Getting Started With GIT and Distributed Version Control

Exercise - 0, Installing Git-Extensions and preparing the gitignore file

Install Git Extensions from: http://sourceforge.net/projects/gitextensions/

Make sure to select the “Install MsysGit” option on the second wizard page (unless you already have it). Detailed installation instructions are found here: https://git-extensions-documentation.readthedocs.org/en/latest/getting_started.html

After installation, start Git-Extension, select Tools→Settings→Global Settings and set your username and email. This will be used for all projects when you commit your changes.

Exercise - 1, Creating Remote Repositories

The exercises below are team-exercises, so you only need one account per team, but I suggest that you all create a personal account. A central repository is perfect, also for individuals, as a backup media, and to synchronize work between different computers (laptop, desktop etc.)

If the only thing you need is version control (the unlimited undo list etc.) you don’t need the central repository. Git can run 100% offline, and you only have to push if you actually want to share your work with someone.

Exercise 2 -Team Exercise – Getting Started)

This exercise is a team exercises (with at least two participants). It will introduce how to use GIT Extensions. If you insist in doing this with NetBeans, follow the exercises/guidelines given during 2. semester.

Pick one member from the team as **User1** and use the central repository created by him/her for the exercise.

User1

Here we start with a completely new **project** which will be set under version control

1) Create a new plain java project
2) Clean and Build
3) Open Git Extensions
4) In Git Extension select Start→Open (navigate to your NetBeans project folder)
5) In Git Extension select “Initialize repository” (select all defaults)
6) Select Edit .gitignore and add the following lines to the file:

```
nbproject/private/
build/
dist/
```

Having completed the steps above the project is ready for GIT. The following steps can be done via Git-Extensions, NetBeans built in GIT-client, the command line or any Git Client you like.

This exercise however will use GIT Extensions

7) Provide a sufficient commit message and press Commit (this will allow you to stage and commit in one step)

8) Select Repository→ Remote Repositories.
Select “origin” as name (the default name used when you clone) and add the URL to your GIT-repository created in exercise-1.
Select “Save Changes” and accept the default push and pull behaviour.

8) Select **Push** using the settings provided above. Accept all default suggestions.

User 2..n

Here we would like to get our own working copy of the newly published solution.

7) Open Git Extensions and select start→Clone Reposititory
Add the URL from exercise-1 in “Repository to Clone” and select the folder where the project should be cloned to

All

8)

Start to work on the project (come up with something by yourself). First do it the right way. Communicate, communicate, communicate, and do not work on the same code (methods). Commit, Push and see how conflicts (if any) are solved automatically.

8) Now add some changes that will give a merge conflict and solve the conflict(s).