What is git? Give us a brief history on it.

Git is an open source, distributed version control system designed for speed, non-linear development, fully distributed and handle large project efficiently. Git was developed in 2005 by the Linux kernel development community.

What are the differences between git and SVN?

The main difference about git compared to svn is that it is decentralized. Unlike svn, git allows us to commit files to our local repository without using the internet. Once an internet connection is reestablished, the user would be able to commit that work to the main repository. Git also allows better support branching and merging and handling errors with easy fixes.

What is the purpose of the .gitignore file?

The main purpose of the .gitgnore file is ensure certain files will remained untracked by Git. This useful because during program build certain files are generated automatically so .gitgnore allows not keep logs of those change in your repository version history.

Explain the following commands:

* Commit- Takes all of the changes written in the index, creates a new commit object pointing to it and sets the branch to point to that new commit.
* Push- Pushes all the modified local objects to the remote repository and advances its branches
* Pull- Fetches the files from the remote repository and merges it with your local one.
* Merge- Merges one or more branches into your current branch and automatically creates a new commit if there are no conflicts.
* Rebase- Rebasing is the process of moving a branch to a new base commit.
* Fetch- Fetches all the objects from the remote repository that are not present in the local one.

What is the stash, and how is it used?

* Stash is a temporary place where modified tracked files and staged changes are saved for future use.
* the method to using it is, just run “git stash” when you want to switch branches but don’t want to commit what you have been working on yet.

What GUI programs are available for Windows? Mac?

* Some GUI programs are
  + Source Tree (available both for Windows and Mac)
  + Git Extensions(for Windows)
  + GitX-dev (for Mac)
  + GitHub (both for Windows and Mac)

What repository providers are available online?

* Bitbucket
* GitHub
* GiTorious

What are best practices for branching when developing several features at once?

Feature based workflow (as termed by git-scn.com):

A branch is created for each individual feature to be developed

Once the feature is complete it is merged into the main branch and

The distinct feature branch is deleted

This practice allows for easy switching between features in progress

In addition to making it easy to see what features still need work

http://git-scm.com/about

What is and how do you make a pull request?

A pull request fetches changes that are made to the remote repository by others. Then git will try to merge the changes to the current branch you using in your local repository.

Example: git pull origin

Give an example of how to:

Fork a public, open-source, project for your use

Merge an update to that project into your fork

Creating and merging a pull request into a repository