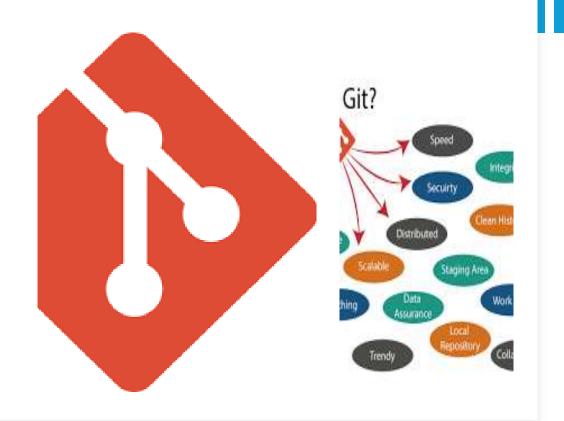
## Master Class

Computer Systems

## What is a git?

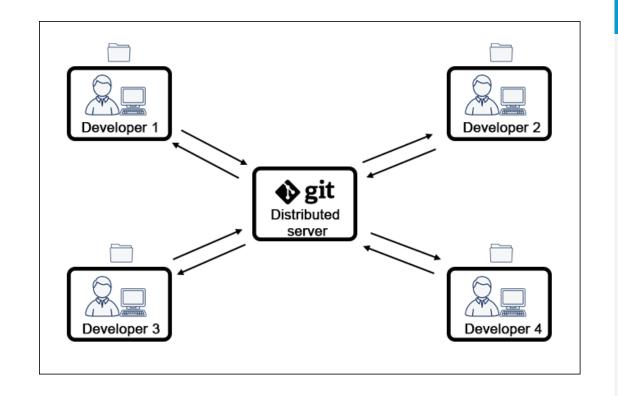
### Why you need it?

- Git is an open-source version control software. It help the software developer to manage the changes in source code files.
- Features of git such as free, distributed, security, local repository, collaboration etc.
- You can use in this course for version controlling of your assignment source files.



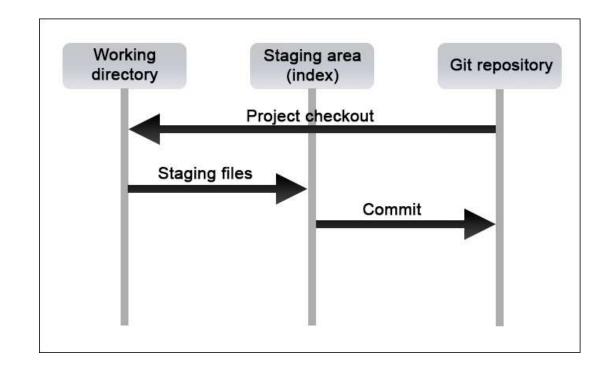
### How it works

- Install the git from this site. <a href="https://git-scm.com/">https://git-scm.com/</a> or sign up github <a href="https://education.github.co">https://education.github.co</a> m/
- Use git using the command prompt window or terminal or graphical user interface.
- Configure the git according to your computer OS.



## How it works

- A Git project resides in three sections:
- The working directory
- The staging area
- The Git repository



# Difference of Git and Github

### • Git

- It is a software
- It is installed locally on the system
- It is a command line tool
- It is tool to manage different versions of edits, made files in a git repository
- It provides functionalities like version control system source code management

# Difference of Git and Github

- GitHub
  - It is service
  - It is hosted on web
  - It provides a graphical interface
  - It is space to upload a copy of the Git repository
  - It provides functionalities of Git like VCS, source code management as well as adding few of its own features

### Exercise

- Create a account on github <a href="https://education.github.co">https://education.github.co</a> m/
- Install the git on computer and configure it.
- Follow the instruction using the course document.
- compSys-e2023pub/tools/masterclass/git\_exercises.md
  at main · diku-compSys/compSys-e2023pub (github.com)

#### Common Git Commands - Sgit config - Soit init - Suit close <path> - Sgit add offile names - Sgit counit - Spit status - Sgit remote - Sgit checkeut chranch names - suit branch - suit push - suit pull - \$git merge «branch\_name» - spit diff - Suit reset - Suit revert - Spit tag - Spit leg