This document provides a step-by-step guide on how to install Git on major operating systems: Linux (Ubuntu and Red Hat/Fedora), Windows, and macOS.

🐧 Git Installation on Linux

The easiest way to install Git on Linux is by using the distribution's native package manager.

1. Ubuntu (Debian-based)

This method installs the version of Git available in the official Ubuntu repositories, which is generally stable but may not be the absolute latest version.

Step	Command	Description
1.	sudo apt update	Update your local package index.
2.	sudo apt install git	Install the Git package.
3.	git --version	Verify the installation by checking the Git version.

Tip for Latest Git on Ubuntu:
To ensure you get the latest stable version, you can add the official Git PPA (Personal Package Archive) before installation:

1. sudo add-apt-repository ppa:git-core/ppa
2. sudo apt update
3. sudo apt install git

2. Red Hat / Fedora (RPM-based)

For Red Hat, Fedora, and other related distributions like CentOS, you will use the dnf or yum package manager.

Step	Command	Description
1.	sudo dnf update (or sudo yum update)	Update your system packages.
2.	sudo dnf install git (or sudo yum install git)	Install the Git package.

3.	git --version	Verify the installation.

💻 Git Installation on Windows

The most recommended way to install Git on Windows is by using the official standalone installer.

Step	Action	Description
1.	**Download Installer**	Go to the official Git website and the download for the latest installer will start automatically.
2.	**Run the Installer**	Double-click the downloaded executable file (e.g., Git-x.x.x-64-bit.exe).
3.	**Follow Prompts**	Follow the on-screen instructions. It is generally safe to accept the **default options** during the installation process, as they are sensible for most users.
4.	**Verify Installation**	Open your **Command Prompt**, **PowerShell**, or **Git Bash** and run the command: git --version.

Note:
The installer also includes Git Bash, a dedicated terminal that emulates a Linux shell environment, which is highly recommended for running Git commands.

🍏 Git Installation on macOS

Git is often pre-installed on macOS as part of the **Xcode Command Line Tools**.

Step	Action / Command	Description
1.	git --version	Open your **Terminal** application and run this command.
2.	**Check for Git**	* If Git is installed, the version number will be displayed.
* If Git is **not** installed, macOS will usually prompt you to install the **Xcode Command Line Tools**. Follow the prompt to install them, which includes Git.		
3.	**Install via Homebrew (Recommended Alternative)**	If you have the Homebrew package manager installed, you can get the latest version more easily: brew install git.
4.	**Verify Installation**	Run git --version again to confirm the installation.

⚙️ Post-Installation Configuration (All Systems)

Once Git is installed, you must configure your user name and email address. This information is attached to your commits and identifies you as the author.

Configuration	Command	Example
Set User Name	git config --global user.name "Your Name"	git config --global user.name "John Doe"
Set User Email	git config --global user.email	git config --global user.email

	"youremail@example.com"	"john.doe@example.com"
Verify Settings	git config --list	Lists all configuration settings.
