What are the advantages of using Git?

It provides the best performance when it comes to version control systems. Committing, Branching, merging all are optimized for a better performance than other systems. Git branching model have multiple local branches which are independent of each other. This enables to have friction-less context switching, role-based code and disposable experimentation.

What language is used in Git?

Predominantly C language is used in Git. Shell scripts are used for some automated tasks and linking between files.

What is the meaning of index or Staging Area in Git?

Git index is used as a staging area between working and repository. Staging is a step before the commit process in git. Commit in git is performed in two steps: Staging and actual commit. As long as a changeset is in a staging area, git allows to edit.

What is the process for creating a repository in Git?

In the upper-right corner of any page, click , and then click New repository.

Type a short, memorable name for your repository. ...

Optionally, add a description of your repository. ...

Choose to make the repository either public or private. ...

Select Initialize this repository with a README.

Click Create repository.

What is a head in Git and how many heads can be created in a repository?

Git head is a reference to the last commit in the currently check out branch. At any given time, one head is selected as the current head.

why do we need branching in a Git?

The main purpose of the branching is to achieve code isolation. Branches are often used to try out new features without disturbing the main line of development with complier errors and bugs.

Write a way to create a new branch in a Git?

At the top of the app, switch to the branch that want to base the new branch on by clicking the current branch and choosing it from the list.

Click new branch

Under Name, type the name of new branch

Select either the current branch or the default branch to base the new branch on.

Click create branch

How do you define a conflict in a Git?

Git can handle most merges on its own with automatic merging features. A conflict arises when two separate branches have made edits to the same line in a file, or when a file has been deleted in one branch but edited in the other. Conflicts will most likely happen when working in a team environment.

How do you resolve a conflict in a Git?

Resolve within Github’s web editor

Click on resolve conflict and should see the entire display of the changed files in the pull request. Notice that Git Hub has disabled the Mark as resolved button.

Resolve the conflicts in the first file you see.

If you do this correctly, you should see the button mark as resolved become available for that particular file.

If you have multiple files with conflicts, select the next file to resolve. Repeat steps two through four until you’ve resolved all of your pull requests’s merge conflicts.

Now the commit merge button is available.

Click commit merge and carry on with your merge pull request.

What is the function of ‘git config’?

The git config command is a convenience function that is used to set Git configuration values on a global or local project level. These configuration levels correspond to gitconfig text files. Executing git config will modify a configuration text file.

What is a Git Fork?

A **f**ork is a copy of a repository. Forking a repository allows you to freely experiment with changes without affecting the original project. Most commonly, forks are used to either propose changes to someone else's project or to use someone else's project as a starting point for your own idea.

Difference between fork,branch and clone?

A clone is a copy of all the code on the master branch. It is an exact replica of the code on github. A branch is a slightly changed or modified section of code that meets different objectives. Forks are local instantiations that make changes to someone else's codebase.

What is the difference between pull request and a branch?

Pull requests let you tell others about changes you've pushed to a GitHub repository. Once a pull request is sent, interested parties can review the set of changes, discuss potential modifications, and even push follow-up commits if necessary. A branch is just a separate version of the code.

What is the difference between Git pull and Git fetch?

Git fetch just "downloads" the changes from the remote to your local repository. git pull downloads the changes and merges them into your current branch. "In its default mode, git pull is shorthand for git fetch followed by git merge FETCH\_HEAD.

How to revert previous commit in Git?

git revert <commit hash>

Explain the advantages of Forking overflow.

The main advantage of the Forking Workflow is that contributions can be integrated without the need for everybody to push to a single central repository. Developers push to their own server-side repositories, and only the project maintainer can push to the official repository. This allows the maintainer to accept commits from any developer without giving them write access to the official codebase.

Difference between Head, working tree and index, in Git?

The working tree, or working directory, consists of files that you are currently working on. You can think of a working tree as a file system where you can view and modify files.

The index, or staging area, is where commits are prepared. The index compares the files in the working tree to the files in the repo. When you make a change in the working tree, the index marks the file as modified before it is committed.

Git head is a reference to the last commit in the currently check out branch. At any given time, one head is selected as the current head.

How to identify if a certain branch has been merged into master?

Need to use command like :

git branch <flag[-r/-a/none]> --merged master list of all branches merged into master.

git branch <flag[-r/-a/none]> --merged master | wc -l count number of all branches merged into master.

What is the use of a git clone?

Usage. git clone is primarily used to point to an existing repo and make a clone or copy of that repo at in a new directory, at another location.

When should I use Git stash?

Git Stash is used to record the current state of the working directory and the index, but want to go back to a clean working directory. The command saves local modifications away and reverts the working directory to match the head command.

What is a Git stash ?

Git stash temporarily shelves changes made to working copy so can work on something else, and then come back and re-apply them later on.

What is Git stash drop?

Git Stash drop command deletes the latest stash from the stack. It may be difficult to revert.

What is Git stash save?

This command is like Git stash. It stash untracked files. It will actually create a Git commit object with some name and then save it in repo.

What READE.MD? what is its purpose ? what does MD stands for?

A Readme file is a file that describes the purpose of the repository and gives hints on what the code does, how to compile/use it, etc. The .md extension stands for Markdown, which is a type of file that is both readable in plain text, but can also be easily converted to HTML to display special elements

How to create repository from command prompt?

Git create mynewrepo

Git init

Git remote add origin <https://github.com/your_github_username/$repo_name.git>

What is the function of Git checkout in Git?

It allows to navigate between the branches created by git branch.

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

Start on master

Create a new feature branch

Implement changes on that branch

Push the feature branch to remote repo

What is the function of git rm?

It is used to remove a file from a Git repository. It is a convenience method that combines the effect of the default shell rm command with git add.

What is the function of Git stash apply?

It takes a stashed change and applies it to current working tree.

What is the use of Git log?

Git log tool allows to view information about previous commits that have occurred in a project.

What is a git add used for?

The git add command adds a change in the working directory to the staging area.

What is git diff is used for?

Git diff is a multi-use Git command that when executed runs a diff function on Git data sources. These data sources can be commits, branched, files and more.

What is git status used for?

Git status command displays the state of the working directory and the staging area.

Can we create a multiple branch with one command?

Yes, we can create a multiple branch with one command.

What is the command that is used to delete a branch?

$git branch -d dhak

Deleted branch dhak (was 37351a0)

What is the another option for merging in a git ?

Rebase is an alternative means of integration.

How to remove a file from git without removing it from your file system?

#git rm-rf—cached $ FILES

Use of git rebase instead of git merge?

Use rebase to keep a linear commit history.

What is a repository in Git?

The purpose of Git is to manage a project, or a set of files, as they change over time. Git stores this information in a data structure called a repository.

Command used to write a commit message?

[Separate subject from body with a blank line](https://chris.beams.io/posts/git-commit/#separate)

[Limit the subject line to 50 characters](https://chris.beams.io/posts/git-commit/#limit-50)

[Capitalize the subject line](https://chris.beams.io/posts/git-commit/#capitalize)

[Do not end the subject line with a period](https://chris.beams.io/posts/git-commit/#end)

[Use the imperative mood in the subject line](https://chris.beams.io/posts/git-commit/#imperative)

[Wrap the body at 72 characters](https://chris.beams.io/posts/git-commit/#wrap-72)

[Use the body to explain what and why vs. how](https://chris.beams.io/posts/git-commit/#why-not-how)

What does commit object contain?

The commit object contains the directory tree object hash, parent commit hash, author, committer, date and message.

Write one use case of Git hub?

Teamwork

Name some alternative of Git?

CVS (Concurrent Versions System), Git center, Tracs, darcs, Bazaar, Fossil, Apache Subversion, Mercurial SCM

What is a gist programming?

It is written in C language.

What is a gist in a git?

It is an additional feature added to github to allow the sharing of code snippets, notes to do lists and more.

Name any two Git repository hosting services which are common?

Gitlab, Bitbucket, Source Forge, Launchpad.