**Branches**

Branching is a feature available in most modern version control systems. Branching in other VCS’s can be an expensive operation in both time and disk space. In Git, branches are a part of your everyday development process. Git branches are effectively a pointer to a snapshot of your changes. When you want to add a new feature or fix a bug—no matter how big or how small—you spawn a new branch to encapsulate your changes. This makes it harder for unstable code to get merged into the main code base, and it gives you the chance to clean up your future’s history before merging it into the main branch.

A branch represents an independent line of development. Branches serve as an abstraction for the edit/stage/commit process. You can think of them as a way to request a brand new working directory, staging area, and project history. New commits are recorded in the history for the current branch, which results in a fork in the history of the project.

**Things You Should Know**

* The implementation behind Git branches is much more lightweight than other version control system models.
  + Instead of copying files from directory to directory, Git stores a branch as a reference to a commit; it represents the tip of a series of commits.
  + The history for a branch is extrapolated through the commit relationships.
* Git branches are an integral part of your everyday workflow.
* It’s important to understand that branches are just pointers to commits.
  + When you create a branch, all Git needs to do is create a new pointer, it doesn’t change the repository in any other way.

**git branch**

* The repository history remains unchanged. All you get is a new pointer to the current commit.
* To start adding commits to it, you need to select it with git checkout, and then use the standard git add and git commit commands.
* The git branch commands primary functions are to create, list, rename and delete branches.
* To operate further on the resulting branches the command is commonly used with other commands like git checkout.