**Lab no. 1**

**Q1.** What is GIT?

**Ans. Git** is a free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency. **Git** is easy to learn and has a tiny footprint with lightning fast performance.

**Q2.** What is the difference between GIT and SVN?

**Ans.** Git is a version control system. It has a centralized server and repository. It can protect data better then SVN. While SVN is the total opposite of git, before 2010, SVN was a very popular version control system. It was then that GIT began to gain more popularity it had no centralized server and repository and in it the data was much unsafe then git.

**Q3.** Write a command to commit your work in GIT?

**Ans.** git commit -m "first commit".

**Q4.** Create a repository with your name with unique roll number in GitHub?

**Ans.** git remote add origin <https://github.com/AliAhmed1/Ali-161.git>.

**Q5.** What are the advantages of using Git?

**Ans.** One of the advantages of git is, it can create branches, which are easy to merge. In git instead of working copy, each developer gets their own local repository with full history of commits.

**Q6.** What is a GIT clone?

**Ans. Git Clone** create a repository into a newly created directory, creates remote-tracking branches for each branch in the **cloned** repository and creates and checks out an initial branch equal to the **cloned** repository's currently active branch.

**Q7.** What is the command to delete branch?

**Ans.** The command to delete a local branch

git branch –d the\_local\_branch.

the command to delete a remote branch

git push –d the \_remote\_branch.

**Q8.** Explain the architecture of Git in your own words?

**Ans.** File is sent from local PC to remote where it is converted to clone then goes to working copy then travels to work stage then back to local again. The procedure is as follows:

* Clone
* Remote
* Local

**Q9.** How to resolve conflicts in Git ?

Ans. This occurs because git knows there are changes in either your working directory or staging area that could be written over by the files that you are merging in. If this happens, there are no merge conflicts in individual files. You need to modify or stash the files it lists and then try to do a git pull again.

**Q10.** Name the different vendors that are working on VCS.

Ans. 1) Git

2) SVN

3) Mercurial