

# Mobile Development: Plan for week 06

[week 05](#) - [week 08](#)

## Goal for this week

- You should have knowledge about way of making data persistent and save some simple data.
- You should be able to use Shared Preferences and Android file system for keeping data persistent including using java serialization.
- You should be able to make simple exchange of data with a website / webservice in your app – using synchronize HTTP request (using Android 2.2 – API 8) – next week async

## Preparation before Tuesday 9<sup>th</sup> February

- viewing following tutorial this playlist:  
[https://www.youtube.com/playlist?list=PL6gx4Cwl9DGBsvRxJJOzG4r4k\\_zLKrnxl](https://www.youtube.com/playlist?list=PL6gx4Cwl9DGBsvRxJJOzG4r4k_zLKrnxl)  
**65, 66 (Shared Preferences)**
- reading briefly about
  - Tutorial - saving data:  
<https://developer.android.com/training/basics/data-storage/index.html>
  - 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>

## Teachers plan for Tuesday 9<sup>th</sup> February (9:00-12:00)

- Follow up on the weeks of study (adjusting plan for week together)
- Persistence (files and shared preferences) inclusive serialization  
slides: [Android Persistens.ppt](#)  
examples: [Android AppFiles 20150225.zip](#)
- Accessing webservice for external data  
I use HttpURLConnection 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](#) (Basic of making synchronized web call - http get request – only allowed in older android versions)  
[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](#) (Expanded example with trick to make soap web call a little more easy).  
**Next week will be same example/template expanded to be running asynchronous:**
- **Extra useful tools for making interacting with webservives:**

- 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"
- Fiddler is a usefull tool to show all what is sent and received on the http protocol:  
<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.

## Preparation before Friday 12<sup>th</sup> February

- Expand your apps from week 05 with using Shared Preferences or file system for making information as mail / phone numbers for parent ect. Persistent. (and debug them on device)
- Make one or to apps that can retrieve data from webservice or send data to webservice for update  
Ideas for small apps/exercises: **USE API 8 to allow synchronous access**
  - External data to be used with web access
    - Webservices for retrieving data <http://webservicesdemo.datamatiker-skolen.dk/>  
Both with soap and REST call for JSON and XML
    - Webservices for retrieving data <http://wcfdemo.datamatiker-skolen.dk/>
    - ~~▪ Webservice with gooddata from Odense Municipality  
<http://gooddata.odense.dk/datatothpeople/> for retrieving JSON or XML data for fx parks and playgrounds.~~
  - Make an app for simple calculation (add and subtract), which use a webservice for doing the calculation it self.
  - Make an app, which can show a list of persons retrieved from webservice  
When selecting an item show detail in another screen (activity)
  - ~~○ 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)~~
  -

## Teachers plan for Friday 12<sup>th</sup> February – **no lecture**

- All teachers is on a meeting this Friday, so you should work on your own.
- Together in small groups make a walk through your apps accessing webservices for getting and posting data.