Basic git

       a. To view the state of the staging index, use **git ls-files** = a debug utility for inspecting the state of the staging index tree. Using git ls-files –s displays additional metadata for the files in the staging index. The commit history stores its own object SHA's for identifying pointers to commits and refs and the staging index has its own object SHA's for tracking versions of files in the index.

       b. Git status displays changes between commit history and staging index.

Creating a git repo

git add and git commit compose the fundamental git workflow of edit, stage, commit.

1. Edit files in working dir
2. Stage changes with git add
3. Commit to project history with git commit
4. git reset is used to undo a commit or staged snapshot.
5. git push sends committed changes to remote repos for collaboration

Diff chunks:

First line is chunk header (enclosed in @@ symbols) and it is a summary of changes made to the file. -1 +1 means line one had changes. -34,6 + 34,8 means 6 lines have been extracted starting from line 34 and 8 lines have been added starting at line number 34.

\-   Indicates changes from first input

\+ indicates changes to second input.

ASCII art tree of all branches, decorated with names of tags and branches
      git log –graph –oneline –decorate –all

Git revert
revert some existing commits. Revert the changes the related patches introduce, and record some new commits that record them. Requires working tree to be clean.