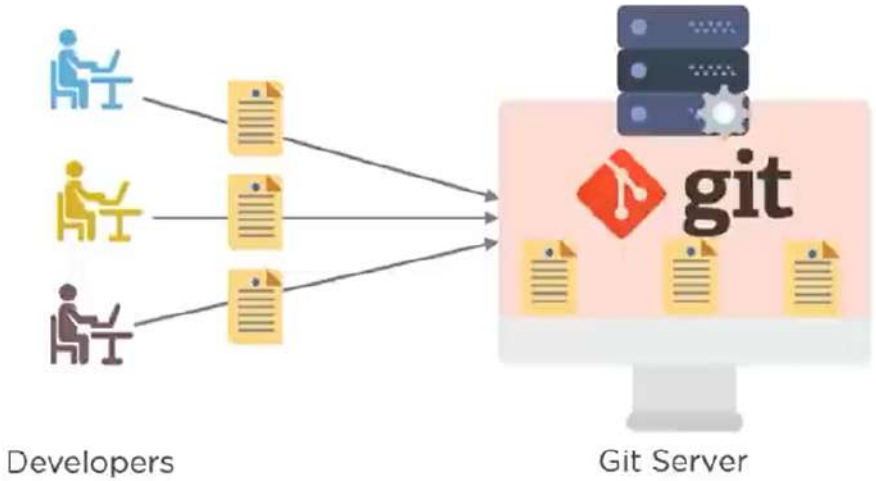
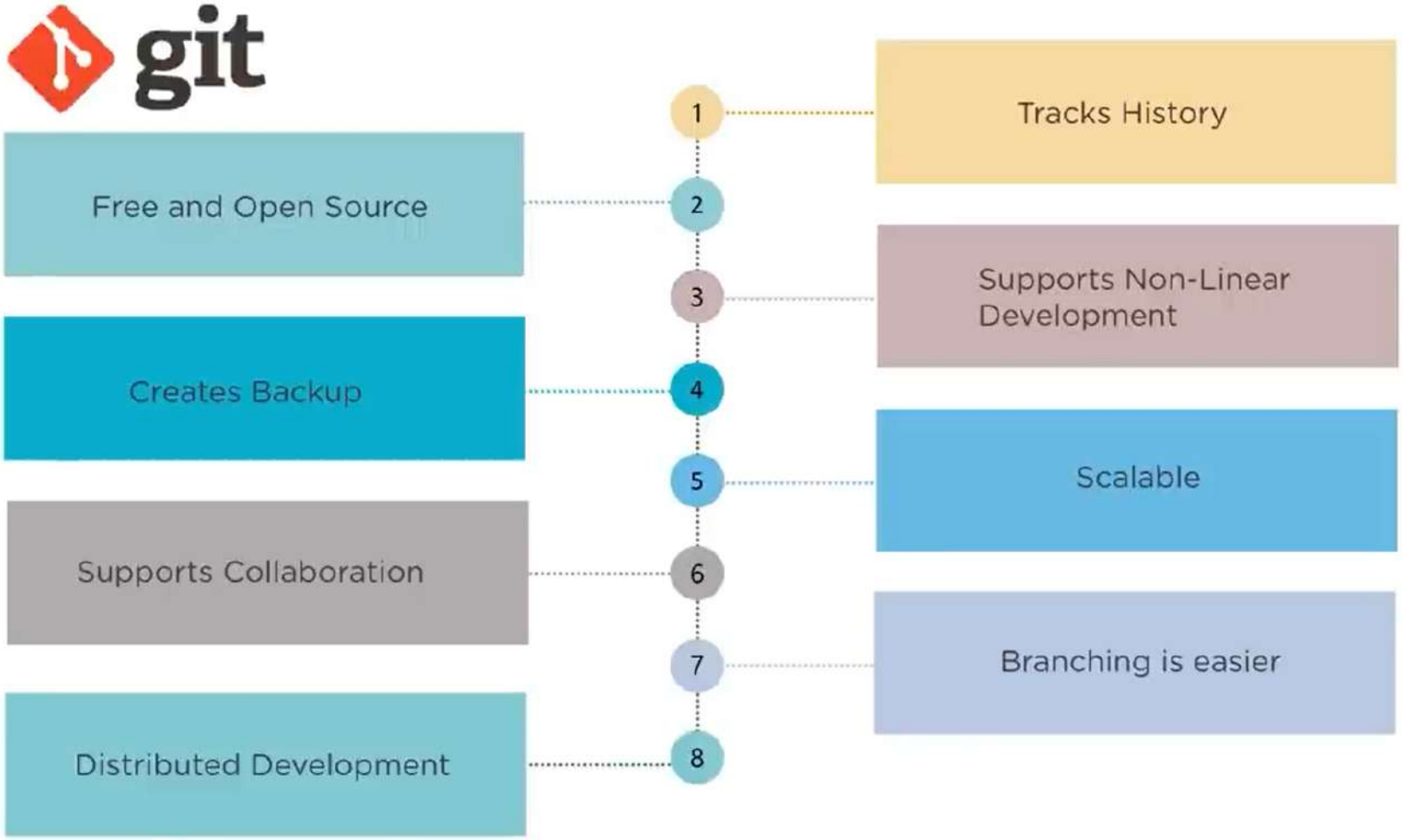
What is Git?

Git is a Version Control System for tracking changes in computer files. It is generally used for Source Code Management in software development.

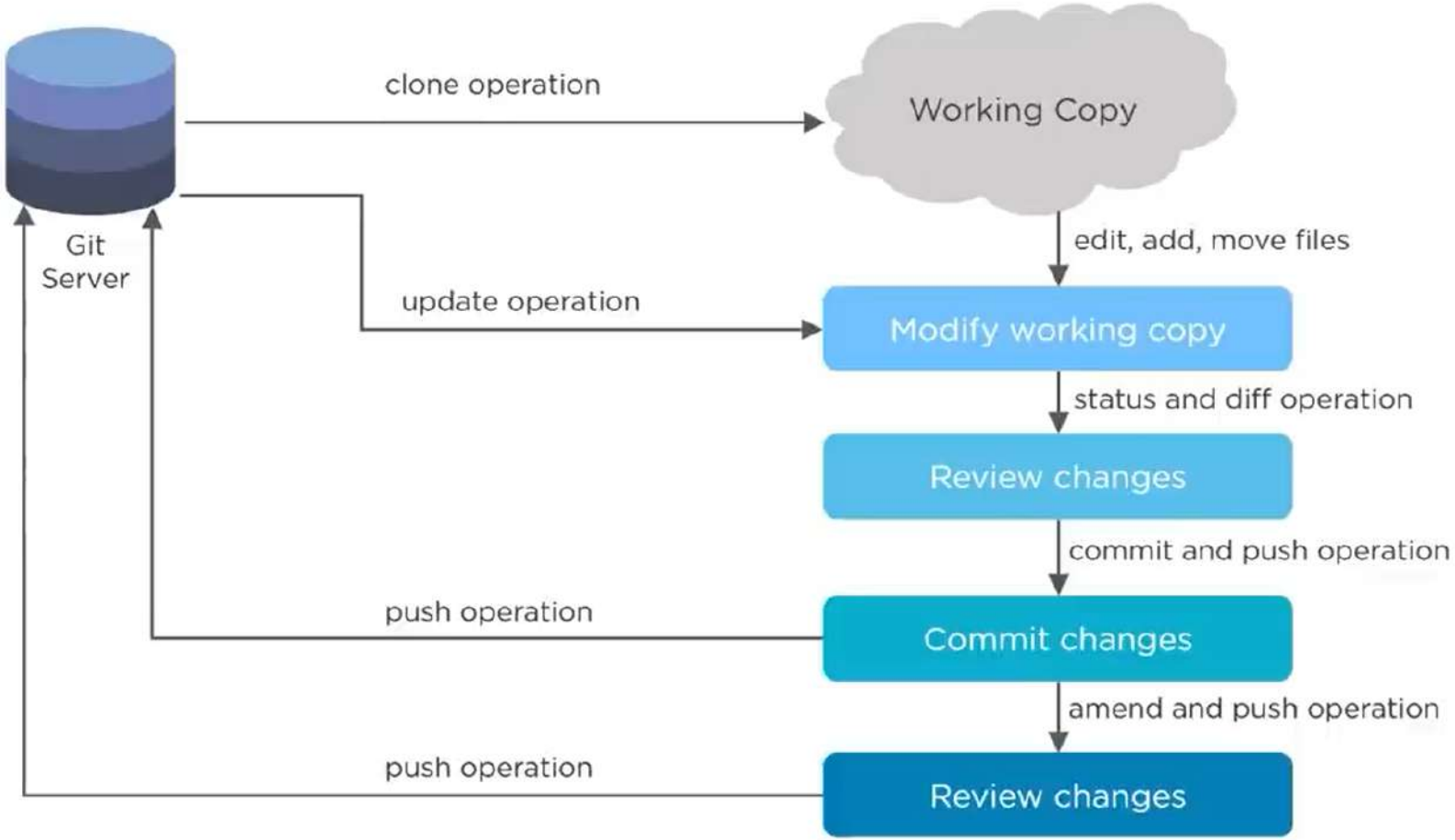


- Git is used to track changes in the source code
- Distributed version control tool used for source code management
- Allows multiple developers to work together
- Supports non-linear development because of its thousands of parallel branches

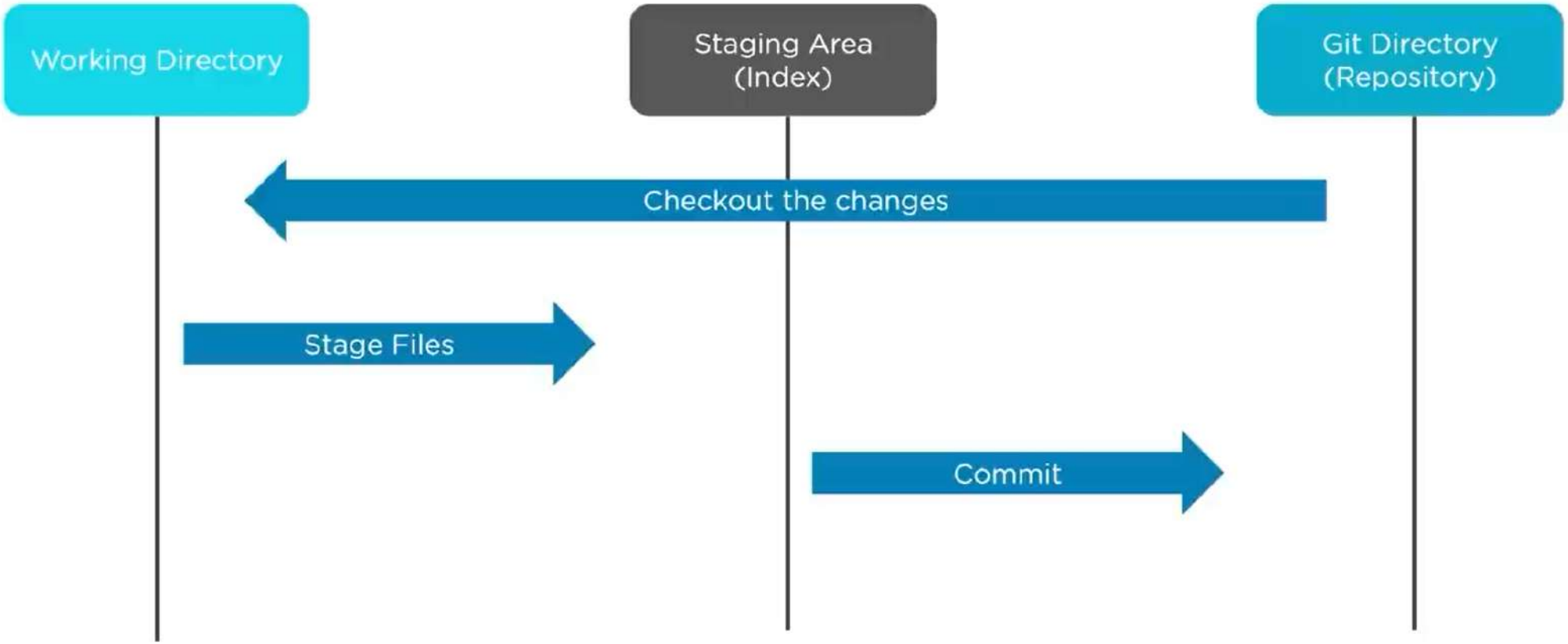
Features of Git



Git Workflow



Git Workflow – 3 States



Checkout any existing version, make changes, stage them and commit

Branch in Git

- Branch in Git is used to keep your changes until they are ready
- You can do your work on a branch while the main branch (master) remains stable. After you are done with your work, you can merge it to the main branch

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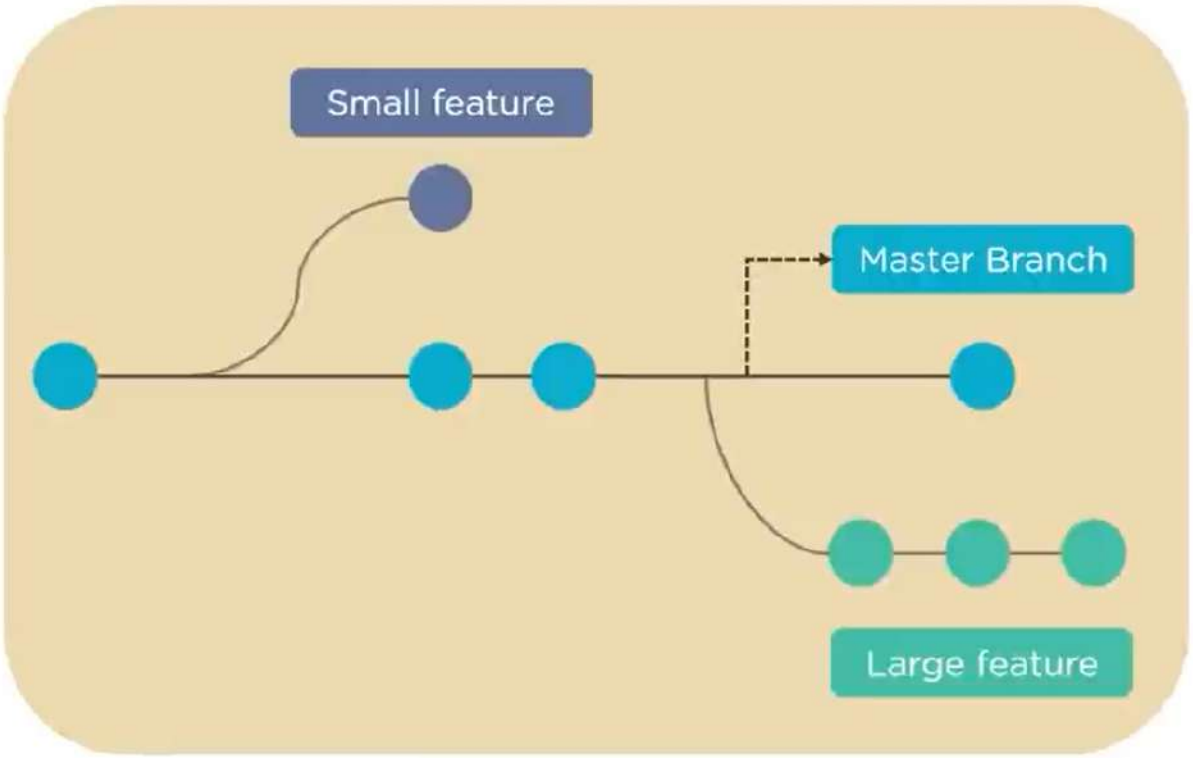
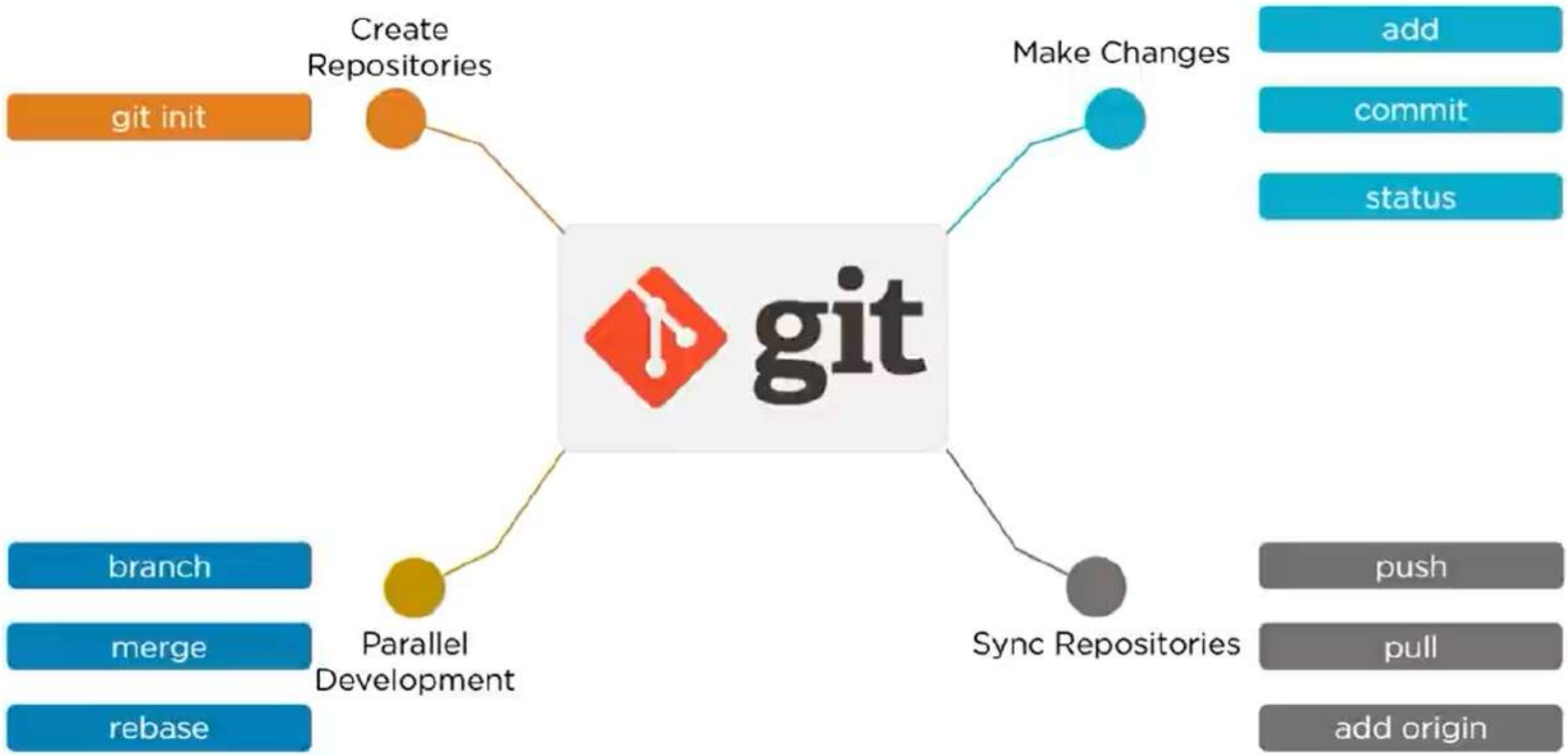


- The diagram shows there is a Master branch
- There are 2 more branches Small feature and Large feature working separately

Commands in Git



What's in it for you?

- Download and install Git
- Git bash interface
- Basic Git commands
- Create a local repository
- Connect to remote repository
- Push the file to GitHub

Your Account | Git - Downloads

https://git-scm.com/downloads

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

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  - GUI Clients
  - 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.

Downloads

Mac OS X Windows Linux/Unix

Older releases are available and the Git source repository is on GitHub.

GUI Clients

Git comes with built-in GUI tools (**git-gui**, **gitk**), but there are several third-party tools for users looking for a platform-specific experience.

View GUI Clients →

Logos

Various Git logos in PNG (bitmap) and EPS (vector) formats are available for use in online and print projects.

View Logos →

Git via Git

https://git-scm.com/download/win

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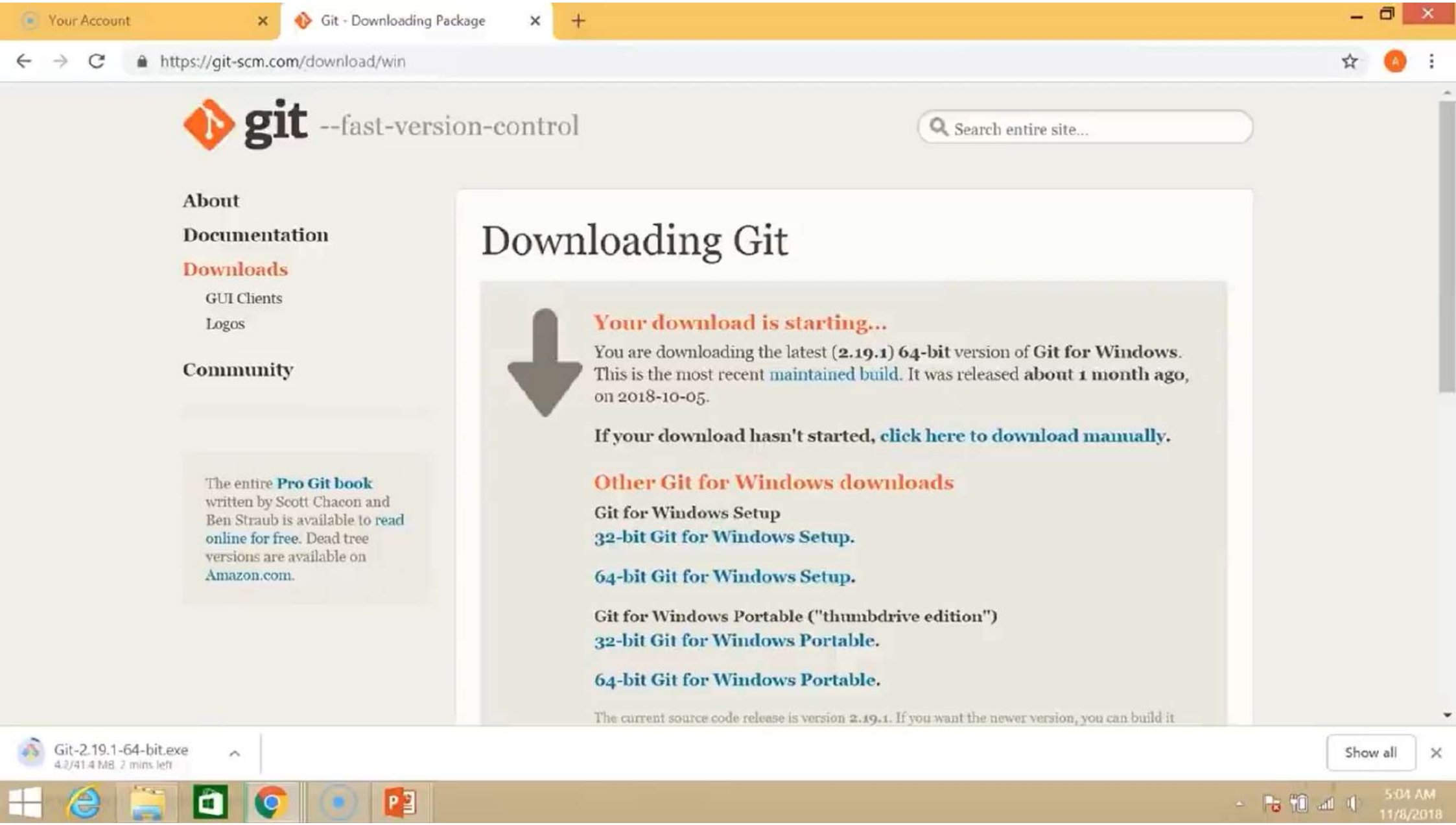
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The entire Pro Git book written by Scott Chacon and Ben Straub is available to read online for free. Dead tree versions are available on Amazon.com.
Downloading Git
Your download is starting...
You are downloading the latest (2.19.1) 64-bit version of Git for Windows. This is the most recent maintained build. It was released about 1 month ago, on 2018-10-05.
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 2.19.1. If you want the newer version, you can build it
Git-2.19.1-64-bit.exe
4.2/41.4 MB, 2 mins left
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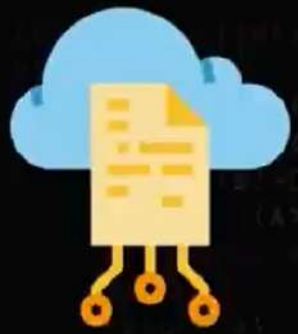
What is GitHub?

- GitHub is a Git repository hosting service, which provides a web-based graphical interface
- GitHub helps every team member to work together on the project from anywhere and makes it easy for them to collaborate

Git vs GitHub



Installed locally on the system

Hosted on the cloud

Git can be used offline and does not need an internet connection for use.

GitHub cannot be used offline and needs an internet connection.

Git vs GitHub

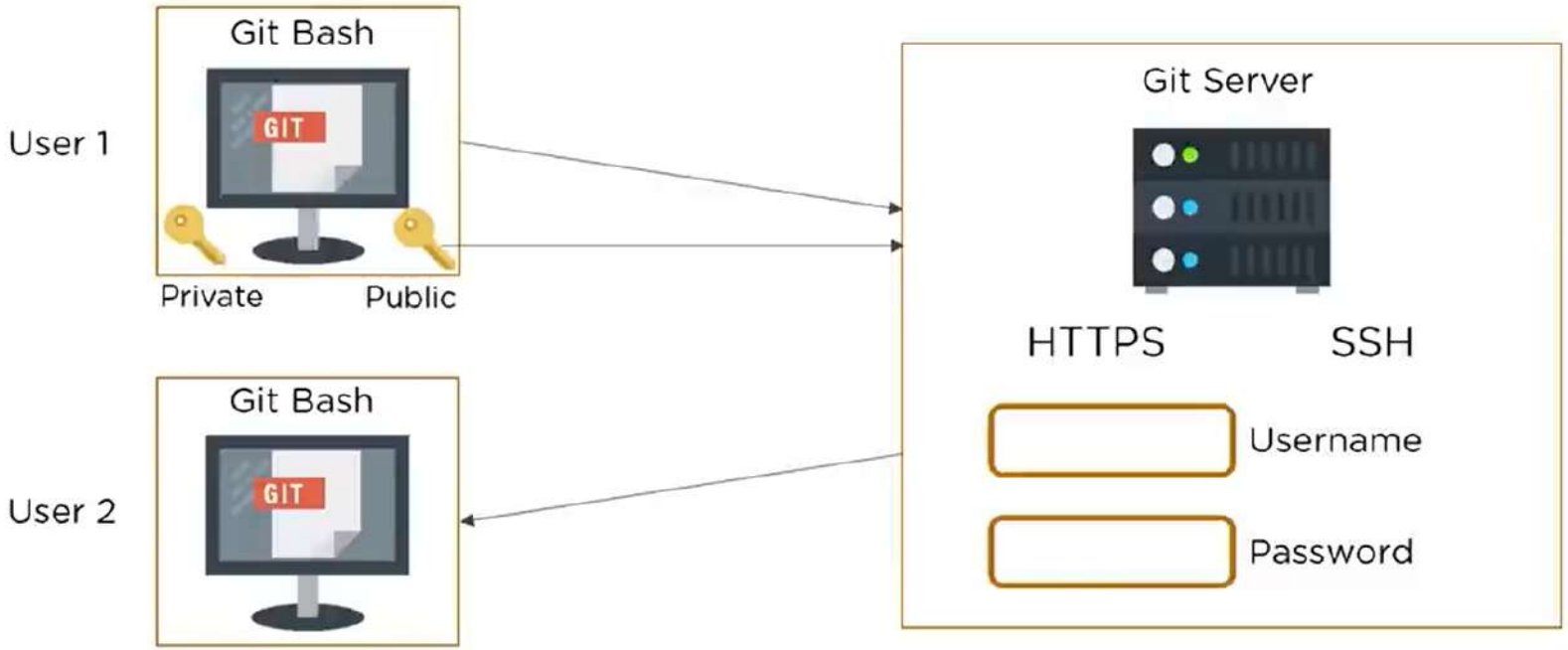
Git can be used without GitHub

GitHub cannot be used without Git

Used for version control and code sharing

Used for centralised source code hosting

What's in it for you?

- Install Git Bash/Client
- Configure Git Bash/Client for first time use
- Set up new repositories locally
- Push local repositories to GitHub (Free account Registration)
- Git Branching and Merging

Git Client Server