CS241 : Assignment III

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Submission Due: September 4, 2018

September 2, 2018

This assignment will make you learn git, a free and open source version control system. The assignment contains many basic problems related to the git repository.

Problem 1

Initialize a git repository either on your own machine or friend's machine (**Hint**: use ssh) with one file (say hello.c containing a hello world program) inside it. Once the repository is set up do the commit operation. Report the commands you used for the initialize and commit purpose.

Problem 2

Clone a repository from the remote machine to your local machine (or to some other folder if you establish a git repository inside your machine). Report the command.

follow up commands: For the further problems, only the clone operations are performed on your local machine other than that all the git related operations are performed in the remote machine by using ssh (in case you establish a repository inside the local machine all the further operations other than the clone is performed in the git repository)

Problem 3

Check the status of your repository (once the clone is performed in the remote machine). See whether there are any changes involved in the git directory.

Problem 4

Compile the hello.c program in the git directory and check the status of the repository. Report the differences from the previous status.

Follow up commands: add untracked file(s) from the previous problem into your git repository.

Problem 5

Make some random changes in the hello world program and check the status of

repository. Report the differences from the previous status.

Follow up commands: add the file that is not yet staged into your git repository and check the status.

Problem 6
Suppose you remember one last minute small change that you want to make in hello.c before you commit it. Open it again and make the random changes and check the status.

Problem 7
Now, commit the git repository and again perform the clone onto your local machine. Check whether the hello.c file contains the same changes that you made at the last minute. If it is not, report the reason.

Problem 8
Write a command to see what you have changed but not yet staged into your repository.

Follow up commands: Add the unstaged file and then commit the git repository. Clone the repository onto your local machine.

Problem 9
Make two copies of the binary a.out file and add these files in the git repository and perform the commit. Remove one a.out file normally (using rm command) and check git status and remove another a.out file with git rm command and check git status. Report the differences in both the git status.

Problem 10
Write a command to undo the git repository to the last commit and check the status of a repository.

Follow up command: Clone the repository onto your local machine and observe the changes.

Problem 11
Write a command to undo the git repository to first commit using commit id.

Follow up command: Clone the repository onto your local machine and observe the changes.

Problem 1-11 are some set of problems. During the evaluation, we may ask a similar kind of questions. For the doubts in the assignment, you can contact to Sukarn (webmail: sukarn).