Qt on Ubuntu

- If your Ubuntu does not have yet Qt5.x.y with QtCreator 2.8.x, start with installing QtSDK from http://qt-project.org/downloads
    - >cd
    - >cd Downloads
    - >chmod + x qt-...run
    - >sudo ./qt-...run
    - default settings are mostly OK for a desktop installation using gcc, select only 5.1.1 at “Select Components”
- After the installation some maps are wrongly owned by root. If you are not root user on your PC, you need to change this
    - >cd
    - >cd .config
    - >sudo chown -R groept Nokia (is currently from root)
    - >sudo chgrp -R groept Nokia
    - repeat last 2 steps for QtProject
- It's possible that your Linux has not yet the C++ compiler installed (C compiler by default of course) or an older version, we need 4.8
    - >[1] sudo add-apt-repository ppa:ubuntu-toolchain-r/test
    - > sudo apt-get update
    - > sudo apt-get install gcc-4.8 g++-4.8
    - > sudo update-alternatives --install /usr/bin/gcc gcc /usr/bin/gcc-4.8 20
    - > sudo update-alternatives --install /usr/bin/g++ g++ /usr/bin/g++-4.8 20
- Check in QtCreator under Tools > Options > Build and Run that your Qt Versions (need to find a decent qmake file) and the ToolChain (need to find a decent compiler) are correct.
- All projects will be stored on GROEP T's SVN server https://svn.studev.groept.be, so you also need to install subversion (and eventually a GUI client)
    - > sudo apt-get install subversion
    - > sudo apt-get install rapidsvn
- QtCreator has no possibility to create new projects directly on the SVN server, so you need to use following workaround:
    - create your project in the “normal” way from QtCreator, e.g. MyFirstProject
    - use RapidSVN to put it on the server
    - right click on Bookmarks > Add Existing Repository. Fill in there the right name of your repository on the server, e.g. https://svn.studev.groept.be/repos/a13_MPxx

1 Commands after a > needed to be typed in on a terminal window

    - select then Repository > Import
    - URL = https://svn.studev.groept.be/repos/a12_MPxx/MyFirstProject
    - Path = wherever_your_Qt_projects_are/MyFirstProject
    - you may enter a log message for the SVN server
    - when the project is stored on the server, return to QtCreator
    - close the project in QtCreator and remove the corresponding map
    - select then New File or Project > Import Project > Subversion checkout
    - Fill in as repository https://svn.studev.groept.be/repos/a12_MPxx/MyFirstProject and checkout. For some strange reason[2], you must choose another name for the Checkout Directory (otherwise QtCreator will not recognize this project as a project under version control)
    - Now your project is under version control and you can use all the functionality from Tools > Subversion
- If you want to add extra qch files (help format of QtCreator), e.g. for the STL or C++ syntax, you can download these from http://qt-project.org/wiki/Qt_Creator_Documentation_Gallery. Add then these file(s) in Tools > Options > Help > Documentation.
- solve problem with debugging sessions in terminal
    - >sudo gedit /etc/sysctl.d/10-ptrace.conf
    - change kernel.yama.ptrace.scope to 0 (last line)
    - save and reboot computer
- since gcc-4.8 is using a newer debug format you need at least gdb7.5 (if this is not the case you will see no Locals and Variables when you debug a project in QtCreator)
    - I found a package on http://www.ubuntuupdates.org/package/core/quantal/main/base/gdb
    - otherwise you can ask gcc to use to “old” format, add following line in every .pro file QMAKE_CXX_FLAGS += -gdwarf-3
- For the graphical applications you will also need an installation of OpenGL
    - > sudo apt-get install freeglut3-dev (I hope this works, because I tried some other things before...)
- Your environment is ready now. Read in Welcome > IDE overview the parts on Managing Projects, Coding, Building and Running and Debugging (to start with).

Personalising your Ubuntu

- Access to your Homedir. In nautilus, select File > Connect to Server. Use data.groept.be, choose secure Webdav and fill in username and password. Go to your home map and make a Bookmark for faster access.

2 Simply meaning that I have no explanation for this