

07. Versioning, Git

Warning

Test 2 on December 8.

Lecture

Version control, Git



- Track changes in a set of files
- Coordinating work among developers
- Who made what changes and when
- Revert back at any time
- Local and remote repos
- Take snapshots of files by making a *commit*

Install

```
sudo apt install git
```

Basic commands

```
git init      # Initialize local git repo
git add <file>  # Add file/files to staging area
git status     # Check status of working tree and staging area
git commit -m "What I've done"  # Commit changes in index
git push       # Push to remote repository
git pull       # Pull latest changes from remote repo
git branch <new_branch_name>
git checkout <branch_name>
git merge <branch_name>  # Merge the branch into the current branch
git config --global user.name "Istvan Szabo"
git config --global user.email "istvan.szabo@gmail.com"
```

Tip

Store personal token: git config --global credential.helper store

Tip

Windows and Linux clock issue: timedatectl set-local-rtc 1 --adjust-system-clock

GitHub



```
git remote
git clone <link>  # Copy repo into a new directory

# Add remote to repository:
```

```
git remote add origin <link>
git push -u origin master
```

Some alternatives to GitHub

GitLab, BitBucket, Launchpad, Phabricator

Markdown

- Markup language, easy to read
- Text file → Formatted document
- Widespread usage, e.g., blogs, forums, documentations, readme files, GitHub
- [Markdown Cheatsheet](#)

Gyakorlat

0: GitHub repo létrehozása

1. Inicializálunk egy lokális git repo-t a `ros-course` package-ben.
2. Regisztrálunk GitHub-ra, majd hozzunk létre egy private repo-t a `ros_course` package számára. Állítsuk be a local repo-ban a remote-ot, majd push-oljuk a package tartalmát.