

CMPSC 104 - Document Engineering

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Introduction to Git

- A distributed version control system.
- Tracks changes in source code during software development.
- Facilitates collaboration, maintains a history of changes, and supports branching and merging.
- Software development, documentation, any project requiring version control.
 - Over 70% of developers use Git!

Why We Use Git

- Collaboration
- Version Control
- Branching and Merging
- Distributed Development

Installing Git

- Installation process on Windows, Mac, and Linux.
 - Git installed by default on most Mac and Linux machines
- Checking if you already have Git installed
 - Mac users, open up “Terminal”.
 - Windows machine, open the windows command prompt.
 - - *git version*
 - Version of Git or Git is an unknown command

Installing Git on Windows

- [Git for Windows installer](#) and download the latest version.
- Open the windows command prompt (or Git Bash if you selected not to use the standard Git Windows Command Prompt during the Git installation).
- Type *git version* to verify Git was installed.

Installing Git on Mac

Most versions of MacOS will already have Git installed, and you can activate it through the terminal with `git version`

- [Download for macOS.](#)
- Open the command prompt "terminal" and type `git version` to verify Git was installed.

Installing Git on Linux

Git was originally developed to version the Linux operating system!

Debian/Ubuntu

- Git packages are available using *apt*.
- Run the following command to make sure everything is up-to-date: *sudo apt-get update*.
- To install Git, run the following command: *sudo apt-get install git-all*.
- Verify the installation by typing: *git version*.

Fedora

- Git packages are available using *dnf*.
- To install Git, navigate to your command prompt shell and run the following command: *sudo dnf install git-all*.
- Verify the installation by typing: *git version*.

Note: You can download the proper Git versions and read more about how to install on specific Linux systems, like installing Git on Ubuntu or Fedora, in [git-scm's documentation](#).

Configure Git

- `git config --global user.name "xxxxx"`
- `git config --global user.email "xxx@xxx.com"`

Creating Git Folder

- `mkdir myproject`
- `cd myproject`

Git Init

- Command: `git init`
 - Initializes a new Git repository in your project directory (`/Users/user/myproject/.git/`).
- You just created your first Git Repository!