**Git Guide**

**By Yuliia Antonova**

Git init - git init command creates a new Git repository. It can be used to convert an existing, unversioned project to a Git repository or initialize a new, empty repository.

A screen shot of a computer program

Description automatically generated

Git rm

Git rm to remove file(s) from the staging area.

Format git rm filename

Can use wildcards and -r for recursive

Use -- cached to remove from staging area

Use -f to use on working directory

A screenshot of a computer program

Description automatically generated

Git status - The git status command displays the state of the working directory and the staging area. It lets you see which changes have been staged, which haven't, and which files aren't being tracked by Git. Status output does not show you any information regarding the committed project history.

A screen shot of a computer program

Description automatically generated

Git push - The git push command is used to upload local repository content to a remote repository. Pushing is how you transfer commits from your local repository to a remote repo. It's the counterpart to [git fetch](https://www.atlassian.com/git/tutorials/syncing/git-fetch), but whereas fetching imports commits to local branches, pushing exports commits to remote branches. Remote branches are configured using the [git remote](https://www.atlassian.com/git/tutorials/syncing) command. Pushing has the potential to overwrite changes, caution should be taken when pushing. These issues are discussed below.

A computer screen shot of a computer screen

Description automatically generated

Git clone - git clone is primarily used to point to an existing repo and make a clone or copy of that repo at in a new directory, at another location. The original repository can be located on the local filesystem or on remote machine accessible supported protocols. The git clone command copies an existing Git repository.

A screenshot of a computer screen

Description automatically generated

Git branch - Users can create a new branch in Git by running the 'git checkout -b my-branch-name' command, where 'my-branch-name' can be replaced with the desired name. To switch between local branches, the 'git checkout my-branch-name' command is used.

A screenshot of a computer

Description automatically generated

Git checkout - The git checkout command lets you navigate between the branches created by git branch . Checking out a branch updates the files in the working directory to match the version stored in that branch, and it tells Git to record all new commits on that branch.

A screen shot of a computer

Description automatically generated

Git merge - The git merge command lets you take the independent lines of development created by git branch and integrate them into a single branch. Note that all of the commands presented below merge into the current branch.

A screen shot of a computer

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Git log - The git log command displays committed snapshots. It lets you list the project history, filter it, and search for specific changes. While git status lets you inspect the working directory and the staging area, git log only operates on the committed history.

A screenshot of a computer screen

Description automatically generated

Git add - Git add is a command that allows you to stage individual files, or all files in the project directory at once, preparing them to be staged. Git add is one of the most important and fundamental commands in Git, and there are many ways to use it.

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