# Mobile Development: Plan for week 08 [week 06](M2016F_plan_Week06.pdf) - [week 09](M2016F_plan_Week09.pdf)

## Goal for this week

* You should be able to communicate with a website/webservice in an acynchronous way.
* You have some knowledge about using user threads in java and special knowledge about running some part in background using AsyncTask to keep liveness for user in the app.
* You have some knowledge about threads and synchronizing in java.

**Preparation before Tuesday 23th February**

* Tutorial - Connecting to the Network: <http://developer.android.com/training/basics/network-ops/connecting.html>
Reference – HttpURLConnection class: <http://developer.android.com/reference/java/net/HttpURLConnection.html>
* Read briefly about AsyncTask
[Code Overtones Android AsyncTask template](http://jyro.blogspot.com/2009/11/android-asynctask-template.html)
[Android Threads, Handlers and AsyncTask - Tutorial](http://www.vogella.de/articles/AndroidPerformance/article.html#asynctask) (AsyncTask)
* Read briefly about parsing XML og JSON
[XmlPullParser Android Developers](http://developer.android.com/reference/org/xmlpull/v1/XmlPullParser.html)
[Android XML Parsing Tutorial](http://www.androidhive.info/2011/11/android-xml-parsing-tutorial/)
[JSON - Android Developers](http://developer.android.com/reference/org/json/package-summary.html)
[Android JSON Tutorial: Create and Parse JSON data](http://www.javacodegeeks.com/2013/10/android-json-tutorial-create-and-parse-json-data.html)
* Eventual study 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://stackoverflow.com/questions/4457492/how-do-i-use-the-simple-http-client-in-android>

## More links about android threads / asynchronous methods

* [Processes and Threads Android Developers](http://developer.android.com/guide/topics/fundamentals/processes-and-threads.html)
* [Code Overtones Android AsyncTask template](http://jyro.blogspot.com/2009/11/android-asynctask-template.html)
* [Android Threads, Handlers and AsyncTask - Tutorial](http://www.vogella.de/articles/AndroidPerformance/article.html#asynctask) (AsyncTask)
* [Android Threads, Handlers and AsyncTask - Tutorial](http://www.vogella.de/articles/AndroidPerformance/article.html) (Handlers)
* [Handler Android Developers](http://developer.android.com/reference/android/os/Handler.html)
* Eventual study 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://stackoverflow.com/questions/4457492/how-do-i-use-the-simple-http-client-in-android>

## Teachers plan for Tuesday 23th February (9:00-12:00)

* Follow up on the weeks of study (adjusting plan for week together)
* Accessing webservice for external data - asynchronous

Example using asynchronous access by running the call in background.
[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)

Briefly about JSON and XML format
* Java threads in general
[TraadEksempelMedSync.zip](http://bjoerks.net/klasser/Mobile_2012_Foraar/Materiale/TraadEksempelMedSync.zip)
* Students presentation of their APPS
* 11:15 Jesper from Geo Fyn will talk about webservices they can offer and possible projects to cooperate with Geo Fyn.

## Preparation before Friday 26th February

* Make one or to apps that can retrieve data from webservice or send data to webservice for update
Ideas for small apps/exercises using asynchronous access.
	+ External data to be used with web access
		- Webservices for retrieving data <http://webservicedemo.datamatiker-skolen.dk/>
		Both with soap and REST call for JSON and XML
		- Webservices from Geo Fyn:
		[http://dataportal.geofyn.dk](http://geofyn-ckan.mapcentia.com/dataset)
		Examples
		Playground in Svendborg: [http://geofyn.mapcentia.com/api/v1/sql/geofyn?q=select%20\*%20from%20svendborg.legepladser](http://geofyn.mapcentia.com/api/v1/sql/geofyn?q=select%20*%20from%20svendborg.legepladser)
		Parks in Svendborg:
		[http://geofyn.mapcentia.com/api/v1/sql/geofyn?q=select%20\*%20from%20svendborg.parker](http://geofyn.mapcentia.com/api/v1/sql/geofyn?q=select%20*%20from%20svendborg.parker)
	+ Make a RSS reader to get news from:
	- <http://dm-mobile.blogspot.dk/>
	- <https://www.sde.dk/SDE/site.aspx?p=793>
	- <http://www.dr.dk/Nyheder/Service/rss.htm>
	+ More will follow after Geo Fyn has made presentation Tuesday

## Teachers plan for Friday 26th February – 8:30-10:00

* Follow up on the weeks of study (adjusting plan for week together)