Version control

Is a system responsible for managing changes. Allows efficient cooperation of multiple coworkers on single project. Version control system creates history of changes for every project which can be tracked and we can revert the project to past states.

Git

- Most common version control system
- Git commands
    - git innit - initializes repository as git repository
    - git status - shows status of the repository
    - git add “filename” - adds file to the repo (tracks the file)
    - git add – all - adds all files to repo
    - git rm –cached “filename” - removes file from repo
    - git commit -m “message” - creates commit with message
    - git diff - shows differencein commit
    - git log - shows past commits
    - git reset “tag” - restore previous commit from log tag
    - git branch “branchname” - creates a branch
    - git switch “branchname” - checkout branch
    - git merge “branchname” - merges branch into main

- U can create .gitignore file to specify files to ignore, from example *.txt to ignore all text files

GitHub

- Webpage for online repositories
- git push - pushes local commits to remote branch
- Issues - forum for project where u can report bugs
- Pull request - request for owner of project to add others changes to project directory
- git fetch - download all history of project (not merged)
- git pull - download all history of project and merge it
- More secure
- Github PM Tools - tools for project management

GitLab

- Self hosted
- Automatic devOps

- Infrastructure automation