Basic Git commands

Git once had a reputation for a steep learning curve. However the Git maintainers have been steadily releasing new improvements like sensible defaults and contextual help messages that have made the on-boarding process a lot more pleasant.

Atlassian offers a comprehensive series of self-paced [Git tutorials](https://www.atlassian.com/git/tutorials), as well as webinars and live training sessions. Together, these should provide all the training options your team needs to get started with Git. To get you started, here are a list of some basic Git commands to get you going with Git:

| **Git task** | **Notes** | **Git commands** |
| --- | --- | --- |
| [Tell Git who you are](https://www.atlassian.com/git/tutorials/setting-up-a-repository/git-config) | Configure the author name and email address to be used with your commits.Note that Git strips some characters (for example trailing periods) from user.name. | git config --global user.name "Sam Smith" git config --global user.email sam@example.com |
| [Create a new local repository](https://www.atlassian.com/git/tutorials/setting-up-a-repository/git-init) |  | git init |
| [Check out a repository](https://www.atlassian.com/git/tutorials/setting-up-a-repository/git-clone) | Create a working copy of a local repository: | git clone /path/to/repository |
|  | For a remote server, use: | git clone username@host:/path/to/repository |
| [Add files](https://www.atlassian.com/git/tutorials/saving-changes/git-add) | Add one or more files to staging (index): | git add <filename>git add \* |
| [Commit](https://www.atlassian.com/git/tutorials/saving-changes/git-commit) | Commit changes to head (but not yet to the remote repository): | git commit -m "Commit message" |
|  | Commit any files you've added with git add, and also commit any files you've changed since then: | git commit -a |
| [Push](https://www.atlassian.com/git/tutorials/syncing/git-push) | Send changes to the master branch of your remote repository: | git push origin master |
| [Status](https://www.atlassian.com/git/tutorials/inspecting-a-repository/git-status) | List the files you've changed and those you still need to add or commit: | git status |
| [Connect to a remote repository](https://www.atlassian.com/git/tutorials/syncing/git-remote) | If you haven't connected your local repository to a remote server, add the server to be able to push to it: | git remote add origin <server> |
|  | List all currently configured remote repositories: | git remote -v |
| [Branches](https://www.atlassian.com/git/tutorials/using-branches) | Create a new branch and switch to it: | git checkout -b <branchname> |
|  | Switch from one branch to another: | git checkout <branchname> |
|  | List all the branches in your repo, and also tell you what branch you're currently in: | git branch |
|  | Delete the feature branch: | git branch -d <branchname> |
|  | Push the branch to your remote repository, so others can use it: | git push origin <branchname> |
|  | Push all branches to your remote repository: | git push --all origin |
|  | Delete a branch on your remote repository: | git push origin :<branchname> |
| [Update from the remote repository](https://www.atlassian.com/git/tutorials/syncing/git-pull) | Fetch and merge changes on the remote server to your working directory: | git pull |
|  | To merge a different branch into your active branch: | git merge <branchname> |
|  | View all the merge conflicts:View the conflicts against the base file:Preview changes, before merging: | git diff git diff --base <filename> git diff <sourcebranch> <targetbranch> |
|  | After you have manually resolved any conflicts, you mark the changed file: | git add <filename> |
| Tags | You can use tagging to mark a significant changeset, such as a release: | git tag 1.0.0 <commitID> |
|  | CommitId is the leading characters of the changeset ID, up to 10, but must be unique. Get the ID using: | git log |
|  | Push all tags to remote repository: | git push --tags origin |
| [Undo local changes](https://www.atlassian.com/git/tutorials/undoing-changes) | If you mess up, you can replace the changes in your working tree with the last content in head:Changes already added to the index, as well as new files, will be kept. | git checkout -- <filename> |
|  | Instead, to drop all your local changes and commits, fetch the latest history from the server and point your local master branch at it, do this: | git fetch origin git reset --hard origin/master |
| Search | Search the working directory for foo(): | git grep "foo()" |