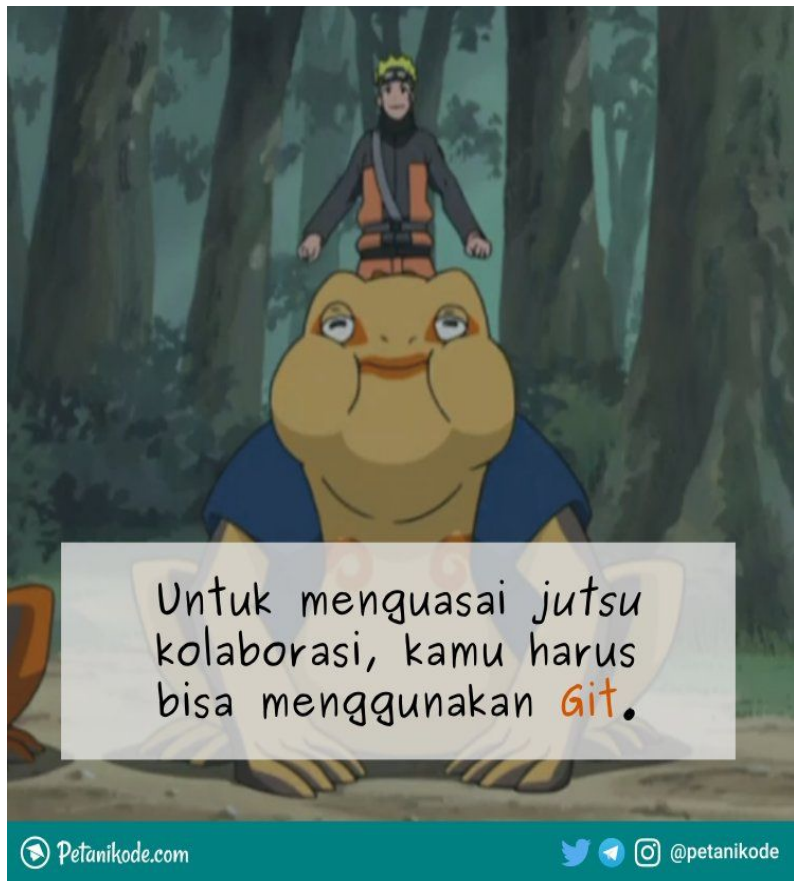


Git Introduction

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Batam, July 2019



Git Introduction | vcs

Version control systems are a category of software tools that help a software team manage changes to source code over time.

**HIDUPLAH SEPERTI
FLASHDISK**



**TIDAK PERNAH MARAH
MESKI SELALU DIEJEK**

Before..



final.doc



final-revisi.doc



final-revisi-lagi.doc

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final-revisi
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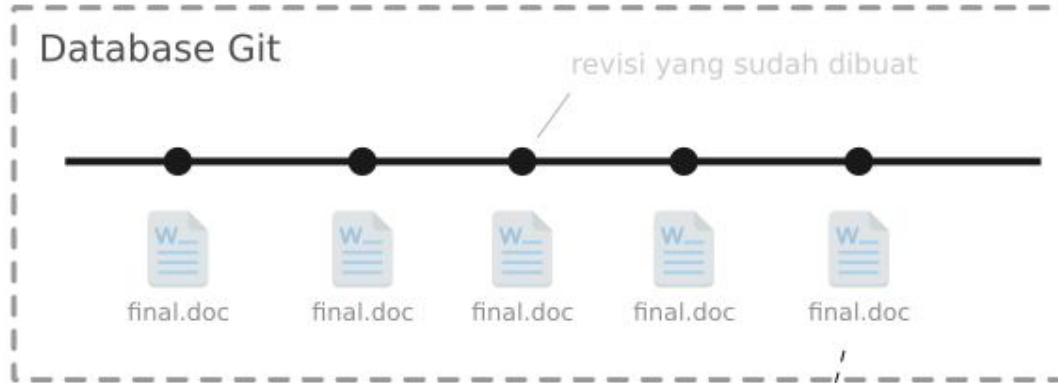


final-revisi
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lagi-lagi....doc

After..



File di proyek



final.doc

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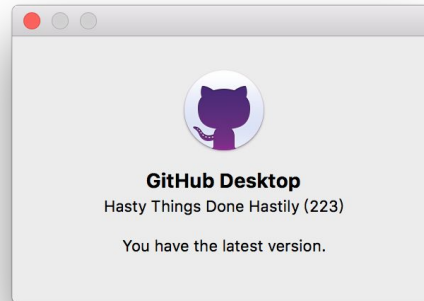
Git Introduction | Tools

1. CVS
2. Git
3. SVN (Subversion)
4. Mercurial
5. Bazaar

Git Introduction | Git Repository



Git Introduction | GUI Tools



Understanding | GIT Repository

The purpose of Git is to manage a project, or a set of files, as they change over time.

Git stores this information in a data structure called a repository.

A git **repository** contains, among other things, the following:

- A set of **commit objects**.
- A set of references to commit objects, called **heads**.
-

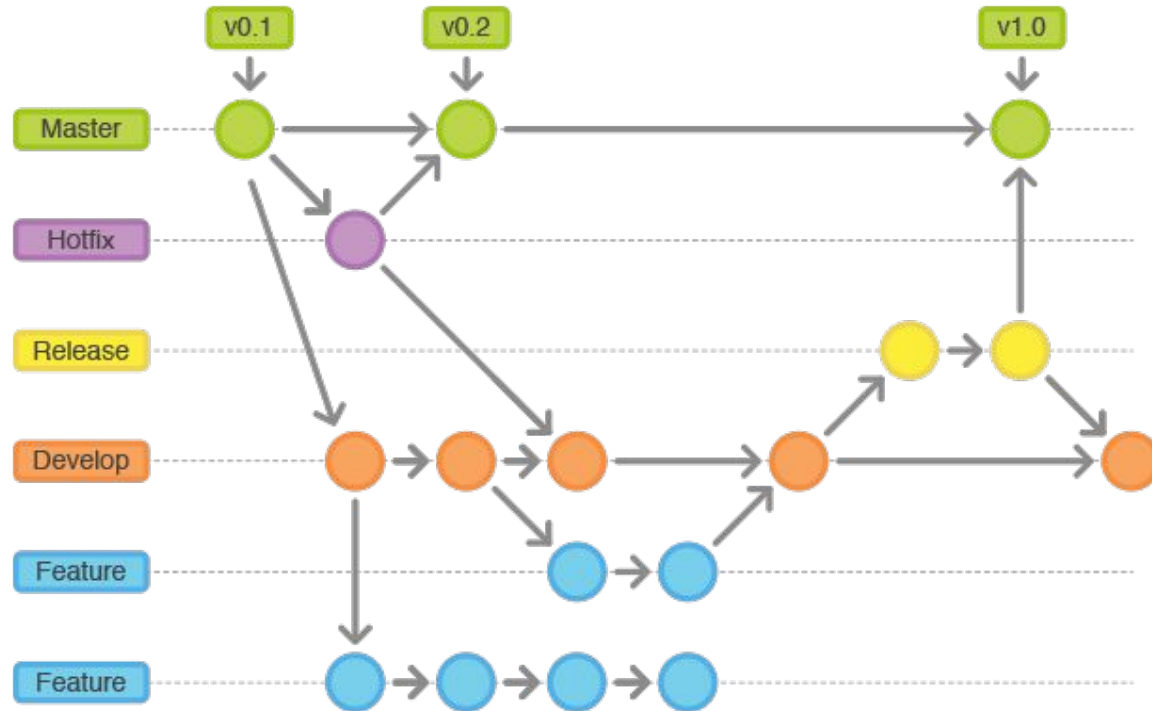
A **commit object** contains three things:

- A set of **files**, reflecting the state of a project at a given point in time.
- References to **parent commit objects**.
- An **SHA1 name**, a 40-character string that uniquely identifies the commit object. The name is composed of a hash of relevant aspects of the commit, so identical commits will always have the same name.

Understanding | Basic Command

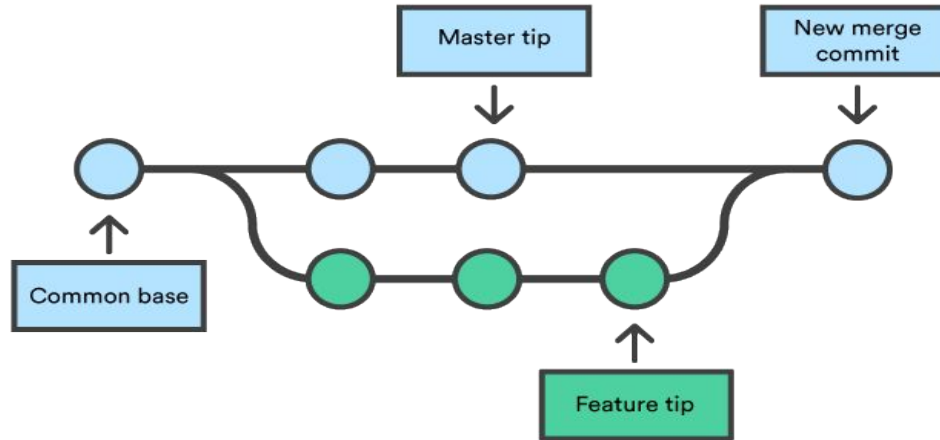
1. Clone : Clone a repository into a new directory
2. Init : Create an empty Git repository or reinitialize an existing one
3. Add : Add file contents to the index
4. Status : Show the working tree status
5. Branch : List, create, or delete branches
6. Checkout : Switch branches or restore working tree files
7. Diff : Show changes between commits, commit and working tree, etc
8. Push : Update remote refs along with associated objects
9. Pull : Fetch from and integrate with another repository or a local branch
10. Merge : Join two or more development histories together
11. Commit : Record changes to the repository

Understanding | Git Branch & Git Flow



Understanding | Git Merge

Git merge will combine multiple sequences of commits into one unified history. In the most frequent use cases, git merge is used to combine two branches.



Install GIT

Linux command: `sudo apt-get install git`

Mac : <http://git-scm.com/download/mac>

Check version : `git --version`

Configuration

Example:

```
git config --global user.name "username_gitlab"
```

```
git config --global user.email isumi@gmail.com
```

Check config:

```
git config --list
```

Setting SSH

Run on terminal:

```
cd ~/.ssh/ #pindah ke direktori ssh
```

```
ssh-keygen -o -t rsa -C "your.email@example.com" -b 4096
```

```
cat ~/.ssh/id_rsa.pub
```

```
baggrek@baggrek:~$ cat ~/.ssh/id_rsa.pub
ssh-rsa AAAAB3NzaClyc2EAAAADAQABAAQADj/ovvQi/Z+OU6fiDH2s6+QFVmm8nd7GLEKQy3pVT9Qstmvu6NHlzXY936LtPVtkw
IRLOc2E+DiNI+hLXD8B7bklOzJl+6X/zE4gW7tXYH+nHxODTK3AqI6IDjVAEKv/5uLSdPb3sEkgyyp/n2MmvgZ7i6IUtYrVjOlVGC2NU
s4QYK3P4pSEbv5KElZE08MRKw005Guw2kiIjfnq2lOOVlFfaoYSTERYhWmrtWdaPgpcxlcHxtHkSy9Y7QN06nVFKseKeUGi7c6d7lG
Mp+WcsM96kj2XptliKCX8AljoLkN0EXfgLAewWurtOKj697e20vBvWYtx7dxHSVTVDQB5ZlVJH6HWyUGFGPKBH85BaveGQkSODntXcP
FWeapKycOkvt3MC2eSyn9XAViEEaIT0bb+6saCEXmY5B3dGsDUnmldC/hX96OFNlcla4U2FLqg2tb2Bj5IEeay/nkhVuXDouuqI5Rb6
4l6uLneI2ezhIZIKSnIWTiJzBbdvxxFdjcrpam8Zzzjj+j8lxG7ASAlloipie0f2e7PcrlbfSP9YgY/Tc0hLlVOvhHWi8n/ckgF9R6/xi
Tkc9Zv+LA5f/oUhdnjav8cvKiYPBMP2hf8zkChlLbwgGn27TEANsXPcDIXKtlSsfq4Qxw+uJF1Ch78/+Elkqg9oLVvImEjK2M3220jl
w== baggrek@example.com
```

Copy-paste output to ssh key on setting akun Gitlab

Testing SSH:

```
ssh -T git@gitlab.com
```

Coding bareng

How to Push

//sebelum push pastikan dulu kamu ada di branch yg mau kamu push (misalnya pastikan ada di Week1: **git checkout Week1**) dan jangan lupa lakukan **git pull** dulu (**git pull origin Week1**) biar local repo di laptop kalian terupdate

- git add .
- git commit -m "Tugas HTML"
- git push origin Week1

//kalau mau pindah branch misal dari master ke Week1

- git checkout Week1

Referensi

1. [Version Control Tools](#)
2. [About Git](#)
3. [Git Gui Tools](#)
4. [VCS Tools](#)
5. [Udacity Git Course](#)
6. [Egghead Git](#)
7. [Git Cheat Sheet](#)