

# 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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