

Git

1. Suppose you had a file, called `first.md`, and you made a copy of this file, named it `second.md` and made some changes to it. Next, suppose you ran `diff -u first.md second.md`.

Here is the content of the original `first.md`

A

B

C

D

E

F

Here is the output of the diff command:

```
--- first.md      2021-10-15 13:11:12.737592900 +1100
+++ second.md     2021-10-15 13:14:02.548934200 +1100
@@ -1,6 +1,8 @@
  A
  B
+$
  C
-D
+#
+%
  E
  F
```

What is the content of `second.md`?

The content of `second.md` is A B C # % E F.

‘+ \$’ means an empty line is now present between B and C.

2. (True or False) If you accidentally add a file to the staging area, you can remove it using `git reset`. For example, if you accidentally add `thrid.md`, but don't want it to be committed yet, run `git reset thrid.md` and the file will be removed from the staging area, **but it will still be in your working directory**.

True.

3. (True or False) The commands `git reset` and `git revert` can only be used to undo commits in the git repository.

False. Git reset is not limited to undoing commits; it can also unstage files.

Git revert only undoes commits.

4. (True or False) The commands `git checkout` can be used to roll back to a certain commit hash (check the documentation if you are unsure).

True, git checkout can be used to roll back to a certain commit hash temporarily, but it will put you in a detached HEAD state.

5. (True or False) We cannot commit changes in the working directory directly to the repo without adding it to the staging index first (read the documentation if you are unsure).

False. Git allows you to bypass the staging area and commit changes in the working directory directly using `git commit -a -m "Message"`.

6. (True or False) `git log -p` and `git log` will give you the same output.

False, because `git log -p` includes the patch (diff) for each commit, while `git log` only shows a summary of the commit history.

7. (True or False) `git log --oneline` and `git log --stat` will give you the same output.

False, because `git log --oneline` provides a single-line summary for each commit, while `git log --stat` provides detailed statistics about file changes in each commit.

8. (True or False) It is recommended that in most cases we should use `git revert` rather than `git reset` to undo commits because `git revert` is safer.

True, because `git revert` is safer for undoing commits, especially in shared repositories, as it avoids rewriting history and preserves the integrity of the commit history.