

BASIC COMMAND

Note :

Git adalah salah satu *tool* yang sering digunakan dalam proyek pengembangan software.

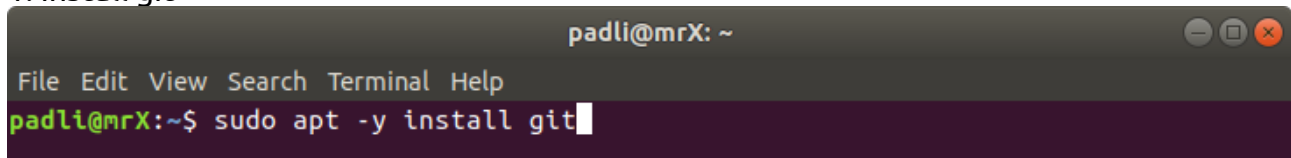
Git bahkan menjadi *tool* yang wajib dipahami oleh programmer, karena banyak digunakan di mana-mana.

Git adalah salah satu sistem pengontrol versi (*Version Control System*) pada proyek perangkat lunak yang diciptakan oleh Linus Torvalds.

Pengontrol versi bertugas mencatat setiap perubahan pada file proyek yang dikerjakan oleh banyak orang maupun sendiri.

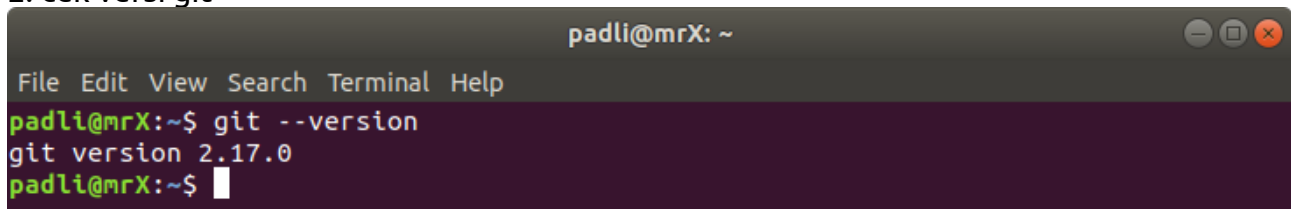
Git dikenal juga dengan *distributed revision control* (VCS terdistribusi), artinya penyimpanan database Git tidak hanya berada dalam satu tempat saja.

1. install git



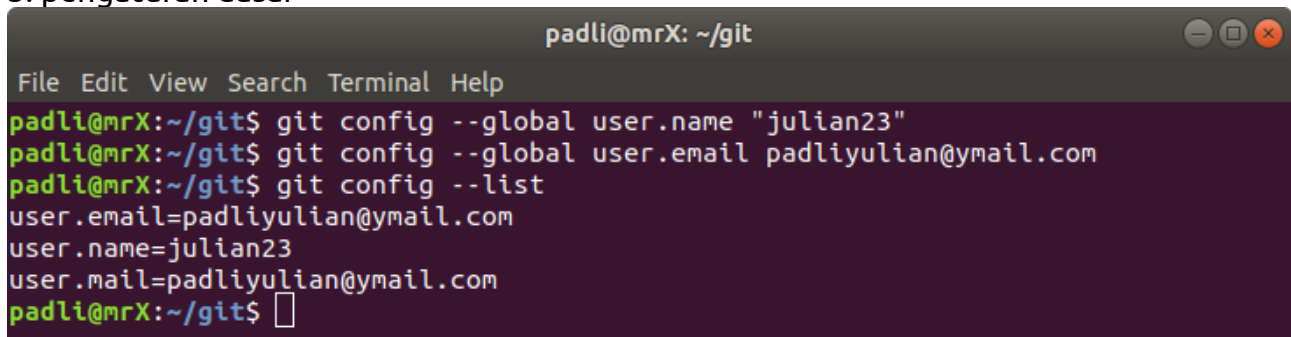
```
padli@mrX: ~  
File Edit View Search Terminal Help  
padli@mrX:~$ sudo apt -y install git
```

2. cek versi git



```
padli@mrX: ~  
File Edit View Search Terminal Help  
padli@mrX:~$ git --version  
git version 2.17.0  
padli@mrX:~$
```

3. pengaturan dasar



```
padli@mrX: ~/git  
File Edit View Search Terminal Help  
padli@mrX:~/git$ git config --global user.name "julian23"  
padli@mrX:~/git$ git config --global user.email padliyulian@ymail.com  
padli@mrX:~/git$ git config --list  
user.email=padliyulian@ymail.com  
user.name=julian23  
user.mail=padliyulian@ymail.com  
padli@mrX:~/git$
```

4. membuat repository default git

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ git init
Initialized empty Git repository in /home/padli/git/.git/
padli@mrX:~/git$ ls -al
total 12
drwxr-xr-x  3 padli padli 4096 Mei 19 08:57 .
drwxr-xr-x 28 padli padli 4096 Mei 19 08:56 ..
drwxr-xr-x  7 padli padli 4096 Mei 19 08:57 .git
padli@mrX:~/git$
```

6. buat file .gitignore dan masukkan nama file yg akan diabaikan saat proses push repo

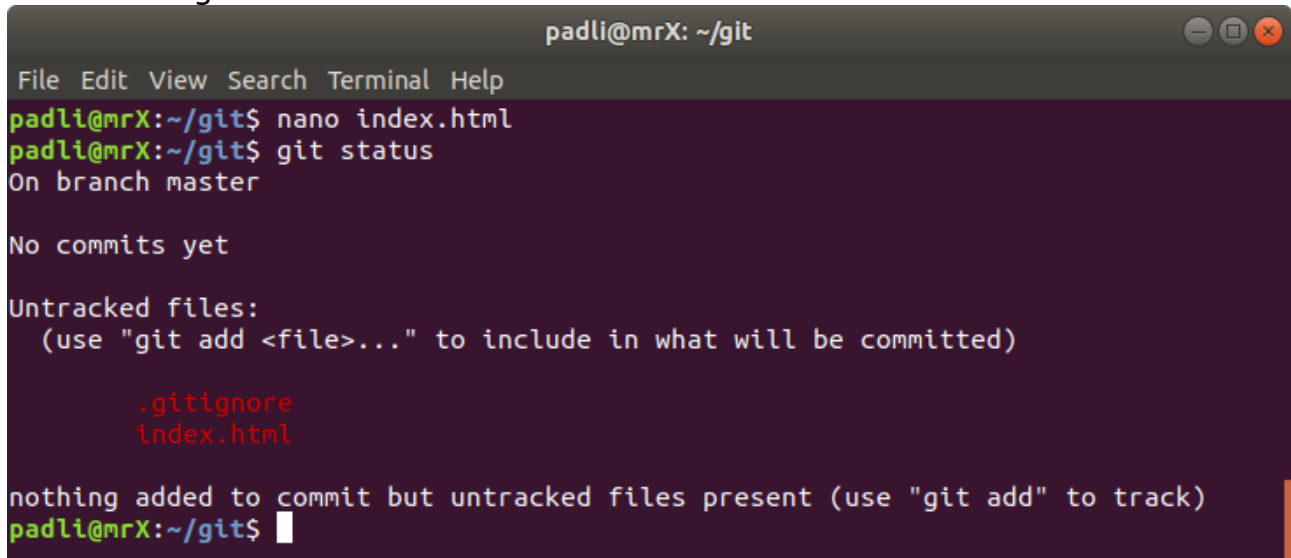
```
padli@mrX: ~/git
File Edit View Search Terminal Help
GNU nano 2.9.3 .gitignore Modified
rahasia.txt
```

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ nano .gitignore
padli@mrX:~/git$ nano rahasia.txt
padli@mrX:~/git$ ls -al
total 20
drwxr-xr-x  3 padli padli 4096 Mei 19 09:03 .
drwxr-xr-x 28 padli padli 4096 Mei 19 08:56 ..
drwxr-xr-x  7 padli padli 4096 Mei 19 08:57 .git
-rw-r--r--  1 padli padli   12 Mei 19 09:02 .gitignore
-rw-r--r--  1 padli padli    4 Mei 19 09:03 rahasia.txt
padli@mrX:~/git$
```

7. buat file index.html

```
padli@mrX: ~/git
File Edit View Search Terminal Help
GNU nano 2.9.3 index.html Modified
<html>
<head>
  <title>belajar git</title>
</head>
<body>
  <h1>Menu Makanan</h1>
</body>
</html>
```

8. cek status git

A terminal window titled 'padli@mrX: ~/git' with a menu bar (File, Edit, View, Search, Terminal, Help). The user has executed 'nano index.html' and 'git status'. The output shows the user is on the master branch with no commits yet. It lists untracked files: '.gitignore' and 'index.html'. A message states: 'nothing added to commit but untracked files present (use "git add" to track)'. The prompt is 'padli@mrX:~/git\$' with a cursor.

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ nano index.html
padli@mrX:~/git$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        .gitignore
        index.html

nothing added to commit but untracked files present (use "git add" to track)
padli@mrX:~/git$
```

Tiga Kelompok Kondisi File dalam Git

1. Modified

Modified adalah kondisi dimana revisi atau perubahan sudah dilakukan, tetapi belum ditandai dan belum disimpan di *version control*. Contohnya pada gambar di atas, ada tiga file HTML yang dalam kondisi *modified*.

2. Staged

Staged adalah kondisi dimana revisi sudah ditandai, tetapi belum disimpan di *version control*. Untuk mengubah kondisi file dari *modified* ke *staged* gunakan perintah `git add nama_file`.

3. Committed

Committed adalah kondisi dimana revisi sudah disimpan di *version control*. perintah untuk mengubah kondisi file dari *staged* ke *committed* adalah `git commit`.

9. tambahkan file index.html agar menjadi posisi staged

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ git add index.html
padli@mrX:~/git$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

        new file:   index.html

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        .gitignore

padli@mrX:~/git$
```

10. commit file index

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ git commit -m "commit ke1" index.html
[master (root-commit) eb00458] commit ke1
 1 file changed, 8 insertions(+)
 create mode 100644 index.html
padli@mrX:~/git$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        .gitignore

nothing added to commit but untracked files present (use "git add" to track)
padli@mrX:~/git$
```

11. cek git log

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ git log
commit eb0045852c9b77d5a03ed733e02d2736183fb27b (HEAD -> master)
Author: julian23 <padliyulian@gmail.com>
Date: Sat May 19 09:07:57 2018 +0700

    commit ke1
padli@mrX:~/git$
```

12. lakukan perubahan pada file index

```
padli@mrX: ~/git
File Edit View Search Terminal Help
GNU nano 2.9.3 index.html Modified

<html>
<head>
  <title>belajar git</title>
</head>
<body>
  <h1>Menu Makanan</h1>
  <p>1. Ayam Bakar</p>
</body>
</html>
```

13. lalu staged dan commit file index

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ git add index.html
padli@mrX:~/git$ git status
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        modified:   index.html

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        .gitignore

padli@mrX:~/git$ git commit "tambah menu ayam bakar" index.html
error: pathspec 'tambah menu ayam bakar' did not match any file(s) known to git.
padli@mrX:~/git$ git commit -m "tambah menu ayam bakar" index.html
[master 2afb838] tambah menu ayam bakar
 1 file changed, 1 insertion(+)
padli@mrX:~/git$
```

14. cek git log

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ git log
commit 2afb8387d1aa6d2b8940020ebca9b77f721f205d (HEAD -> master)
Author: julian23 <padliyulian@gmail.com>
Date: Sat May 19 09:11:18 2018 +0700

    tambah menu ayam bakar

commit eb0045852c9b77d5a03ed733e02d2736183fb27b
Author: julian23 <padliyulian@gmail.com>
Date: Sat May 19 09:07:57 2018 +0700

    commit ke1
padli@mrX:~/git$
```

15. cek perubahan file index dengan git diff

```
padli@mrX: ~/git
File Edit View Search Terminal Help
Author: julian23 <padliyulian@gmail.com>
Date: Sat May 19 09:11:18 2018 +0700

    tambah menu ayam bakar

commit eb0045852c9b77d5a03ed733e02d2736183fb27b
Author: julian23 <padliyulian@gmail.com>
Date: Sat May 19 09:07:57 2018 +0700

    commit ke1
padli@mrX:~/git$ git diff 2afb8387d1aa6d2b8940020ebca9b77f721f205d
padli@mrX:~/git$ git diff eb0045852c9b77d5a03ed733e02d2736183fb27b
diff --git a/index.html b/index.html
index 85d2964..39a91b8 100644
--- a/index.html
+++ b/index.html
@@ -4,5 +4,6 @@
 </head>
 <body>
   <h1>Menu Makanan</h1>
+  <p>1. Ayam Bakar</p>
 </body>
</html>
padli@mrX:~/git$
```

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ git log --oneline
2afb838 (HEAD -> master) tambah menu ayam bakar
eb00458 commit ke1
padli@mrX:~/git$
```

16. cek posisi branch, buat branch baru, list branch, pindah branch

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        .gitignore

nothing added to commit but untracked files present (use "git add" to track)
padli@mrX:~/git$ git branch desain
padli@mrX:~/git$ git branch
  desain
* master
padli@mrX:~/git$ git che
checkout      cherry      cherry-pick
padli@mrX:~/git$ git che
checkout      cherry      cherry-pick
padli@mrX:~/git$ git checkout desain
Switched to branch 'desain'
padli@mrX:~/git$
```

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ git status
On branch desain
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        .gitignore

nothing added to commit but untracked files present (use "git add" to track)
padli@mrX:~/git$
```

17. posisi di branch desain, buat file baru main.css

```
padli@mrX: ~/git
File Edit View Search Terminal Help
GNU nano 2.9.3      main.css      Modified
h1 {
  color: red;
}
p {
  color: yellow;
}
```

18. staging lalu commit, cek status

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ nano main.css
padli@mrX:~/git$ git add main.css
padli@mrX:~/git$ git commit -m "tambah desain css" main.css
[desain 802efa5] tambah desain css
1 file changed, 7 insertions(+)
create mode 100644 main.css
padli@mrX:~/git$ git status
On branch desain
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        .gitignore

nothing added to commit but untracked files present (use "git add" to track)
padli@mrX:~/git$
```

19. kembali ke branch master, file yg di buat di branch desain tidak ada di master

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ git checkout master
Switched to branch 'master'
padli@mrX:~/git$ ls
index.html  rahasia.txt
padli@mrX:~/git$ la
.git  .gitignore  index.html  rahasia.txt
padli@mrX:~/git$
```

20. gabungkan branch desain ke master agar file main.css pindah ke master

```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ ls
index.html  rahasia.txt
padli@mrX:~/git$ git branch
  desain
* master
padli@mrX:~/git$ git merge desain
Updating 2afb838..802efa5
Fast-forward
 main.css | 7 ++++++
1 file changed, 7 insertions(+)
create mode 100644 main.css
padli@mrX:~/git$ ls
index.html  main.css  rahasia.txt
padli@mrX:~/git$
```


21. cara hapus branch



```
padli@mrX: ~/git
File Edit View Search Terminal Help
padli@mrX:~/git$ git branch tes
padli@mrX:~/git$ git branch
  desain
* master
  tes
padli@mrX:~/git$ git branch -d tes
Deleted branch tes (was 802efa5).
padli@mrX:~/git$ git branch
  desain
* master
padli@mrX:~/git$
```

dok 19/05/2018 padliyulian@ymail.com