**Git version control**

**Git Version Control:** Git is an open-source distributed version control system designed to track changes in files over time, promoting efficient collaboration among programmers. It utilizes specialized databases and interfaces with hosting services like GitHub, Bitbucket, and GitLab for remote repositories. Git's versatility, ease of use, and efficiency distinguish it from other software configuration management tools.

**What is Git? (Daily Notes):** Git is an open-source distributed version control system created by Linus Torvalds in 2005 for the Linux Kernel. It facilitates efficient collaboration among developers, serving as the foundation for platforms like GitHub and GitLab. Its ease of learning, fast performance, and independence from additional services contribute to its superiority over other software configuration management tools.

**Benefits of using Git (Daily Notes - Activity 1):** Git offers time efficiency, rapid execution of commands, and offline working capabilities. It provides an undo feature for mistakes, crucial in coding, and robust change tracking tools such as Diff, Log, and Status. Its support for offline work and versatile change tracking makes Git a valuable tool for collaborative software development, ensuring a streamlined and flexible version control system.

**Instructions for Configuration:** Git configuration is managed through the **git config** command. Key configurations include setting user name and email for commit messages, choosing a default text editor, checking configurations using **git config --list**, customizing output with colour themes, and understanding Git configuration levels (local, global, system). Configuration levels have a priority order: local, global, system, with specific use cases for each level.

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