

# Fundamentals of Git

## Missouri Satellite Team

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# Getting Started

There'll be some setting up before you can start using git. It'll depend on your operating system — you can refer to the installation guide [here](#). Below are the more popular methods of installation.

macOS `brew install git`<sup>1</sup>

Linux Depends on your distro. If Ubuntu use `sudo apt-get install git-all`, if Arch Linux then `pacman -S git`, if others refer [here](#).

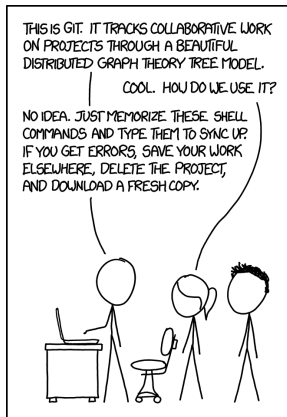
Windows Download a .exe from [here](#).

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<sup>1</sup>Or whatever hip package manager you use.

# What is Git?

- ▶ Git is nothing more than Directed Acyclic Graph of objects compressed and identified by an SHA-1 hash.
- ▶ Git works in snapshots, not differences.
- ▶ Git is local.
- ▶ Git has data integrity.
- ▶ Git is parallelizable.



# The Five Stages of Git

1. Working Directory
2. Staging Area
3. Git Directory
4. ...
5. Profit

# Gitting Good

If the “stages” didn’t make sense, that’s alright. It’s better to go through a workflow as apposed to the formalities.

1. Start a new repository with `git init`
2. Work on project in bite sized chunks, and add files that were changed with `git add file(s)`
3. Commit your changes with `git commit`
4. Optionally, `git push` to save changes to the remote branch
5. Of course, profit.

# Demo