setText("");
    TextViewResult.setText("");
    break;
case MENU_QUIT_ID:

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//έξοδος
finish();
break;
}
return super.onOptionsItemSelected(item);
}
}
}

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<?xml version="1.0" encoding="utf-8"?>
<LinearLayout
    xmlns:android="http://schemas.android.com/apk/res/android"
    android:orientation="vertical"
    android:layout_width="fill_parent"
    android:layout_height="fill_parent">
    <LinearLayout
        android:layout_width="match_parent"
        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:id="@+id/LinearLayout1"
        android:layout_marginLeft="10pt"
        android:layout_marginRight="10pt"
        android:layout_marginTop="3pt">
        <EditText
            android:layout_weight="1"
            android:layout_height="wrap_content"
            android:layout_marginRight="5pt"
            android:id="@+id/Number1"
            android:layout_width="match_parent"
            android:inputType="numberDecimal">
        </EditText>
        <EditText
            android:layout_height="wrap_content"
            android:layout_weight="1"
            android:layout_marginLeft="5pt"
            android:id="@+id/Number2"
            android:layout_width="match_parent"
            android:inputType="numberDecimal">
        </EditText>
    </LinearLayout>
</LinearLayout>

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        android:layout_height="wrap_content"
        android:orientation="horizontal"
        android:id="@+id/LinearLayout2"
        android:layout_marginTop="3pt"
        android:layout_marginLeft="5pt"
        android:layout_marginRight="5pt">
            <Button
                android:layout_height="wrap_content"
                android:layout_width="match_parent"
                android:layout_weight="1"
                android:text="+"
                android:textSize="8pt"
                android:id="@+id/AddButton">
            </Button>
            <Button
                android:layout_height="wrap_content"
                android:layout_width="match_parent"
                android:layout_weight="1"
                android:text="-"
                android:textSize="8pt"
                android:id="@+id/SubButton">
            </Button>

    </LinearLayout>
    <TextView
        android:layout_height="wrap_content"
        android:layout_width="match_parent"
        android:orientation="horizontal"
        android:layout_marginLeft="5pt"
        android:layout_marginRight="5pt"
        android:textSize="12pt"
        android:layout_marginTop="3pt"
        android:id="@+id/TextViewResult"
        android:gravity="center_horizontal">
    </TextView>
</LinearLayout>
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