Android app demonstrating async task using a web view in a simple app

package com.assignment.simpleapp;

import java.io.BufferedInputStream;

import java.io.IOException;

import java.io.InputStream;

import java.net.MalformedURLException;

import java.net.URL;

import org.apache.http.util.ByteArrayBuffer;

import android.app.Activity;

import android.app.AlertDialog;

import android.graphics.Bitmap;

import android.os.Bundle;

import android.util.Log;

import android.view.View;

import android.view.View.OnClickListener;

import android.webkit.WebView;

import android.webkit.WebViewClient;

import android.widget.Button;

import android.widget.TextView;

import android.os.AsyncTask;

public class MainActivity extends Activity {

private boolean pageLoaded = false;

static final String TAG = "MainActivity";

private TextView companySymbol;

private TextView sharePrice;

private TextView percentageChange;

@Override

protected void onCreate(Bundle savedInstanceState) {

super.onCreate(savedInstanceState);

setContentView(R.layout.activity\_main);

final String url = "http://www.sjsu.edu";

final WebView view = (WebView) this.findViewById(R.id.webView1);

view.setWebViewClient(new MyWebViewClient());

Button loadUrlBtn = (Button) findViewById(R.id.load\_url\_btn);

Button submitAssignmentBtn = (Button) findViewById(R.id.submit\_assignment\_btn);

Button stockValueBtn = (Button) findViewById(R.id.stock\_value\_btn);

companySymbol = (TextView) findViewById(R.id.company\_symbol);

sharePrice = (TextView) findViewById(R.id.share\_price);

percentageChange = (TextView) findViewById(R.id.percent\_change);

//submitAssignmentButton

loadUrlBtn.setOnClickListener(new OnClickListener(){

@Override

public void onClick(View v){

view.loadUrl(url);

}

});

submitAssignmentBtn.setOnClickListener(new OnClickListener() {

@Override

public void onClick(View v) {

// TODO Auto-generated method stub

if(pageLoaded==true) {

AlertDialog.Builder builder= new AlertDialog.Builder(MainActivity.this);

builder.setTitle("Congrats");

builder.setMessage("Assignment Completed");

builder.setPositiveButton("Ok", null);

builder.show();

}

else {

AlertDialog.Builder builder= new AlertDialog.Builder(MainActivity.this);

builder.setTitle("Sorry!");

builder.setMessage("Please click on the other button first to complete the assignment");

builder.setPositiveButton("Ok", null);

builder.show();

}

}

});

stockValueBtn.setOnClickListener(new OnClickListener() {

@Override

public void onClick(View v) {

new AsyncCaller().execute();

}

});

}

class MyWebViewClient extends WebViewClient {

@Override

public void onPageStarted(WebView view, String url, Bitmap favicon) {

super.onPageStarted(view, url, favicon);

pageLoaded = false;

}

@Override

public void onPageFinished(WebView view, String url) {

super.onPageFinished(view, url);

pageLoaded = true;

}

@Override

public void onReceivedError(WebView view, int errorCode,

String description, String failingUrl) {

super.onReceivedError(view, errorCode, description, failingUrl);

pageLoaded = false;

}

}

class AsyncCaller extends AsyncTask<Void, Void, Stock>

{

@Override

protected void onPreExecute() {

super.onPreExecute();

//this method will be running on UI thread

}

@Override

protected Stock doInBackground(Void... params) {

Log.e(TAG, "Inside bg");

//this method will be running on background thread so don't update UI frome here

//do your long running http tasks here,you dont want to pass argument and u can access the parent class' variable url over here

URL url;

try {

url= new URL("http://download.finance.yahoo.com/d/quotes.csv?s=goog&f=sl1p2");

InputStream stream = url.openStream();

BufferedInputStream bis = new BufferedInputStream(stream);

ByteArrayBuffer baf = new ByteArrayBuffer(200);

int current = 0;

while((current = bis.read())!=-1){

baf.append((byte)current);

}

String stockTxt = new String(baf.toByteArray());

String[] tokens = stockTxt.split(",");

for(int i = 0; i < tokens.length; i++) {

Log.e(TAG, "Response --> " + tokens[i]);

}

Stock stock = new Stock(tokens[0], tokens[1], tokens[2]);

String symbolOut1 = tokens[0];

String priceOut1 = tokens[1];

String changePercentage1 = tokens[2];

String fsymbolOut = symbolOut1.substring(1, symbolOut1.length() -1);

String fchangePercentage = changePercentage1.substring(1, changePercentage1.length() -3);

return stock;

} catch (MalformedURLException e) {

// TODO Auto-generated catch block

e.printStackTrace();

} catch (IOException e) {

// TODO Auto-generated catch block

e.printStackTrace();

}

return null;

}

@Override

protected void onPostExecute(Stock result) {

super.onPostExecute(result);

if(result != null) {

companySymbol.setText(result.getOrganizationName());

percentageChange.setText(result.getPercentchange());

sharePrice.setText(result.getCurrentValue());

}

}

}

class Stock {

private String organizationName;

private String currentValue;

private String percentChange;

public Stock(String organizationName, String currentValue,

String changeinPercent) {

this.organizationName = organizationName;

this.currentValue = currentValue;

this.percentChange = changeinPercent;

}

public String getOrganizationName() {

return organizationName;

}

public void setOrganizationName(String organizationName) {

this.organizationName = organizationName;

}

public String getCurrentValue() {

return currentValue;

}

public void setCurrentValue(String currentValue) {

this.currentValue = currentValue;

}

public String getPercentchange() {

return percentChange;

}

public void setPercentChange(String changeinPercent) {

this.percentChange = changeinPercent;

}

}

}