Amey Salvi

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Git Assignment

1. The advantages of Git are traceability, branching and merging and a change history of all files.
2. Git is written using C, Python but it is a command line tool and changes can be made using command prompt.
3. Staging area is the place where your file is stored before we make the commit. Index is a file which is used to keep track of changes being made over the staging area, working directory and repository.
4. After creating a file, go to GitHub and click on “New repository”. Add a name, select if you want to add a Readme file or not and hit “Create”.
5. HEAD can be referred to as the “current branch”. We can have any number of heads in a repository.
6. Branching allows a number of people to work in parallel on the same project without affecting other’s work.
7. In command prompt, write “git branch name\_of\_branch”.
8. Conflict arises when two people make changes to the same line or code in a file. Git gives a merge conflict and asks us to choose one of the two scenarios to go ahead with the merging.
9. To resolve a conflict, we select one of the multiple changes made. And then commit, push and merge the branches.
10. git config is used to set the configuration values on a global or local level.
11. A fork is a copy of a repository, which allows us to freely make changes to it without affecting the original repo.
12. Clone is a copy of the master branch (the entire code), branch is a modified version of a branch and fork is a copy made to make changes which can be then compared with other branches.
13. Branch is a separate version of your code. “Pull request” is a command which says that we need to merge certain changes in your branch to the target branch.
14. “git pull” updates the current branch with its remote version. “git fetch” is done by “git pull” to update the branch.
15. From the commit hash number we get from the log, we use the command “git revert <commit hash>”.
16. The main advantage of Forking Workflow is to keep the main repo clean.
17. HEAD can be referred to as the “current branch”. Index is a file which is used to keep track of changes being made over the staging area, working directory and repository. Working tree is the state of the file in the checkout.
18. Git branch –merged master prints the branches that have been merged with the master branch.
19. Git clone is used to point to an existing repository and make a clone of it at another location.
20. git stash allows us to save or stack our current unfinished modified files and staged changes, if we want to switch branches.
21. git stash is to be used when we want to switch branches, and we have unfinished modified files that we don’t want to commit yet.
22. git stash drop command allows us to drop or delete our stashed files on the stack.
23. git stash save <message> is used to write a message and save it to the stash.
24. README file helps use to communicate the tips and expectations of our project. (.md) extension stands for markdown which is a plain-text format.
25. We need to create a new directory and go to that directory using the command prompt. Then type “git init”, then write some code to it and then type “git add” to add the files. Then ultimately, type “git commit” to commit the changes.
26. git checkout allows us to switch or navigate between branches we have created using git branch.
27. Feature is a new branch which is modified separately from the master branch. We can use “git push feature” to add it to the main branch.
28. git –rm is used to remove the files from index and working tree.
29. git stash apply is used to apply and confirm the current stashed branch to the main branch.
30. git log can be used to take a look at the existing commit history.
31. git add command adds a change in the working directory to the staging area. It includes any update to a particular file in the next commit.
32. git diff command is used to view the changes made to the index.
33. git status command displays the state of the working directory and the staging area. It allows us to see changes we have made and which files aren’t being tracked by Git.
34. No, we cannot create multiple branches with one command.
35. git branch –d branch\_name is used to delete a branch in git.
36. git rebase can be used as an alternative to git merge.
37. git rm --cached file is the command to remove from index but not from local directory.
38. git rebase is used to be used when the changes to be made are made for individuals. For changes which are shared with other developers, git merge is preferred.
39. Repository is a folder inside a project. It tracks all changes made to the files in your project, building a history over time.
40. git commit –m “message” is the command to write a commit message.
41. The commit object contains the directory tree object hash, parent commit hash, author, committer, date and message.
42. Git can be used when making a game. For the game, the developers, artists, sound designers and level designers have to make commits and create separate branches and combine their individual files by merging.
43. Perforce is another version control software which is similar to GitHub.
44. Gists are small snippets of code or guides that you would like people to access when accessing your project.
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46. Perforce and Bitbucket are two of the git repository hosting services.