Web Application Development (LTAT.05.004)

GIT & GITHUB

UNIVERSITY OF TARTU

GIT

https://git-scm.com/

What is GIT?

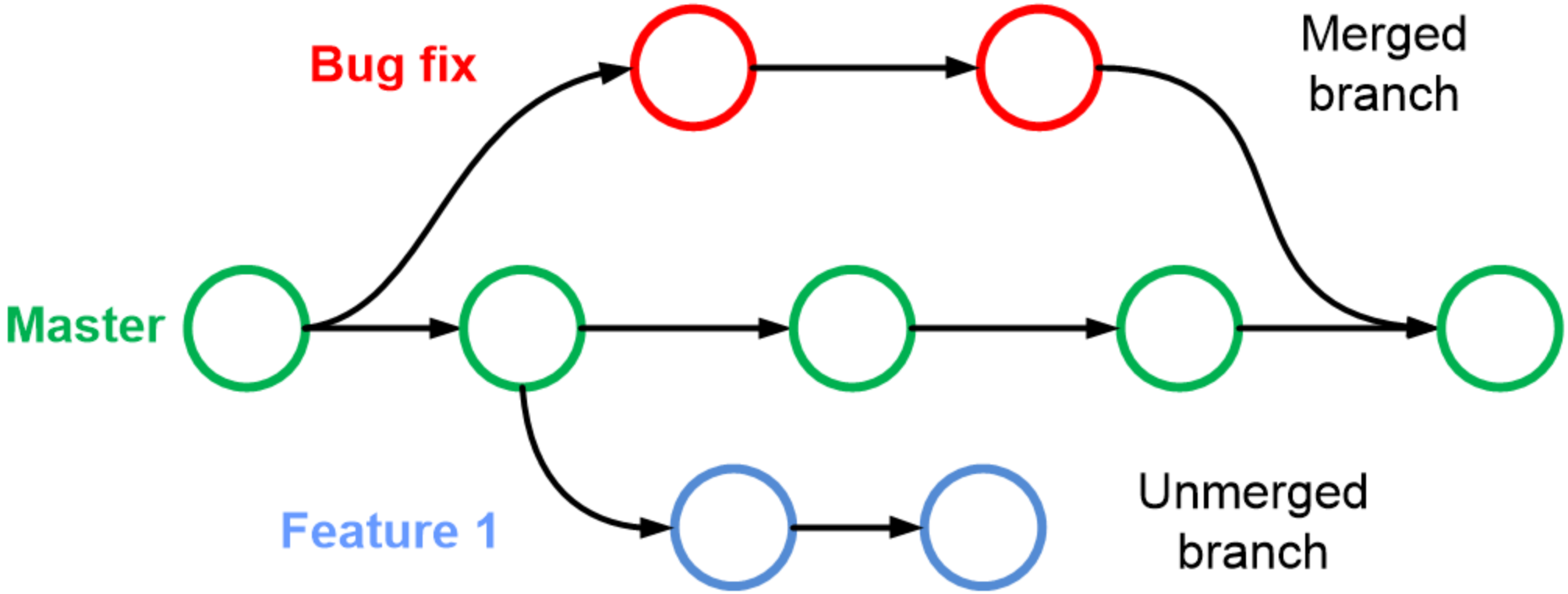
GIT (Global Information Tracker) is a free and open source Version Control System (VCS) that allows you to manage and keep track of your code history.

- It is **NOT** GITHUB, you can use GIT without GITHUB.

Why you must learn GIT?

- It allows developers to contribute to the same project.
- It allows seeing and reverting changes.
- It allows solving conflicts

GIT Branching



Git branches are a pointer to a snapshot of changes. When you want to add a new feature or fix a bug, you can create a new branch to encapsulate your changes

GITHUB

What is GITHUB?

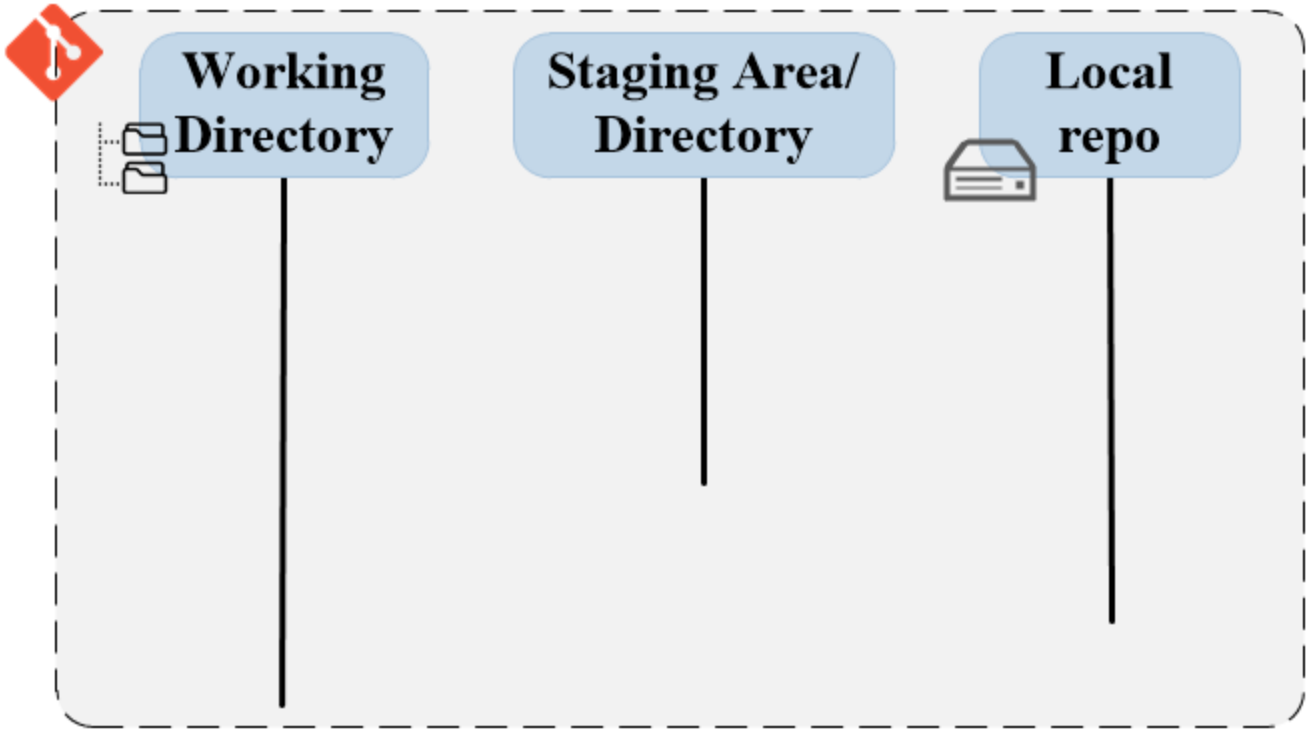
GITHUB is a cloud-based [source code] hosting service that allows you to manage GIT repositories.

https://github.com/

Why you must learn GIT

- Hosting repositories on Github facilitates the sharing of code among teams by providing a GUI to easily fork or clone repos to a local machine.
- Helps you to create your **own developer portfolio**.

GIT

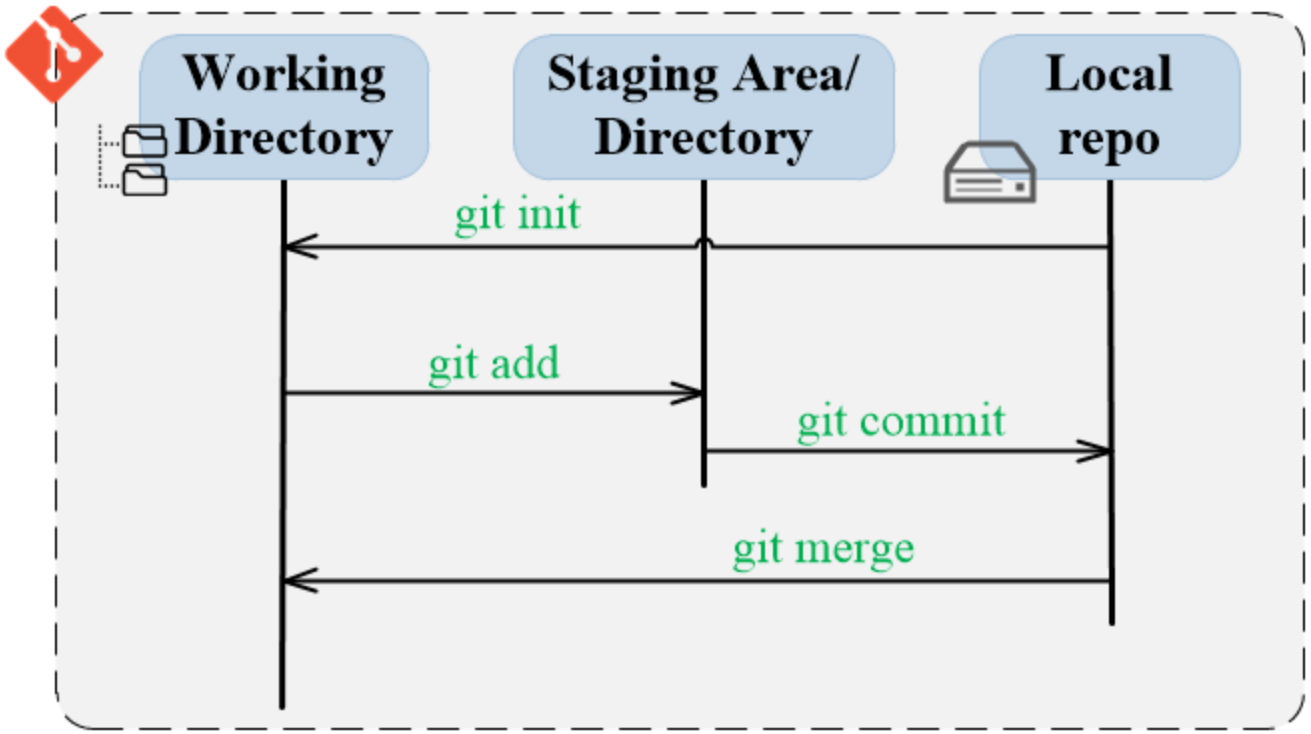


A working directory is just a project folder, it is **NOT** a repo.

A staging area can be described as a preview of your next commit.

A Repository contains the collection of files and the history of changes made to them.

GIT



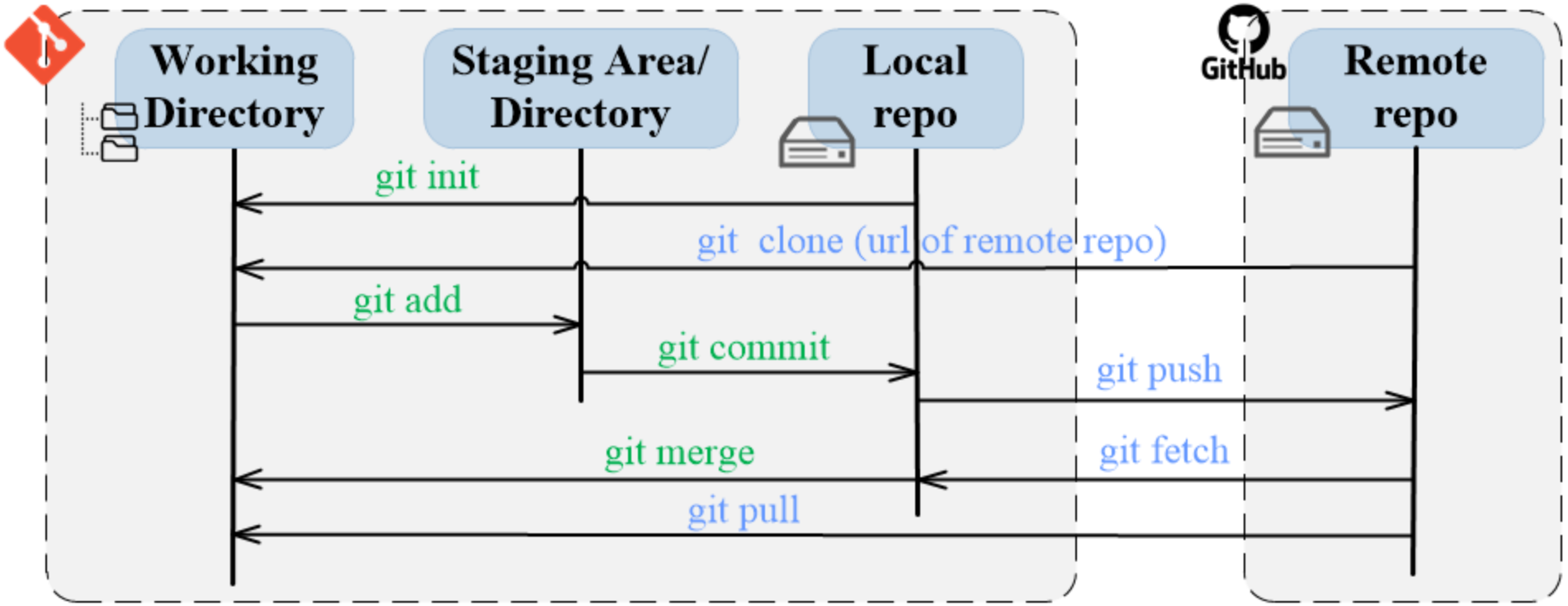
git init creates a new blank repository.

git add command adds file to the staging area.

git commit saves any change **added to the staging area** to the local repo.

git merge joins two or more development histories together.

GIT



git push command uploads local repo content to a remote repo.

git pull command (fetch + merge) fetches content from a remote repo and immediately update the local repo.

git clone command creates a copy of an existing repository.

Essential GIT commands

Command	Description
git status	shows the status of changes as untracked, modified, or staged.
git init	initializes a brand new Git repo and begins tracking an existing directory.
git clone	creates a local copy of a project that is already exists remotely.
git add	adds file contents to the staging area.
git commit	saves the snapshot to the project history.
git push	updates the remote repository with any commits made locally.
git pull	updates the local line of development with updates from its remote repo .
git fetch	downloads commits, files, and refs from a remote repo into local repo.
git merge	merges lines of development together.
git help	display help information, if –all/-a is given, all commands are displayed.

Complete list of GIT commands https://git-scm.com/docs

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Thank You
for your attention

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