

# Git Glossary

## General

### git

An open-source file versioning system

### GitHub

A website for hosting and managing git repositories

## Branches

### Branch

An alternative version of the git repository

### Checkout

Switch to a different branch. Updates all the files to match their versions in the selected branch

### Merge

Transfer the changes made in one branch to another branch.

### Merge conflict

When the two branches in a merge have conflicting changes. The conflicts must be resolved by choosing one of the versions before completing the merge.

### Pull request (or PR)

Request to merge a branch into another branch. Must be reviewed and approved by an admin of the GitHub repository.

## File Management

### Stage (or Add)

Add a new or edited file to the git index, to be included in the next commit

### Commit

Add one or several staged files to the git history. Commits are identified by a unique hash and a commit message, which describes what changes were made.

## Online syncing

### Push

Send local git changes to an online repository (e.g. GitHub)

### Pull

Synchronise the local git repository with an online repository

### Fetch

Retrieve the latest file history from an online repository, without syncing the files

### Clone

Create a local copy of an online repository

### Fork

Create an independent copy of an existing online repository

## Repository files

### Readme

A general description of the repository, including its purpose, how to use the code, and who the authors are (with contact information). Written in markdown format.

### .gitignore

A list of files that should *not* be tracked by git. Use wildcards (\*) to match patterns, e.g. \*.Rproj

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