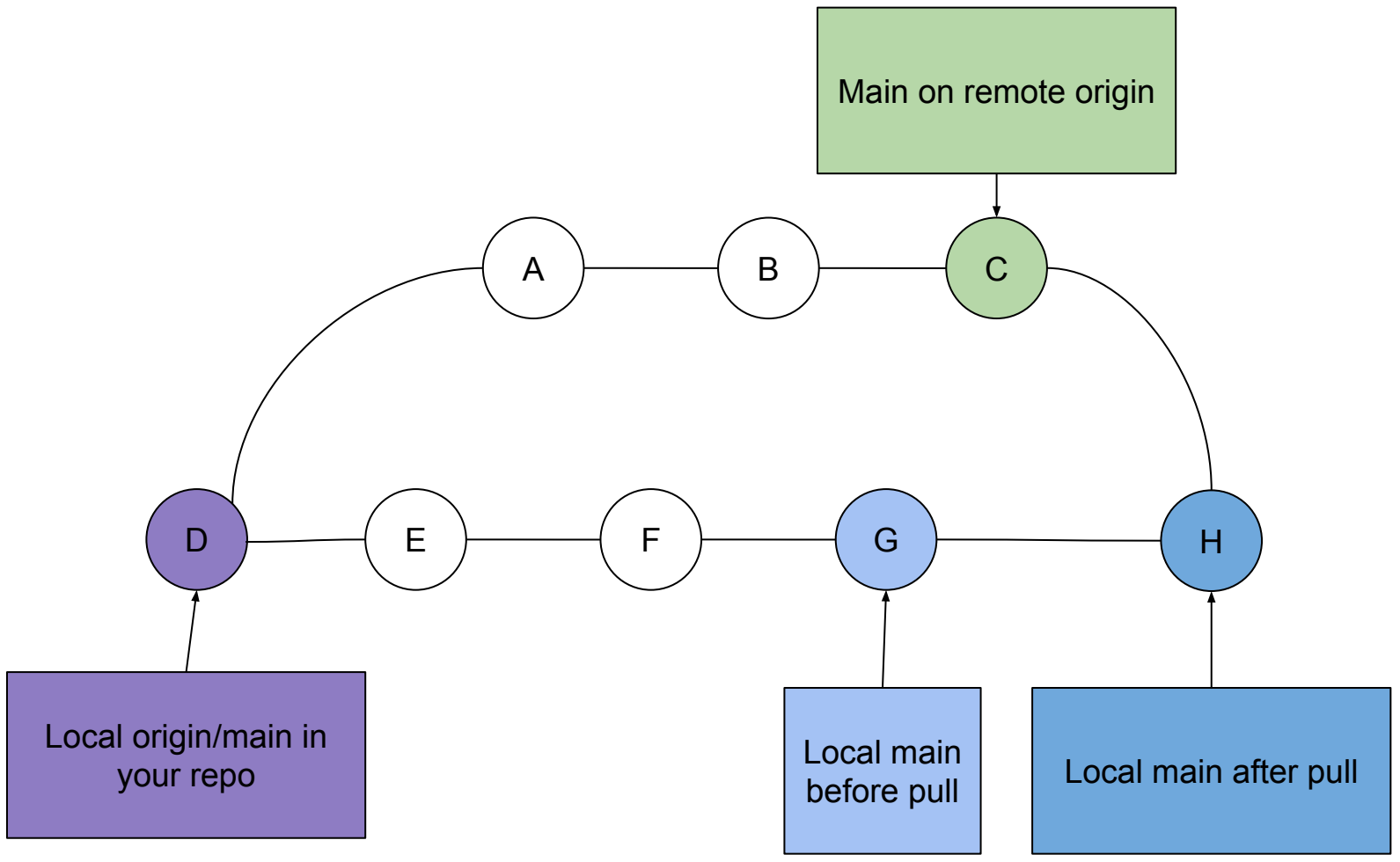
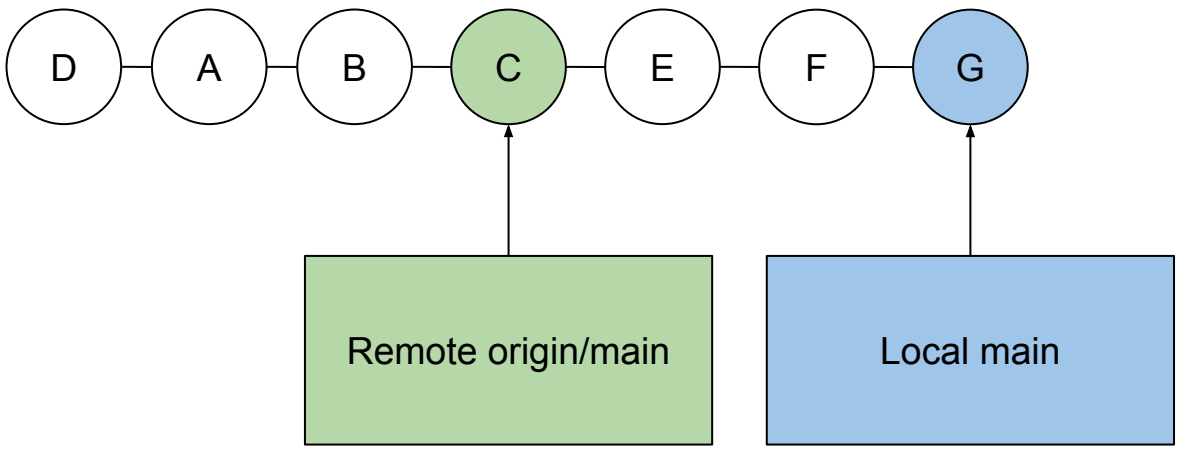
Normal Git Pull

In this scenario, git pull will download all the changes from the point where the local and main diverged. In this example, that point is E. git pull will fetch the diverged remote commits which are A-B-C. The pull process will then create a new local merge commit containing the content of the new diverged remote commits.



In the above diagram, we can see the new commit H. This commit is a new merge commit that contains the contents of remote A-B-C commits and has a combined log message. This example is one of a few git pull merging strategies. A --rebase option can be passed to git pull to use a rebase merging strategy instead of a merge commit. The next example will demonstrate how a rebase pull works. Assume that we are at a starting point of our first diagram, and we have executed git pull --rebase.

Git Pull With Rebase



In this diagram, we can now see that a rebase pull does not create the new H commit. Instead, the rebase has copied the remote commits A--B--C and rewritten the local commits E--F--G to appear after them them in the local origin/main commit history.