GIT Q&A

**www.zippyops.com**

172-172, 5th floor Old Mahabalipuram Road

(Above Axis Bank-PTC Bus Stop)  
Thuraipakkam  
Chennai 600097

**🖂**[**zippyops@gmail.com**](mailto:zippyops@gmail.com)

**✆+91 7010585768**

1.**What is GIT?**

GIT is a distributed version control system and source code management (SCM) system with an emphasis to handle small and large projects with speed and efficiency.

**2.What is a repository in GIT?**

A repository contains a directory named .git, where git keeps all of its metadata for the repository. The content of the .git directory are private to git.

**3.What is the command you can use to write a commit message?**

The command that is used to write a commit message is “git commit –a”.  The –a on the command line instructs git to commit the new content of all tracked files that have been modified. You can use “git add<file>” before git commit –a if new files need to be committed for the first time.

**4.What is the difference between GIT and SVN?**

The difference between GIT and SVN is

a)      Git is less preferred for handling extremely large files or frequently changing binary files while SVN can handle multiple projects stored in the same repository.

b)      GIT does not support ‘commits’ across multiple branches or tags.  Subversion allows the creation of folders at any location in the repository layout.

c)        Gits are unchangeable, while Subversion allows committers to treat a tag as a branch and to create multiple revisions under a tag root.

**5.What are the advantages of using GIT?**

a)      Data redundancy and replication

b)      High availability

c)       Only one.git directory per repository

d)      Superior disk utilization and network performance

e)      Collaboration friendly

f)       Any sort of projects can use GIT

**6.What language is used in GIT?**

GIT is fast, and ‘C’ language makes this possible by reducing the overhead of runtimes associated with higher languages.

**7.What is the function of ‘GIT PUSH’ in GIT?**

‘GIT PUSH’ updates remote refs along with associated objects.

**8.Why GIT better than Subversion?**

GIT is an open source version control system; it will allow you to run ‘versions’ of a project, which show the changes that were made to the code overtime also it allows you keep the backtrack if necessary and undo those changes.  Multiple developers can checkout, and upload changes and each change can then be attributed to a specific developer.

**9.What is “Staging Area” or “Index” in GIT?**

Before completing the commits, it can be formatted and reviewed in an intermediate area known as ‘Staging Area’ or ‘Index’.

**10.What is GIT stash?**

GIT stash takes the current state of the working directory and index and puts in on the stack for later and gives you back a clean working directory.  So in case if you are in the middle of something and need to jump over to the other job, and at the same time you don’t want to lose your current edits then you can use GIT stash.

**11.What is GIT stash drop?**

When you are done with the stashed item or want to remove it from the list, run the git ‘stash drop’ command.  It will remove the last added stash item by default, and it can also remove a specific item if you include as an argument.

**12.How will you know in GIT if a branch has been already merged into master?**

Git branch—merged lists the branches that have been merged into the current branch

Git branch—-no merged lists the branches that have not been merged

**13.What is the function of git clone?**

The git clone command creates a copy of an existing Git repository.  To get the copy of a central repository, ‘cloning’  is the most common way used by programmers.

**14.What is the function of ‘git config’?**

The ‘git config’ command is a convenient way to set configuration options for your Git installation.  Behaviour of a repository, user info, preferences etc. can be defined through this command.

**15.What does commit object contain?**

a)      A set of files, representing the state of a project at a given point of time

b)      Reference to parent commit objects

c)       An SHAI name, a 40 character string that uniquely identifies the commit object.

**16.How can you create a repository in Git?**

In Git, to create a repository, create a directory for the project if it does not exist, and then run command “git init”. By running this command .git directory will be created in the project directory, the directory does not need to be empty.

**17.What is ‘head’ in git and how many heads can be created in a repository?**

A ‘head’ is simply a reference to a commit object. In every repository, there is a default head referred as “Master”.  A repository can contain any number of heads.

**18.What is the purpose of branching in GIT?**

The purpose of branching in GIT is that you can create your own branch and jump between those branches. It will allow you to go to your previous work keeping your recent work intact.

**19.What is the common branching pattern in GIT?**

The common way of creating branch in GIT is to maintain one as “Main“

branch and create another branch to implement new features. This pattern is particularly useful when there are multiple developers working on a single project.

**20.How can you bring a new feature in the main branch?**

To bring a new feature in the main branch, you can use a command “git merge” or “git pull command”.

**21.What is a ‘conflict’ in git?**

A ‘conflict’ arises when the commit that has to be merged has some change in one place, and the current commit also has a change at the same place. Git will not be able to predict which change should take precedence.

**22.How can conflict in git resolved?**

To resolve the conflict in git, edit the files to fix the conflicting changes and then add the resolved files by running “git add” after that to commit the repaired merge,  run “git commit”.  Git remembers that you are in the middle of a merger, so it sets the parents of the commit correctly.

**23.To delete a branch what is the command that is used?**

Once your development branch is merged into the main branch, you don’t need

development branch.  To delete a branch use, the command “git branch –d [head]”.

**24.What is another option for merging in git?**

“Rebasing” is an alternative to merging in git.

**25.What is the syntax for “Rebasing” in Git?**

The syntax used for rebase is “git rebase [new-commit] “

**26.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.  While, ‘git clone’ creates a new git repository by copying and existing one located at the URI.

**27.What is GIT version control?**

With the help of GIT version control, you can track the history of a collection of files and includes the functionality to revert the collection of files to another version.  Each version captures a snapshot of the file system at a certain point of time. A collection of files and their complete history are stored in a repository.

**28.Mention some of the best graphical GIT client for LINUX?**

Some of the best GIT client for LINUX is

a)      Git Cola

b)      Git-g

c)       Smart git

d)      Giggle

e)      Git GUI

f)       qGit

**29.What is Subgit? Why to use Subgit?**

Subgit’ is a tool for a smooth, stress-free SVN to Git migration.  Subgit is a solution for a company -wide migration from SVN to Git that is:

a)      It is much better than git-svn

b)      No requirement to change the infrastructure that is already placed

c)       Allows to use all git and all sub-version features

d)      Provides genuine stress –free migration experience.

**30.What is the function of ‘git diff ’ in git?**

‘git diff ’ shows the changes between commits, commit and working tree etc.

**31.What is ‘git status’ is used for?**

As ‘Git Status’ shows you the difference between the working directory and the index, it is helpful in understanding a git more comprehensively.

**32.What is the difference between the ‘git diff ’and ‘git status’?**

‘git diff’ is similar to ‘git status’, but it shows the differences between various commits and also between the working directory and index.

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

A ‘git checkout’ command is used to update directories or specific files in your working tree with those from another branch without merging it in the whole branch.

**34.What is the function of ‘git rm’?**

To remove the file from the staging area and also off your disk ‘git rm’ is used.

**35.What is the function of ‘git stash apply’?**

When you want to continue working where you have left your work, ‘git stash apply’ command is used to bring back the saved changes onto the working directory.

36. **What is the use of ‘git log’?**

To find specific commits in your project history- by author, date, content or history ‘git log’ is used.

37. **What is ‘git add’ is used for?**

‘git add’ adds file changes in your existing directory to your index.

38. **What is the function of ‘git reset’?**

The function of ‘Git Reset’ is to reset your index as well as the working directory to the state of your last commit.

39. **What is git Is-tree?**

git Is-tree’ represents a tree object including the mode and the name of each item and the SHA-1 value of the blob or the tree.

40. **How git instaweb is used?**

‘Git Instaweb’ automatically directs a web browser and runs webserver with an interface into your local repository.

**41. What does ‘hooks’ consist of in git?**

This directory consists of Shell scripts which are activated after running the corresponding Git commands.  For example, git will try to execute the post-commit script after you run a commit.

42. **Explain what is commit message?**

Commit message is a feature of git which appears when you commit a change. Git provides you a text editor where you can enter the modifications made in commits.

43. **How can you fix a broken commit?**

To fix any broken commit, you will use the command “git commit—amend”. By running this command, you can fix the broken commit message in the editor.

44. **Why is it advisable to create an additional commit rather than amending an existing commit?**

There are couple of reason

a)      The amend operation will destroy the state that was previously saved in a commit.  If it’s just the commit message being changed then that’s not an issue.  But if the contents are being amended then chances of eliminating something important remains more.

b)      Abusing “git commit- amend” can cause a small commit to grow and acquire unrelated changes.

45. **What is ‘bare repository’ in GIT?**

To co-ordinate with the distributed development and developers team, especially when you are working on a project from multiple computers ‘Bare Repository’ is used. A bare repository comprises of a version history of your code.

46. **Name a few Git repository hosting services**

* Pikacode
* Visual Studio Online
* GitHub
* GitEnterprise
* SourceForge.net

47. What is a pull request in GIT ?

A draw ask for in GIT is the rundown of changes that have been pushed to GIT store. For the most part, these progressions are pushed in a component branch or hotfix branch. In the wake of pushing these progressions, we make a force ask for that contains the progressions amongst ace and our element branch. This draw asks for is sent to analysts for investigating the code and afterward blending it in to create or discharge branch.

48. What is merge conflict in GIT ?

A consolidation struggle in GIT is the consequence of combining two confers. Once in a while, the resolve to be blended and current submit have changes in the same area. In this situation, GIT can’t choose which change is more critical. Because of this GIT reports a union clash. It implies blend isn’t effective. We may need to physically check and resolve the consolidation struggle.

49. What is “Staging Area” or “Index” in GIT ?

 Before finishing the submits, it can be organized and inspected in a middle of the road zone known as ‘Arranging Area’ or ‘Index’

50. How will you know in GIT if a branch has been already merged into master ?

**Git branch**—blended records the branches that have been converted into the present branch

**Git branch—**no consolidated records the branches that have not been blended.

51. What does commit object contain ?

1. An arrangement of records, speaking to the condition of an undertaking for a given purpose of time
2. Reference to parent confer objects
3. An SHAI name, a 40 character string that extraordinarily distinguishes the confer protest.

52. How can you create a repository in Git ?

In Git, to make a storehouse, make an index for the undertaking on the off chance that it doesn’t exist, and after that run order “git init”. By running this order .git index will be made in the task registry, the catalog does not should be empty.

53. Why do we create branches in GIT ?

If we are all the while chipping away at various errands, tasks, deformities or highlights, we require numerous branches. In GIT we can make a different branch for each different reason.

Let say we are dealing with an element, we make a component branch for that. In the middle of we get a deformity to take a shot at then, we make another branch for imperfection and work on it. Once the deformity work is done, we combine that branch and return to chip away at include branch once more.

So taking a shot at numerous errands is the fundamental purpose of utilizing various branches

53. How will you write a message with commit command in GIT ?

We call following command for commit with a message: $/ > git commit –m < message >

54. What is stored inside a commit object in GIT ?

GIT confer question contains following data: SHA1 name: A 40 character string to recognize a submit Files: List of documents that speak to the condition of a task at a particular purpose of time Reference: Any reference to parent submit objects.

55. What is the purpose of git config command ?

We can set the design choices for GIT establishment by utilizing git config order.

56. How can we see the configuration settings of GIT installation ?

We can utilize ‘git config – list’ summon to print all the GIT arrangement settings in GIT installation.

57. What is the meaning of ‘stage’ in GIT ?

In GIT, arrange is a stage before confer. To arrange implies that the records are prepared for submission.

Let say, you are dealing with two highlights in GIT. One of the highlights is done and the other isn’t yet prepared. You need to confer and leave for home at night. Yet, you can confer. ([sap training](https://svrtechnologies.com/sap-training)) since the two are not completely prepared. For this situation, you can simply organize the element that is prepared and confer that part. The second element will stay as work in advance.

58. What does ‘git pull’ command in GIT do internally ?

In GIT, git pull inside completes a git get first and after that completes a git blend.

So pull is a blend of two orders: bring and combine.

We utilize git pull order to convey our neighborhood office fully informed regarding its remote adaptation.

59. What are the different ways to start work in GIT ?

We can begin work on GIT in following ways:

**New Project:** To make another storehouse we utilize git init order.

**Existing Project:** To chip away at a current storehouse we utilize git clone order.

60. What are the disadvantages of GIT ?

GIT has not very many weaknesses. These are the situations when GIT is hard to utilize. Some of these are:

**Binary Files:** If we have a considerable measure double records (non-content) in our venture, at that point GIT turns out to be moderate. E.g. Tasks with a lot of pictures or Word records.

**Steep Learning Curve:** It sets aside some time for a newcomer to learn GIT. A portion of the GIT summons is non-instinctive to a fresher.

**Slow remote speed:** Sometimes the utilization of remote stores in ease back because of system dormancy. Still, GIT is superior to different VCS in speed

61. What are the main benefits of GIT ?

There are following primary advantages of GIT:

⦁ **Distributed System:** GIT is a Distributed Version Control System (DVCS). So you can keep your private work in adaptation control yet totally escaped others. You can work disconnected too.

⦁ **Flexible Workflow:**GIT enables you to make your own work process. You can utilize the procedure that is appropriate for your venture. You can go for brought together or ace slave or some other work process.

⦁ **Fast:** GIT is quick when contrasted with other form control frameworks.

⦁ **Data Integrity:** Since GIT utilizes SHA1, information isn’t less demanding to degenerate.

⦁ **Free:** It is free for individual utilize. Such huge numbers of beginners utilize it for their underlying activities. It likewise works exceptionally well with substantial size task.

⦁ **Collaboration:** GIT is anything but difficult to use for ventures in which joint effort is required. Numerous prevalent open source programming over the globe utilize GIT.

62.What are git hooks ?

it snares are contents that can run consequently in the event of an occasion in a Git store. These are utilized for robotization of the work process in GIT.

Git snares likewise help in altering the inward conduct of GIT.

These are for the most part utilized for implementing a GIT confer arrangement.

63. What is the most popular branching strategy in GIT ?

There are numerous approaches to do stretching in GIT.One of the well-known routes is to keep up two branches:

**ace:** This branch is utilized for a generation. In this branch HEAD is a dependably underway prepared state.

**build up:** This branch is utilized for improvement. In this branch, we store the most recent code created in a venture.

This is work in advance code.Once the code is prepared for sending to creation, it is converted into the ace branch from creating a branch.

64. What is the HEAD in GIT ?

A HEAD is a reference to the present looked at conferring.

It is a representative reference to the branch that we have looked at.

At any given time, one head is chosen as the ‘present head’ this head is otherwise called HEAD (dependably in capitalized).