**GIT Interview Questions:**

1. What is git? How did you use Git?

Git is a version control system that allow multiple individuals to work in the same project in parallel. This feature gives the ability to the team to work effectively and speed up the delivery. Git provides many features from tracking history by knowing who did what and when it happened and retrieve data in case was deleted by someone. Scalability is important in git because we don’t have a centralized server. Centralized server creates a huge delay when the bottleneck happens or crashes because is a point of failure. In this case the team will have to wait until the server come back in function to get the last code.

We use git in stage of distributed control system. That means that git has a remote repository which is stored in the server and each developer’s computer. The individual creates a repository through github which is a host service for git. After creating a repository, we use bash which is a Linux commands that help us executing the work.

1. What are different stages of git? Walk me through the stages?

There are four different stages:

Working directory is where we clone the files from a remote repository to store it in our computer.

Staging area is when we will add multiple files to a clone repository that we have copied in our machine. Any file which is not added to the staging area will not be committed.

A localrepo is the process where we commit. This means that the file is added to the local repository.

Finally remote repo is where we push our files from local machine to the remote repository.

1. How to revert a git commit? 2 ways?

The first option is to go to git hub and copy the clipboad or the hash and use this command in git bash:

git revert hashId

The second option is to used git with reset, this will revert the previous commit. Git reset –hard HEAD~1

1. What is the difference between git pull, fetch and merge in GIT?

The remote repository code is updated continuously and constantly by various developers, so git pull is a command to use to pull the latest updated program.

A git merge is to combine multiple separate branches into one main branch to integrate the changes.

A git fetch is basically a command that tells our local machine to check if there are any changes from the original repository.

1. How will you use git merge command?

Before executing the merge command, we need to make sure that we are in

current branch which we want to integrate into other branch then we implement these two commands.

Git checkout “master example”

Git merge “the branch that we want to merge with master”

1. What to do if you want to submit the code change?

To submit the code change, we add the file that has been changed then commit the change, finally we push the file. For example, we made a change to the file named student.

Git add student

Git commit -m “The change has been made to this file”

Git push

1. What is a merge request? How do you raise a merge request?

A merge request can be used to interchange the code between team members. With A merge requests when we work in a separate branch, then before merging into that branch with the rest of the branches, we request a merge request. For example, when we work in multiple branches, I could pull one of those branches, make some modifications then I will request the team for a merge so I can push again that branch to the other branches.

1. Were you managing GIT in your last project?

Yes, we did manage git in my last project. Created re

1. What is merge conflict? and how do you resolve it?

A merge conflict occurs when git is unable to resolve differences in code between two commits that have been done in the same line(s). For example, when the changes happen in the same line the git does not know which commit to keep and which one to discard.

To solve merge conflict, after we will be notified to what is happening in both branches, then we use git merge --abort get out from both branches. This will take us to where we were before merging the two branches. We merge to one of the branches that we changed, navigate to the file that created a merge conflict by accepting both changes, or one of those changes, depends on what has been suggested to us. After this task is done, we use git add to add the fixed file and git commit as message to mark the issue has been solved.

1. How do you create branches in GIT? What is the branch used for?

To create a new branch in git by implementing git branch Name. This Name can be anything that developer will choose. The branches are used in a way to keep developing and coding a new feature or modification to the software and still not affecting the main part of the project. We can also say that branches create another line of development in the project. For example, a tree has multiple branches, those branches can be generated, fall off but the core trunk is remained the same. Which is the only way to know that the tree is still alive. The same as branches in git, we can create multiple branches to isolate the work one for developing, other for testing, so on and so forth.

1. What branching strategy have you been utilizing in GitHub/git?

I have been using master branch strategy in GitHub.

1. What is Webhook in GIT?

Webhook in git is a mechanism that trigger in changes happening in the repository. This method keeps us aware of what might happen in the future common project. Each time the repository changes, we will get notified automatically.

1. What is Cherry Picking in GIT?

Cherry picking in git brings in changes from a specific commit. In case I made a mistake and committed a change into the wrong branch, but I do not want to merge the whole branch. One possibility is that I can revert the commit and apply it on another branch.

1. What is GIT Rebase? What did you use in your last project? Rebase or Merge? Why?

Rebasing is the process of moving or combining a series of commits to a new base commit. Rebasing is changing the base of the current branch from one commit to another making it appears as it is created a branch from a different commit. In the last project I used merge because I am more comfortable with it. Rebase and merge git solve the same problem, and both are designed to integrate from one into another.

1. What is Git Stash?

Git stash takes uncommit changes and save them for later use. This git stash command allows user to switch into other context and work on something else.

1. How does GIT connect to Jenkins? which protocol does it use?

Jenkins is connected to git by either way, manage plugins to install git or install it through git using yum install git into jenkins server. The protocol jenkins uses to manage distributed builds that is through the communication TCP/IP using ports 80, 8080, 443 is secure connection as web server.