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# Mobile: Plan for BJBU (Wednesday week 36-Monday week 37)

## Goal for the week (Wednesday to Tuesday)

* You should be able to use options menu in your Android app
* You should be able make customized ListView (and spinner)
* You should be able to make simple exchange of data with a website / webservice in your app

## Teachers plan for Wednesday 2/9 in Odense & Vejle – conference room (bjbu from Odense)

* Follow up on the weeks of study
* Short about Options menu and inflate
* Special about using customized efficient ListView (and Spinner = combobox)  
  Also including the webview gui element.  
  link: <http://bjoerks.net/klasser/Mobile_2015_Foraar/materials/Bjoerks_ListeDemoActivity_20150225.zip>
* Special about using customized efficient ListView (and Spinner = combobox)  
  link: <http://bjoerks.net/klasser/Mobile_2015_Foraar/materials/Bjoerks_ListeDemoActivity_20150225.zip>
* Accessing webservice for external data  
  I use HttpRLConnection in my example and not HttpClient, as I discovered there is discussion about only HttpURLConnection is supported by the Android team.  
  For these examples you will have to choose an and old Android version fx 2.2.3 as you now only are allowed to use asynchronous access for demand of liveness – but for the beginning you might find it easier to debug when using synchronous call.  
  [Android\_HttpGetRequest\_Syncrone\_20150304.zip](http://bjoerks.net/klasser/Mobile_2015_Foraar/materials/Android_HttpGetRequest_Syncrone_20150304.zip) (Basic of making synchronized web call - http get request – only allowed in older android versions)  
  [Android\_HttpGetPostRequest\_Syncrone\_20150304.zip](http://bjoerks.net/klasser/Mobile_2015_Foraar/materials/Android_HttpGetPostRequest_Syncrone_20150304.zip) (Basic of making synchronized web call - http post request – only allowed in older android versions)  
  [Android\_HttpGetPostRequest\_AssertXmlReq\_20150304.zip](http://bjoerks.net/klasser/Mobile_2015_Foraar/materials/Android_HttpGetPostRequest_AssertXmlReq_20150304.zip) (Expanded example with trick to make soap web call a little more easy).  
    
  Same example using asynchronous access by running the call in background.  
  We might not get to this point and will surly talk about AsyncTask next week again.  
  [Android\_HttpGetPostRequest\_AssertXmlReq\_Asynk\_20150304.zip](http://bjoerks.net/klasser/Mobile_2015_Foraar/materials/Android_HttpGetPostRequest_AssertXmlReq_Asynk_20150304.zip) (Last call is now done asynchronous by using AsyncTask – general async solution)

## Prepare yourself by before and after lecture

* viewing following tutorial this playlist: [**https://www.youtube.com/playlist?list=PL6gx4Cwl9DGBsvRxJJOzG4r4k\_zLKrnxl**](https://www.youtube.com/playlist?list=PL6gx4Cwl9DGBsvRxJJOzG4r4k_zLKrnxl)  
  **45, 46 (Simple ListView)  
  47 (Custom ListView Adapter)**
* **reading briefly about**
* **Tutorial - simple ListView:** [**http://hmkcode.com/android-creating-simple-listview/**](http://hmkcode.com/android-creating-simple-listview/)**Tutorial – customer ListView:** [**http://www.vogella.com/tutorials/AndroidListView/article.html#adapterown\_example**](http://www.vogella.com/tutorials/AndroidListView/article.html#adapterown_example)**Tutorial – customer ListView and performance:** [**http://www.vogella.com/tutorials/AndroidListView/article.html#adapterperformance**](http://www.vogella.com/tutorials/AndroidListView/article.html#adapterperformance)**Tutorial – Creating an Options Menu:** [**http://developer.android.com/guide/topics/ui/menus.html#options-menu**](http://developer.android.com/guide/topics/ui/menus.html#options-menu) **Tutorial - Connecting to the Network:** [**http://developer.android.com/training/basics/network-ops/connecting.html**](http://developer.android.com/training/basics/network-ops/connecting.html) **Reference – HttpURLConnection class:** [**http://developer.android.com/reference/java/net/HttpURLConnection.html**](http://developer.android.com/reference/java/net/HttpURLConnection.html)
* **Example using the HttpClient (Be aware of there is discussion about only HttpURLConnection is supported by the Android team)  
  still the example gives you some ideas using Asynchronous Http Client:**[**http://loopj.com/android-async-http/**](http://loopj.com/android-async-http/)[**http://stackoverflow.com/questions/4457492/how-do-i-use-the-simple-http-client-in-android**](http://stackoverflow.com/questions/4457492/how-do-i-use-the-simple-http-client-in-android)

## Extra useful tools for making interacting with webservices:

* **With WCF services (and ASMX) you can get the necessary data for SOAP call with WcfTestClient.exe you probably will find here "C: \ Program Files (x86) \ Microsoft Visual Studio ….. \ …… \ IDE \ WcfTestClient.exe"**
* **Fidler is a usefull tool to show all what is sent and received on the http protocol:** [**http://www.telerik.com/download/fiddler**](http://www.telerik.com/download/fiddler) **You can use this tool for discover how to interact with a webservice, by using the service from other applications.**

## Ideas for small exercises:

* **External data to be used with web access**
* **Webservices for retrieving data** [**http://webservicedemo.datamatiker-skolen.dk/**](http://webservicedemo.datamatiker-skolen.dk/) **Both with soap and REST call for JSON and XML**
* **Webservice with geodata from Odense Municipality** [**http://geodata.odense.dk/datatothepeople/**](http://geodata.odense.dk/datatothepeople/) **for retrieving JSON or XML data for fx parks and playgrounds.**
* **Make an app, which can show a list of data retrieved from webservice – fx list of parks in Odense  
  When selecting an item show detail in another screen (activity)**

## More links about android

I have found this quite brilliant tutorials that provides many concrete examples of use of various facilities:  
<http://www.vogella.com/tutorials/android.html>    
<http://www.vogella.com/tutorials/Android/article.html>    
**Fx Tutorial - more about ListView:** [**http://www.vogella.com/tutorials/AndroidListView/article.html**](http://www.vogella.com/tutorials/AndroidListView/article.html)

## Monday – only Odense (bjbu available 8:30-11:50):

* Follow up on lectures from Wednesday
* Solving problem according to the goal for the week

## Torsdag– kun Vejle (jawe available 9:15-13:15):

* Follow up on lectures from Wednesday
* Solving problem according to the goal for the week