Some conceptual questions

1. How does Git use the SHA-1 hash?

The SHA-1 hash is a checksum of the file that we are storing plus the header. GIT LOG returns the sha1 hashes of the files that have been uploaded, and the web site should have the same hash values. If not, then the data was corrupted in transit.

1. Explain the 3 states: modified, staged and committed.

Modified means the file has been changed but the file is not committed to the local database yet.

Staged means a file has been marked to be committed.

Committed means the data is stored in the local data base.

1. What is the working directory? What does is mean for files to be tracked or untracked?
2. What is a remote repository?

Scavenger hunt. What is the command to:

1. start tracking an existing project (i.e., set up a repository)
2. specify that you want to track the file README.txt
3. specify you want to track all java source files (assume you are in the src directory)
4. determine which files are in which state (e.g., untracked, changed, etc.)
5. rename a file from README to README.txt
6. assume the file code.java is being tracked, and you have modified it. What is the command to stage it?
7. assume you want to know what changes you've made (but have not yet staged) since your last commit (i.e., you want to know what files you should add so that all modified files are staged). What command do you use?
8. assume the file junk.java is being tracked by Git. What is the command to remove this file from both your tracked files and your working directory? What is the command to remove the file from being tracked, but *not* from your working directory?
9. view of list of the commits in the repository
10. view only the last 2 commits to the repository
11. view only changes committed since Sept 1 of this year
12. view only changes you committed
13. unstage the file blah.java
14. add a remote server. Use the shortname demos. Use the url: git://github.com/CyndiRader/JavaDemos.git
15. list the remote servers you have configured
16. get a copy of an existing Git repository stored at git://github.com/crader@mines.edu/DemoJava.git

A few more questions

1. In what situation would a file be listed by git status as both staged and unstaged?
2. Explain the two uses of the command git add
3. What is the purpose of .gitignore? What types of files might you want to list in that file?
4. What would the command git checkout -- myCode.java do? Why should you use git checkout with extreme caution?