

GitHub - Research

**The aim of the research is to get acquainted
with Git and GitHub**

What is git?

It is version control system, that keeps track of changes in source code during software development.

What is github?

It is a platform that allows
developers to create, store and
manage their code.

It uses git.

What is the difference between Git and GitHub?

- Git is a software.
- It is installed locally.
- Github is a service that hosts git repositories.
- It is web based.

What are the advantages of using Git locally?

You can create commits, work with different versions of a file, create branches, merges, all without an internet connection.

What are the advantages of using GitHub? Both when working alone and when working as a team?

- Keeping track of any code changes you have made.
- Using branches to work on and test different features for your app.
- Having all the projects you have done stored safely as repositories.
- Collaborating with other developers / team members.
- It provides access control.
- Enables easier team management.

What are Git branches?

They are new separate versions of the main repository on which you are working.

What are branches generally used for? How are they of benefit when utilised?

- Git branches allow developers to work on different parts of a project without impacting the main branch.
- Git branches can help developers to create new features, experiment with new ideas and fix bugs.

What are the most common Git commands?

- git clone
- git add
- git status
- git commit
- git push

What is to fork in terms of GitHub?

To fork is to create an
independent copy of a repository.

What is a pull request?

It is a proposal to merge changes made in one branch into another. It notifies team members of a completed feature.

What are the different ways of protecting the project code's stability?

- **How do you make sure other people don't override working features with bad code when working as a team?** By requiring pull request reviews, status checks, signed commits.
- **How do you protect your public code from being messed up by someone who forked your code and wants to merge it back with your repo?** You reject the person's pull request and add branch protection rule.

What other alternatives are there to GitHub?

- Gitlab
- Bitbucket
- Onedev
- Gogs
- Codeberg
- SourceForge
- GitKraken
- AWS CodeCommit