Selamat Datang
di
SMK TI Pelita Nusantara

Git-Source Code Management

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melakukan hal besar
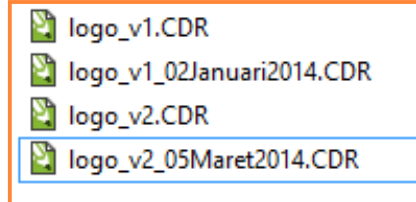

team work

Version Control

merekam setiap perubahan berkas

mengembalikan perubahan berkas sebelumnya

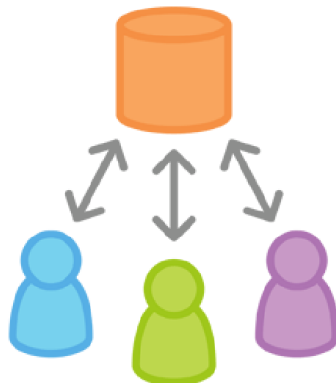membandingkan perubahan setiap saat

Mengapa Version Control ?

Bring Order to chaos

logo_v1.CDR
logo_v1_02Januari2014.CDR
logo_v2.CDR
logo_v2_05Maret2014.CDR

v1
v2_profile_baru
v3_width_800
v4_width_980
v5_dark_bg
v6_orange_bg
v7_logo_baru
v8_logo_baru_bg_kuning
v9_grid_system

tidak untuk Version Control
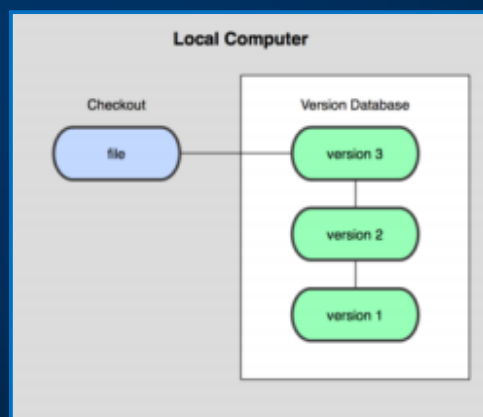
logo.CDR

Kolaborasi

Tipe Version Control System
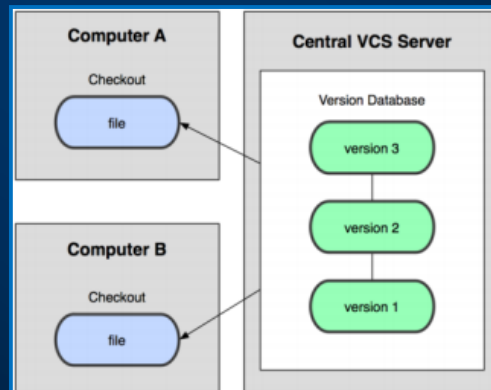
Local Version Control System

Centralized Version Control System

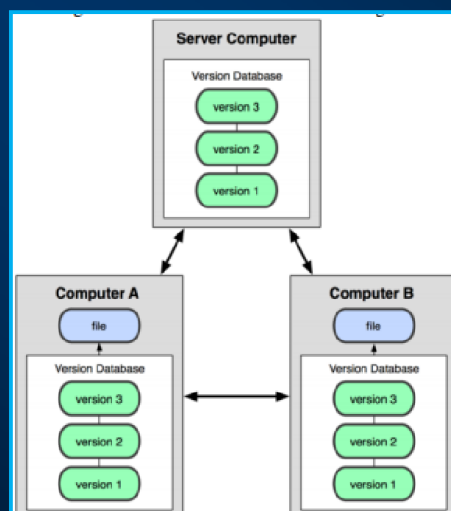Distributed Version Control System

Local Version Control System

Centralized Version Control System

Distributed Version Control System

Software Version Control

Subversion

Bazar

CVS
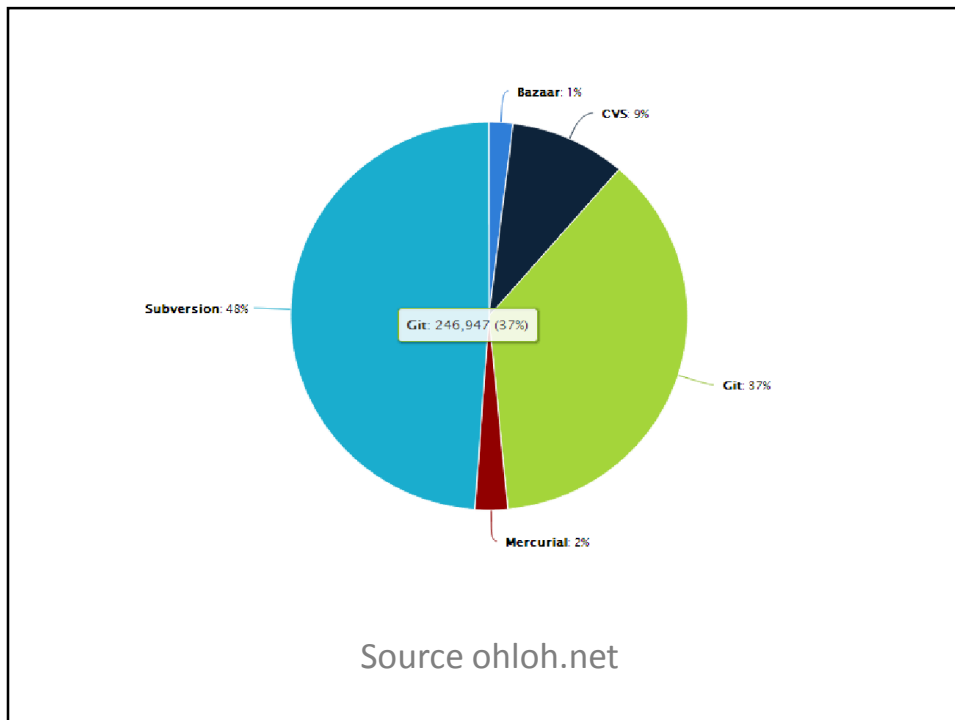
Mercurial

Git

Mengapa menggunakan Git ?

Source ohloh.net

Proyek yang menggunkan Git

Jquery

Linux Kernel

Ruby on rails

Android

PostgreSQL

OpenStack

Source : https://github.com/blog/1359-the-octoverse-in-2012

Git Workflow

working directroy	working directroy
git add files	*git checkout -- files*
staged area	staged area
git commit	*git reset -- files*
repository	repository
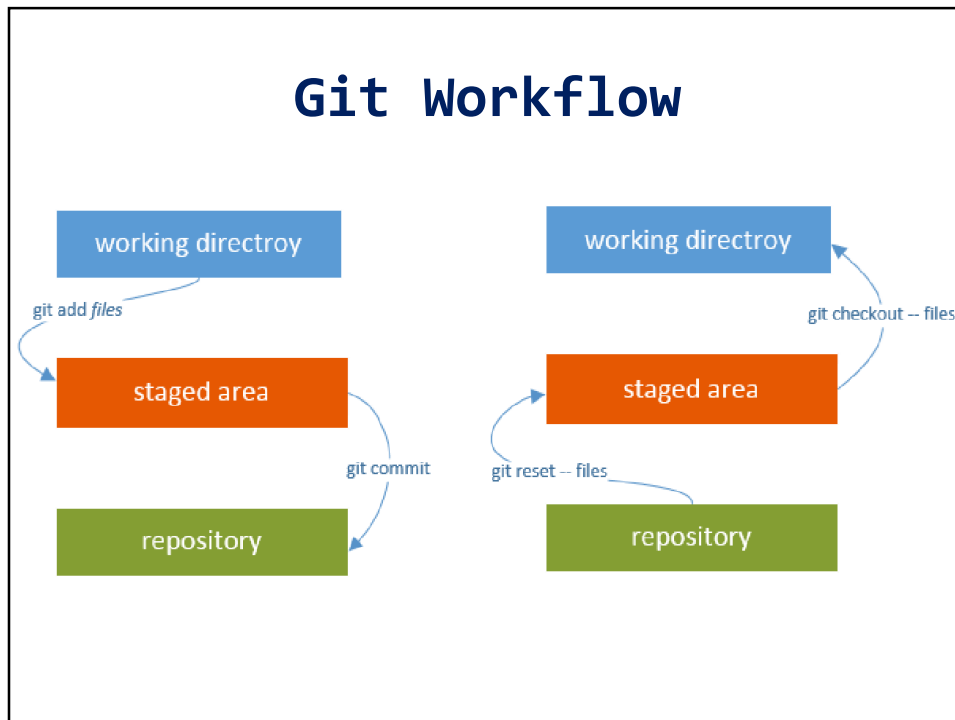
Tiga point penting workshop

Setup dan konfigurasi dasar Git

Perintah Dasar

Setup GitHub dan Kolaborasi

Git Setup

Download Git for Windows

Download Git for Linux

Modul Setup Git

Setup Git for Windows

Setup Git For Linux

Konfigurasi Git Global

Membuat file .gitconfig
```
$ touch .gitconfig
Atau
$ git config
```

Mengkonfigurasi git Global dengan perintah :
```
$ git config --global user.name "Nama Lengkap"
$ git config --global user.email "user@email.com"
```

Konfigurasi Git Global

Memeriksa hasil Konfigurasi :
```
$ cat ~/.gitconfig
```
Hasil perintah :

```
[user]
        name = Saiful Mukharom
        email = ritnesaif@gmail.com
```

Konfigurasi Git Local

Membuat direktori baru dengan perintah :
```
$ mkdir public_repo
$ cd public_repo/
```

Membuat working direktori
```
$ mkdir my_project
$ cd my_project
$ git init
```

Konfigurasi Git Local

Mengkonfigurasi Git local :
```
$ git config user.name "Nama Lengkap"
$ git config user.email "user@email.com"
```

Memeriksa hasil konfigurasi :
```
$ cat .git/config
```

```
[user]
        name = Saiful Mukharom
        email = ritnesaif@gmail.com
```

Perbedaan

Global :
~/.gitconfig

Local
~/public_repo/my_project/.git/config

Perintah Mendasar

- mkdir	- config
- cd	- init
- touch	- add
- cat	- commit
- cp	- clone
- mv	- remote
- rm	- pull
- vi	- push

Perintah Dasar Git

Membuat Working Directory :

$ git init

```
entirsaif@SAIFULINDO ~/public_repo/my_project (master)
$ git init
Initialized empty Git repository in c:/Users/entirsaif/public_repo/my_project/.g
it/

entirsaif@SAIFULINDO ~/public_repo/my_project (master)
$
```
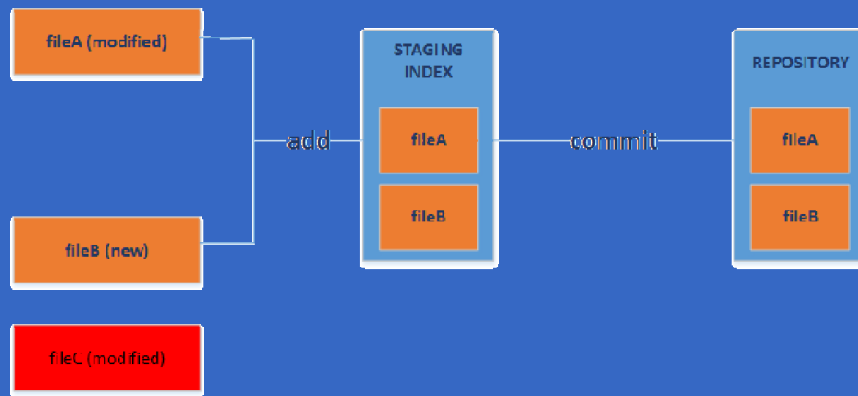
Menampilkan Informasi Repository :

$ git status

```
entirsaif@SAIFULINDO ~/public_repos (master)
$ git status
On branch master

Initial commit

nothing to commit (create/copy files and use "git add" to track)
```

add dan commit

Buat File Baru :
```
$ touch fileA.txt
```

Menambahkan ke staging index :
```
$ git add fileA.txt
```

Menampilkan informasi fileA.txt
```
$ git status
```

```
entirsaif@SAIFULINDO ~/public_repos/gitbook (master)
$ git status
On branch master

Initial commit

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

        new file:   fileA.txt
```

Untuk commit perubahan :
$ git commit –m "initial commit"

Sekarang File di commit ke HEAD
(database repositori)

```
entirsaif@SAIFULINDO ~/public_repos/gitbook (master)
$ git commit -m "initial commit"
[master (root-commit) 0a15d19] initial commit
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 fileA.txt
```

```
entirsaif@SAIFULINDO ~/public_repos/gitbook (master)
$ git status
On branch master
nothing to commit, working directory clean
```

Edit fileA.txt :
$ echo "hello file A" > fileA.txt
Tambahkan ke staging index dahulu :
$ git add fileA.txt

```
The file will have its original line endings in your working directory.
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        modified:   fileA.txt
```

Tambahkan fileA.txt ke repositori :
$ git commit –m "update file A"

Log

Menampilkan log yang sudah di commit :
$ git log

Menampilkan log dengan format ringkas :
$ git log --oneline

Untuk melihat commit log secara GUI:
$ gitk

Kolaborasi

Team Work

Maksimal empat anggota

Kolaborasi GitHub

Registrasi Akun Pribadi di https://github.com

Genarating SSH-Keygen

Buat ssh-keygen baru :

```
$ ssh-keygen -t rsa -C "alamat_email/nama_host"
```

Tempat Genereting ssh-keygen

/user/<username>/.ssh/

```
$ ls ~/.ssh
```

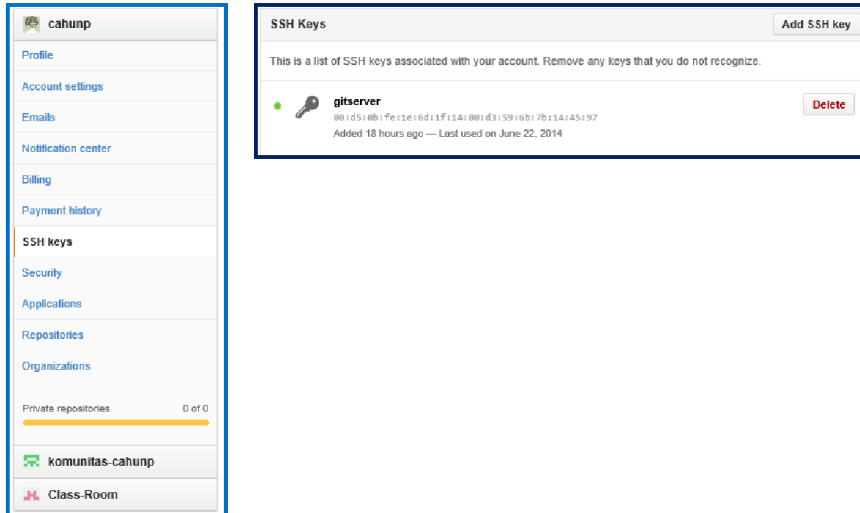## Account Setting
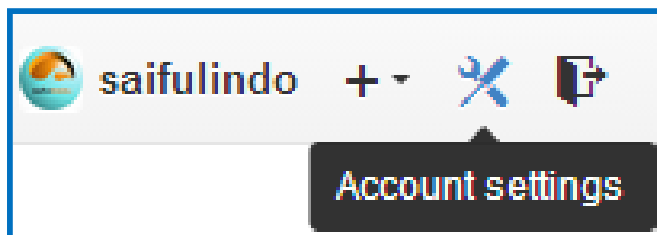
Copy id_rsa.pub

```
$ clip < ~/.ssh/id_rsa.pub
# Copies the contents of the id_rsa.pub file to your clipboard
```

Add SSH key

|	
🐱 cahunp	**SSH Keys** Add SSH key
Profile	This is a list of SSH keys associated with your account. Remove any keys that you do not recognize.
Account settings	
Emails	🔑 **gitserver** Delete
Notification center	00:d5:0b:fe:1e:6d:1f:14:00:d3:59:6b:7b:14:45:97
Billing	Added 18 hours ago — Last used on June 22, 2014
Payment history	
SSH keys	
Security	
Applications	
Repositories	
Organizations	
Private repositories 0 of 0	
🖥 komunitas-cahunp	
🎋 Class-Room	

verifikasi

```
$ ssh -T git@github.com
# Attempts to ssh to github
```
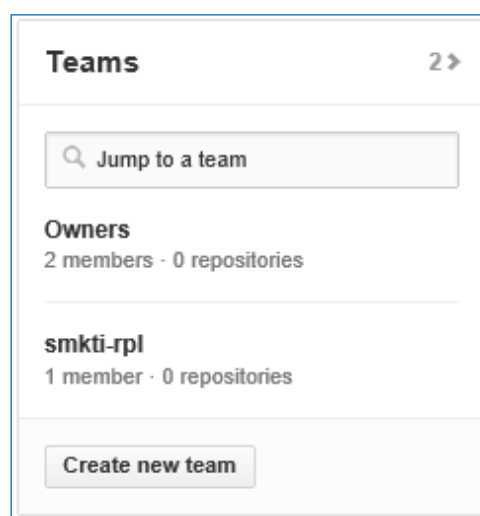
```
The authenticity of host 'github.com (207.97.227.239)' can't be established.
RSA key fingerprint is 16:27:ac:a5:76:28:2d:36:63:1b:56:4d:eb:df:a6:48.
Are you sure you want to continue connecting (yes/no)?
```

```
Hi username! You've successfully authenticated, but GitHub does not
provide shell access.
```
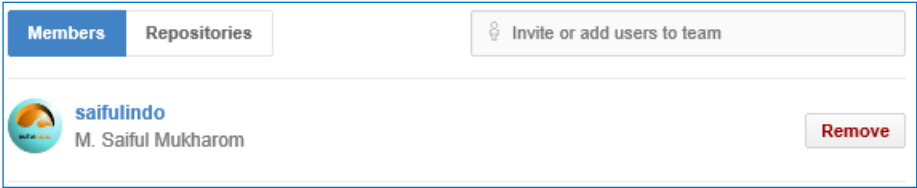
Membuat Organisasi di GitHub
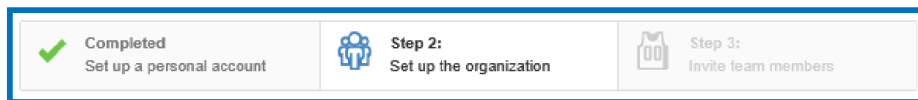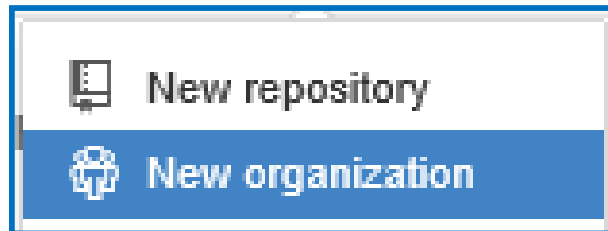
Membuat Team

Invite Membering

Members	Repositories		👤 Invite or add users to team

saifulindo
M. Saiful Mukharom

Remove

Create Project Repository

This organization has no repositories. Create one now.

+ New repository

Calculator, Luas gambar bangun, menghitung Vektor, menghitung Jarak tempuh, hukum archimedes

git@github.com:classroom-smkti/calculator.git

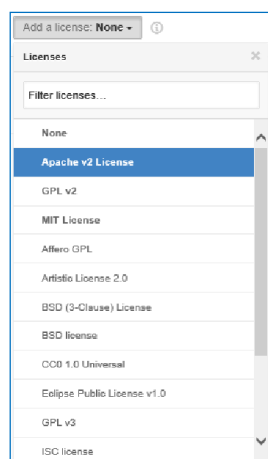# Create Jobdisk

Program
README.md
LICENSE
.gitignore

Program

calc.cpp	16/08/2014 0:55	CPP File	2 KB
calc.exe	16/08/2014 0:55	Application	981 KB
calc.o	16/08/2014 0:55	O File	6 KB

README.md

```
413 lines (309 sloc)   18.736 kb                          Raw  Blame  History

  1            Linux kernel release 3.x <http://kernel.org/>
  2
  3    These are the release notes for Linux version 3.  Read them carefully,
  4    as they tell you what this is all about, explain how to install the
  5    kernel, and what to do if something goes wrong.
  6
  7    WHAT IS LINUX?
  8
  9      Linux is a clone of the operating system Unix, written from scratch by
 10      Linus Torvalds with assistance from a loosely-knit team of hackers across
 11      the Net. It aims towards POSIX and Single UNIX Specification compliance.
 12
 13      It has all the features you would expect in a modern fully-fledged Unix,
 14      including true multitasking, virtual memory, shared libraries, demand
 15      loading, shared copy-on-write executables, proper memory management,
 16      and multistack networking including IPv4 and IPv6.
```

LICENSE

```
Add a license: None ▾   ⓘ

Licenses                                 ✕

  Filter licenses...

  None
  Apache v2 License
  GPL v2
  MIT License
  Affero GPL
  Artistic License 2.0
  BSD (3-Clause) License
  BSD license
  CC0 1.0 Universal
  Eclipse Public License v1.0
  GPL v3
  ISC license
```

25

.gitignore

```
12   .*
13   *.o
14   *.o.*
15   *.a
16   *.s
17   *.ko
18   *.so
19   *.so.dbg
20   *.mod.c
21   *.i
22   *.lst
23   *.symtypes
```

Go.. Program

Create directory calculator
Pindah ke directory calculator
Git init
Create program (sesuai jobdisk)
Git add, commit, modifikasi, add dst.
Git remote
Git pull
Git push

```
         Create directory calculator


              $ mkdir calculator
```

```
         Pindah ke directory calculator


              $ cd calculator
```

Git init

$ git init

Create program (sesuai jobdisk)
Git add, commit, modifikasi, add dst.

Create (touch), Copy file program

Git remote

$ git remote add origin git@github.com:classroom-smkti/calculator.git

$ git remote -v

Pulling

$ git pull –u origin master

Pushing

$ git push -u origin master

Selesai ...