Article about Git

The most widely used modern version control system in the world today is Git. Git is a mature, actively maintained open source project originally developed in 2005 by Linus Torvalds, the famous creator of the Linux operating system kernel. A staggering number of software projects rely on Git for version control, including commercial projects as well as open source. Developers who have worked with Git are well represented in the pool of available software development talent and it works well on a wide range of operating systems and IDEs (Integrated Development Environments).

In Git, every developer's working copy of the code is also a repository that can contain the full history of all changes.In addition to being distributed, Git has been designed with performance, security and flexibility in mind.

Performance

Unlike some version control software, Git is not fooled by the names of the files when determining what the storage and version history of the file tree should be, instead, Git focuses on the file content itself. After all, source code files are frequently renamed, split, and rearranged. Being distributed enables significant performance benefits as well.

Security

Git has been designed with the integrity of managed source code as a top priority. This protects the code and the change history against both accidental and malicious change and ensures that the history is fully traceable.With Git, you can be sure you have an authentic content history of your source code.Some other version control systems have no protections against secret alteration at a later date. This can be a serious information security vulnerability for any organization that relies on software development.

Flexibility

Git is flexible in its efficiency in both small and large projects and in its compatibility with many existing systems and protocols.Git has been designed to support branching and tagging as first-class citizens and operations that affect branches and tags are also stored as part of the change history. Not all version control systems feature this level of tracking.

Version control with Git

Git is the best choice for most software teams today. While every team is different and should do their own analysis, here are the main reasons why version control with Git is preferred over alternatives:

Git is good

Git has the functionality, performance, security and flexibility that most teams and individual developers need. These attributes of Git are detailed above. In side-by-side comparisons with most other alternatives, many teams find that Git is very favorable.

Git is standard

Git is the most broadly adopted tool of its kind. Nearly all of our project source code is managed in Git. Vast numbers of developers already have Git experience and a significant proportion of college graduates may have experience with only Git.

Git is a quality open source project

Git is a very well supported open source project with over a decade . Git enjoys great community support and a vast user base. Being open source lowers the cost for hobbyist developers as they can use Git without paying a fee. For use in open-source projects, Git is undoubtedly the successor to the previous generations of successful open source version control systems.