Git Interview Questions

---------------------------

1. What is Version control system or Source code manager?

**Version control**, also known as **source control**, is the practice of tracking and **managing** changes to software **code**

2. Benefits of VCS or SCM?

**Version Control** System or **VCS** is nothing but a system that helps **you** keep track of **your** entire file collection.

3. What is Git and What is a repository in GIT?

Repositories in [GIT](https://www.geeksforgeeks.org/git-lets-get-into-it/) contain a collection of files of various different versions of a Project. These files are imported from the repository into the local server of the user for further updations and modifications in the content of the file

4. Diffrence between Git and SVN?

5. Two types of git authentication?

**Git** supports **two types** of remotes: SSH and HTTPS. These **two** use completely distinct **authentication** systems. For HTTPS remotes, **git** authenticates with a username + password. With GitHub, instead of a password, you can also use a Personal Access Token (PAT).

6. Branches in Git and its purpose?

 When you want to add a new feature or fix a bug—no matter how big or how small—you spawn a new **branch** to encapsulate your changes.

What is the common branching pattern in GIT?

7. What is Pull requests?

If you use git **pull** , you **pull** the changes from the remote repository into yours. If you send a **pull request** to another repository, you ask their maintainers to **pull** your changes into theirs

8. How to install git in Linux & Windows?

1. **install Git** using apt-get: $ sudo apt-get update $ sudo apt-get **install git**.
2. Verify the **installation** was successful by typing **git** --version : $ **git** --version **git** version 2.9.2.
3. Configure your **Git** username and email using the following commands,

9. How to setup repository though command line?

touch README.md

git init

git add README.md

git commit -m "first commit"

git remote add origin git@github.com:alexpchin/<reponame>.git

git push -u origin master

10. How to setup repository in github and clone it?

You can clone a repository from GitHub to your local computer to make it easier to fix merge conflicts, add or remove files, and push larger commits. When you clone a repository, you copy the repository from GitHub to your local machine.

11. What is git clone command used for?

git clone <git-hub URL>

12. What is git config command user for?

git config --global user.name "John Doe"

$ git config --global user.email johndoe@example.com

The **git config command** is a convenience function that is used to set **Git configuration** values on a global or local project level

13. Git config data is stored in what location?

**gitconfig** located in the user's home folder (C:\Users\**git** user) Local **Git** configuration: **File** named **config** in the . **git** folder of the local repo.

14. Git config global and local files?

* **Local** -: Values in this file apply to a single repository.
* **Global** -: Configuration values in this file are applied to a single user

16. Git add command’s purpose?

**git add** -**u** " only adds currently tracked files (which have been modified) to the staging area

17. How to remove/rename files in local git repo?

The "rm" command helps you to **remove files** from a **Git repository**.

git mv iphone mobile( using mv command )

18. git commit command’s purpose?

The "**commit**" **command** is used to save your changes to the local repository.

19. How to sync local git repo data with github?

git init , git add , git committe , git branch , git origin , git push

20. git fetch?

21. git merge?

22. git pull?

The git pull command is used to fetch and download content from a remote repository and immediately update the local repository to match that content Then a git merge is executed to merge the remote content refs and heads into a new local merge commit.

23. How to change branches in local git repo?

**The easiest way to switch branch on Git is to use the “[git checkout](https://git-scm.com/docs/git-checkout)” command and specify the name of the branch you want to switch to.**

git checkout <existing\_branch> $ git checkout -b <new\_branch>

24. What is the difference between ‘git remote’ and ‘git clone’?

git remote add just creates an entry in your git config that specifies a name for a particular URL. You must have an existing git repo to use this.

git clone creates a new git repository by copying an existing one located at the URI you specif

25. git status?

The **git status** command displays the state of the working directory and the staging area. It lets you see which changes have been staged

26. What is the function of ‘git rm’?

for remove files

27. What is the function of ‘git checkout’ in git?

chnging the branches

28. What is the use of ‘git log’?

The **Git Log** tool allows you to view information about previous commits that have occurred in a project.

29. Explain what is commit message?

The **commit** command is used to save changes to a local repository after staging in Git.

30. How to setup github ssh authentication?

1. og into your **GitHub** account.
2. Click your avatar and choose **Settings**.
3. Select **SSH** and GPG keys.
4. Click New **SSH key**.
5. Enter a title in the field.
6. Paste your public **key** into the **Key** field.
7. Click Add **SSH key**.

31. What is git webhooks?

automatically triggers a build of your app whenever you perform a specified action, such as a code push or a pull request. For **GitHub**

33.Tell me the branching strategies you followed for your project?

34. What is git rebase?

35. What is git stash?

36. What is the difference between git pull and git fetch?

37. Differnce between git and svn?

38. Advantages of git compare with svn?

39. Explain about staging area in git?

The **staging area** is like a rough draft space, it's where you can **git** add the version of a file or multiple files that you want to save in your next commi

40. How do you check after git merge …where merging is correctly or not?

41. How to create branch and delete a branch?

The git **branch** command can be used to **create a new branch**.

**Delete a branch** with git **branch** -d <**branch**>

To delete a remote branch, you need to use the "git push" command:

$ git push origin --delete <remote-branch-name>

42. Do you get any conflicts while merging..how can u resolve conflicts?

43. How can u implement authentication and authorization in git?

44. What is the difference between git rebase and git merge?

**Merging** takes the contents of a source branch and combines them **with a** target branch

**Git Rebase** - Another way to integrate modifications from one branch to another **is** by **Rebase**.

45. How to merge the code?

46. Pull request in git hub - ---git pull

47. Forking a repository in git hub?

48. Diff between svn and git ---svn is centralized version control and git is Distributed Version Control.?

49. What is forking in git repositories?

**Forking** is just containing a separate copy of the repository and there is no command involved. **Cloning** is done through the command 'git **clone**' and it is a process of receiving all the code files to the local machine

50. explain about soft and hard reset and their difference?

51. What kind of branching and merging you worked on GIT.

52. with this kind of environment and the git release branching, does it work in Agile methodology?

53. What is tagging in GIT and what is the diff between feature branching and tagging