



## Instalasi Github

Training Series No. xxx.xxx.xx

- Management and Business Analytics Concept
   Implementation in Marketing, Operation and Finance
   CRISP-DM
  - Descriptive vs Predictive vs Perscriptive Analytic
    - Technology Landscape
    - Introduction to github
    - Roles in in Data World



- 1. Install git and create github account
- 2. What is git?
- 3. How does git work?
- 4. What is GitHub
- 5. Quick hands on using git and GitHub



# Get your installer!

Linux (Debian) - Command: sudo apt-get install git

Linux (Fedora) - Command: sudo yum install git

Mac - <a href="http://git-scm.com/download/mac">http://git-scm.com/download/mac</a>

Windows - <a href="http://git-scm.com/download/win">http://git-scm.com/download/win</a>



















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#### About

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Logos

#### Community

The entire Pro Git book written by Scott Chacon and Ben Straub is available to read online for free. Dead tree versions are available on Amazon.com.

# Downloading Git



## Your download is starting...

You are downloading version 2.20.1 of Git for the Mac platform. This is the most recent maintained build for this platform. It was released about 1 month ago, on 2019-01-05.

If your download hasn't started, click here to download manually.

The current source code release is version 2.20.1. If you want the newer version, you can build it from the source code.

#### Now What?

Now that you have downloaded Git, it's time to start using it.

# git --distributed-is-the-new-centralized

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# Downloading Git



### Your download is starting...

You are downloading the latest (2.20.1) 32-bit version of Git for Windows. This is the most recent maintained build. It was released 2 months ago, on 2018-12-15.

If your download hasn't started, click here to download manually.

#### Other Git for Windows downloads

Git for Windows Setup 32-bit Git for Windows Setup.

64-bit Git for Windows Setup.

Git for Windows Portable ("thumbdrive edition") 32-bit Git for Windows Portable.

64-bit Git for Windows Portable.

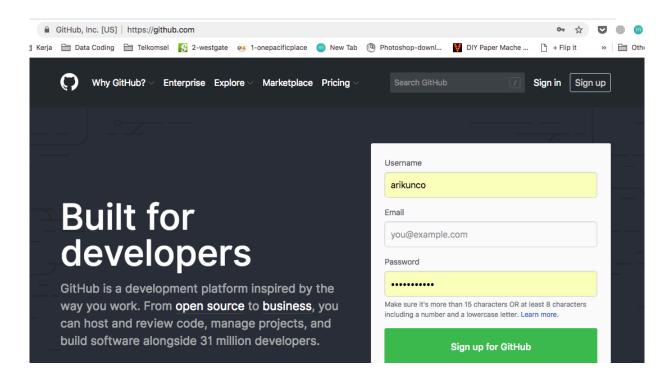
The current source code release is version 2.20.1. If you want the newer version, you can build it

# Setelah di-download, lakukan instalasi dengan opsi *default*.



## Create Github Account

- www.github.com
- Free for public repositories





## **Basic Git**

You typically obtain a Git repository in one of two ways:

- You can take a local directory that is currently not under version control, and turn it into a Git repository, or
- You can clone an existing Git repository from elsewhere

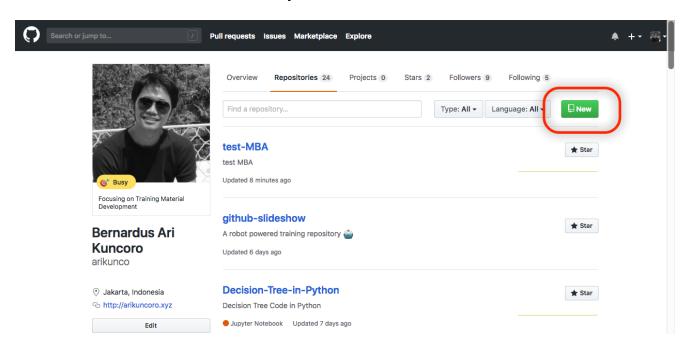
In either case, you end up with a Git repository on your local machine, ready for work.

https://git-scm.com/book/en/v2/Git-Basics-Getting-a-Git-Repository



Create new repositories and push files from your local.

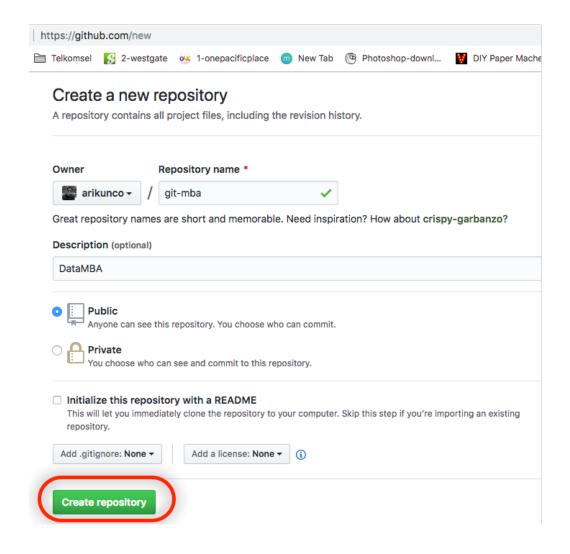
- Login to your github account at <a href="https://github.com">https://github.com</a>
- 2. Click Tab: Repositories, then click New Repositories





## **Basic Git**

- 3. Fill up the Repository name (mandatory), add description (optional)
- 4. Click "Create Repository"

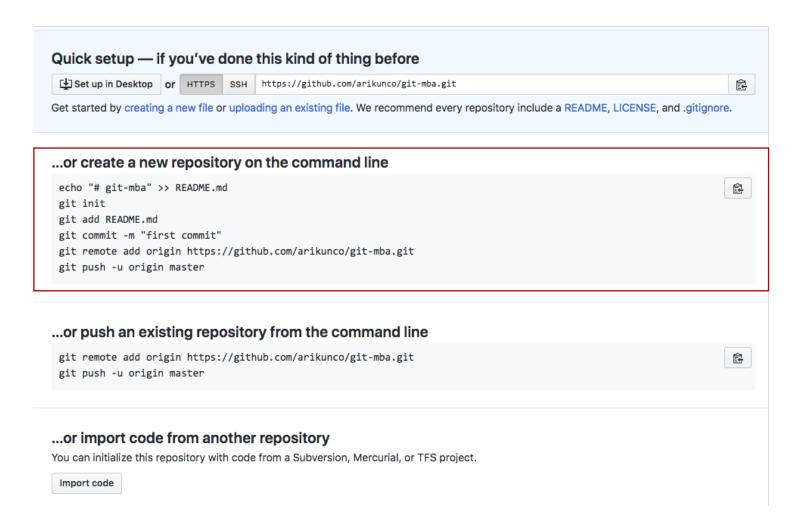




## Basic Git (push)

5. On your terminal, please make one directory: e.g. /Users/arikuncoro/Project/git-mba

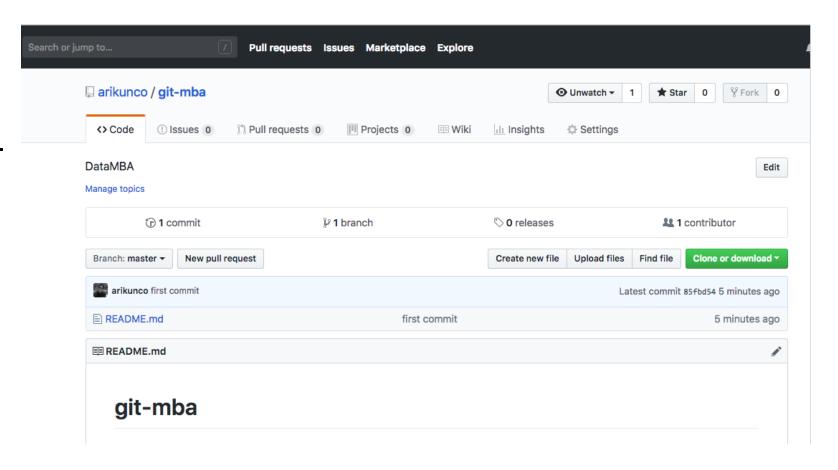
Then, do quick setup (choose the one in the box).





## **Basic Git**

Your repository and Readme.md is available online.





## **Basic Git**

You can clone the git from other's work.

git clone https://github.com/arikunco/git-mba.git

You can also pull from the master, using the following command, if there are any changes in the server.

git pull origin master





# What is git?

- Started in 2005
- Created by Linus Torvald to aid in Linux kernel development
- Git is NOT the only version control system



## What is version control?

- A system that keeps records of your changes
- Allows for collaborative development
- Allows you to know who made what changes and when
- Allows you to revert any changes and go back to a previous state
- Distributed version control
- Users keep entire code and history on their location machines
- Users can make any changes without internet access
- (Except pushing and pulling changes from a remote server)



# How does git work?

- Can be complicated at first, but there are a few key concepts
- Important git terminology in following slides are blue



# Key Concept: Snapshot

The way git keeps track of your code history

- Essentially records what all your files look like at a given point in time
- You decide when to take a snapshot, and of what files
- Have the ability to go back to visit any snapshot
- Your snapshots from later on will stay around, too



# **Key Concepts: Commit**

- The act of creating a snapshot
- Can be a noun or verb
- "I committed code"
- "I just made a new commit"
- Essentially, a project is made up of a bunch of commits



## **Key Concepts: Repositories**

- Often shortened to 'repo'
- A collection of all the files and the history of those files
- Consists of all your commits
- Place where all your hard work is stored
- Can live on a local machine or on a remote server (GitHub!)
- The act of copying a repository from a remote server is called cloning
- Cloning from a remote server allows teams to work together



# **Key Concepts: Repositories**

- The process of downloading commits that don't exist on your machine from a remote repository is called pulling changes
- The process of adding your local changes to the remote repository is called pushing changes



# **Key Concepts: Branches**

- All commits in git live on some branch
- But there can be many, many branches
- The main branch in a project is called the master branch



# So, what does a typical project look like?

- A bunch of commits linked together that live on some branch, contained in a repository
- Following images taken and modified from:
   <a href="http://marklodato.github.io/visual-gitguide/index-en.html">http://marklodato.github.io/visual-gitguide/index-en.html</a>
- Also a good tutorial!



So, what is HEAD?
So, what is MASTER?
Key concept: Merging



## What is Github?

## www.github.com

- Largest web-based git repository hosting service
- Aka, hosts 'remote repositories'
- Allows for code collaboration with anyone online
- Adds extra functionality on top of git
- UI, documentation, bug tracking, feature requests, pull requests, and more!

## Founded in 2008

Also has an Enterprise edition for businesses



# Let's follow this video for practicing

- For Mac: <a href="https://www.youtube.com/watch?v=Fce5hT5Hais">https://www.youtube.com/watch?v=Fce5hT5Hais</a> (5 minutes)
- For Windows: <a href="https://www.youtube.com/watch?v=77W2JSL7-r8">https://www.youtube.com/watch?v=77W2JSL7-r8</a> (15 minutes, so speed up 1.5x)



## **Additional Resources**

- Main resource: <a href="https://www.slideshare.net/HubSpot/git-101-git-and-github-for-beginners?from\_action=save">https://www.slideshare.net/HubSpot/git-101-git-and-github-for-beginners?from\_action=save</a>
- Official git site and tutorial: <a href="https://git-scm.com/">https://git-scm.com/</a>
- GitHub guides: <a href="https://guides.github.com/">https://guides.github.com/</a>
- Command cheatsheet: <a href="https://training.github.com/kit/downloads/github-git-cheat-sheet.pdf">https://training.github.com/kit/downloads/github-git-cheat-sheet.pdf</a>

