

git log - to view commit history locally.

1. --all - viewing all commits
2. -x - viewing x most recent commits
3. --oneline - one line per commit, better way if you need to find and checkout to a particular old commit.
4. --author

Tagging - kind of like bookmarks kept in a book to return to the important parts again if needed. There are two types of tags in git, annotated and lightweight. Annotated are better and more generally used as they store more data like who created the tag, when (date) etc. lightweight tags are basically just that, lightweight. They are just a name and pointer to the commit tagged.

1. Adding tag to the current last commit
Git tag v1.0.7(tagname) - this creates lightweight tag.
To add annotated tag - git tag -a v1.0.7(tagname), can and should also use the -m option to add a message to the tag (description)
Git tag -a v1.0.7 -m "This includes the tagging feature"
2. Adding tag to old commit, first get the identifier using log then
Git tag -a(annotated) v1.0.7 {commit_id}
3. Viewing all tags - git tag
4. Viewing of a specific parent - git tag -l v1.0.* (all tags belonging to the line v1.0)
5. View details of specific tag - git show v1.0.7
6. Deleting tags - git tag -d v1.0.7
7. Pushing tags (tags are considered separate so even when pushing with the generic git push, tags would not be pushed) - git push origin v1.0.7 or git push --tags (to push all tags, generic push for tags)
8. Checkout tags - git checkout v1.0.7

Comparing commits -

Git diff

Git diff commit_id_1 commit_id_2 (diff between the two commits)

Git diff branch1..branch2 (compares the two branches)

Git diff branch1 branch2 file (compares the file between two branches)