

Git Cheat Sheet

1. Git configuration

○ Git config

Get and set configuration variables that control all facets of how Git looks and operates.

Set the name:

```
$ git config --global user.name "User name"
```

Set the email:

```
$ git config --global user.email "fathimak2020@gmail.com"
```

Set the default editor:

```
$ git config --global core.editor Vim
```

Check the setting:

```
$ git config -list
```

○ Git alias

Set up an alias for each command:

```
$ git config --global alias.co checkout
```

```
$ git config --global alias.br branch
```

```
$ git config --global alias.ci commit
```

```
$ git config --global alias.st status
```

2. Starting a project

○ Git init

Create a local repository:

```
$ git init
```

○ Git clone

Make a local copy of the server repository.

```
$ git clone
```

3. Local changes

○ Git add

Add a file to staging (Index) area:

```
$ git add Filename
```

Add all files of a repo to staging (Index) area:

```
$ git add*
```

- **Git commit**

Record or snapshots the file permanently in the version history **with a message**.

```
$ git commit -m "Commit Message"
```

4. Track changes

- **Git diff**

Track the changes that have not been staged: `$ git diff`

Track the changes that have staged but not committed:

```
$ git diff --staged
```

Track the changes after committing a file:

```
$ git diff HEAD
```

Track the changes between two commits:

```
$ git diff Git Diff Branches:
```

```
$ git diff < branch 2 >
```

- **Git status**

Display the state of the working directory and the staging area.

```
$ git status
```

- **Git show Shows objects:**

```
$ git show
```

5. Commit History

- **Git log**

Display the most recent commits and the status of the head:

```
$ git log
```

Display the output as one commit per line:

```
$ git log -oneline
```

Displays the files that have been modified:

```
$ git log -stat
```

Display the modified files with location:

```
$ git log -p
```

- **Git blame**

Display the modification on each line of a file:

```
$ git blame <file name>
```

6. Ignoring files

o .gitignore

Specify intentionally untracked files that Git should ignore. Create .gitignore:

```
$ touch .gitignore List the ignored files:
```

```
$ git ls-files -i --exclude-standard
```

7. Branching

o Git branch Create branch:

```
$ git branch List Branch:
```

```
$ git branch --list Delete a Branch:
```

```
$ git branch -d Delete a remote Branch:
```

```
$ git push origin -delete Rename Branch:
```

```
$ git branch -m
```

o Git checkout

Switch between branches in a repository.

Switch to a particular branch:

```
$ git checkout
```

Create a new branch and switch to it:

```
$ git checkout -b Checkout a Remote branch:
```

```
$ git checkout
```

o Git stash

Switch branches without committing the current branch. Stash current work:

```
$ git stash
```

Saving stashes with a message:

```
$ git stash save ""
```

Check the stored stashes:

```
$ git stash list
```

Re-apply the changes that you just stashed:

```
$ git stash apply
```

Track the stashes and their changes:

```
$ git stash show
```

Re-apply the previous commits:

```
$ git stash pop
```

Delete a most recent stash from the queue:

```
$ git stash drop
```

Delete all the available stashes at once:

```
$ git stash clear
```

Stash work on a separate branch:

```
$ git stash branch
```

- **Git cherry pic**

Apply the changes introduced by some existing commit:

```
$ git cherry-pick
```

8. Merging

- **Git merge**

Merge the branches:

```
$ git merge
```

Merge the specified commit to currently active branch:

```
$ git merge
```

- **Git rebase**

Apply a sequence of commits from distinct branches into a final commit.

```
$ git rebase
```

Continue the rebasing process:

```
$ git rebase --continue Abort the rebasing process:
```

```
$ git rebase --skip
```

- **Git interactive rebase**

Allow various operations like edit, rewrite, reorder, and more on existing commits.

```
$ git rebase -i
```

9. Remote

- **Git remote**

Check the configuration of the remote server:

```
$ git remote -v
```

Add a remote for the repository:

```
$ git remote add Fetch the data from the remote server:
```

```
$ git fetch
```

Remove a remote connection from the repository:

```
$ git remote rm
```

Rename remote server:

```
$ git remote rename
```

Show additional information about a particular remote:

```
$ git remote show
```

Change remote:

```
$ git remote set-url
```

- **Git origin master**

Push data to the remote server:

```
$ git push origin master
```

Pull data from remote server:

```
$ git pull origin master
```

10. Pushing Updates

- **Git push**

Transfer the commits from your local repository to a remote server. Push data to the remote server:

```
$ git push origin master
```

Force push data:

```
$ git push -f
```

Delete a remote branch by push command:

```
$ git push origin -delete
```

11. Pulling updates

- **Git pull**

Pull the data from the server:

```
$ git pull origin master
```

Pull a remote branch:

```
$ git pull
```

- **Git fetch**

Download branches and tags from one or more repositories. Fetch the remote repository:

```
$ git fetch < repository Url >
```

Fetch a specific branch:

```
$ git fetch
```

Fetch all the branches simultaneously:

```
$ git fetch -all
```

Synchronize the local repository:

```
$ git fetch origin
```

12. Undo changes

- **Git revert**

Undo the changes:

```
$ git revert
```

Revert a particular commit:

```
$ git revert
```

- **Git reset**

Reset the changes:

```
$ git reset -hard
```

```
$ git reset -soft:
```

```
$ git reset --mixed
```

13. Removing files

- **Git rm**

Remove the files from the working tree and from the index:

```
$ git rm <file Name>
```

Remove files from the Git But keep the files in your local repository:

```
$ git rm --cached
```