Introduction to Version Control 05-Feb-2019
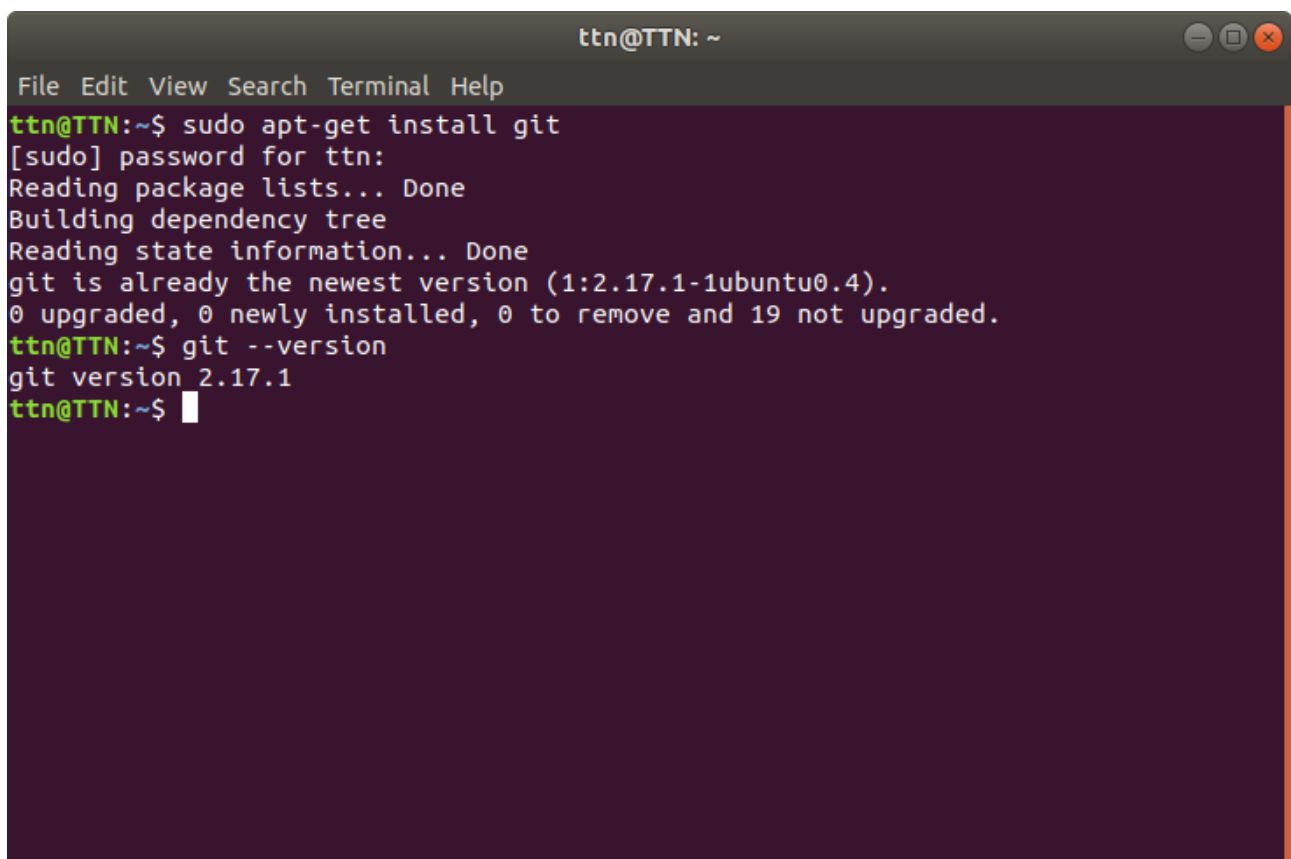
Q1.

To install git

sudo apt-get install git

To check version of git

git --version
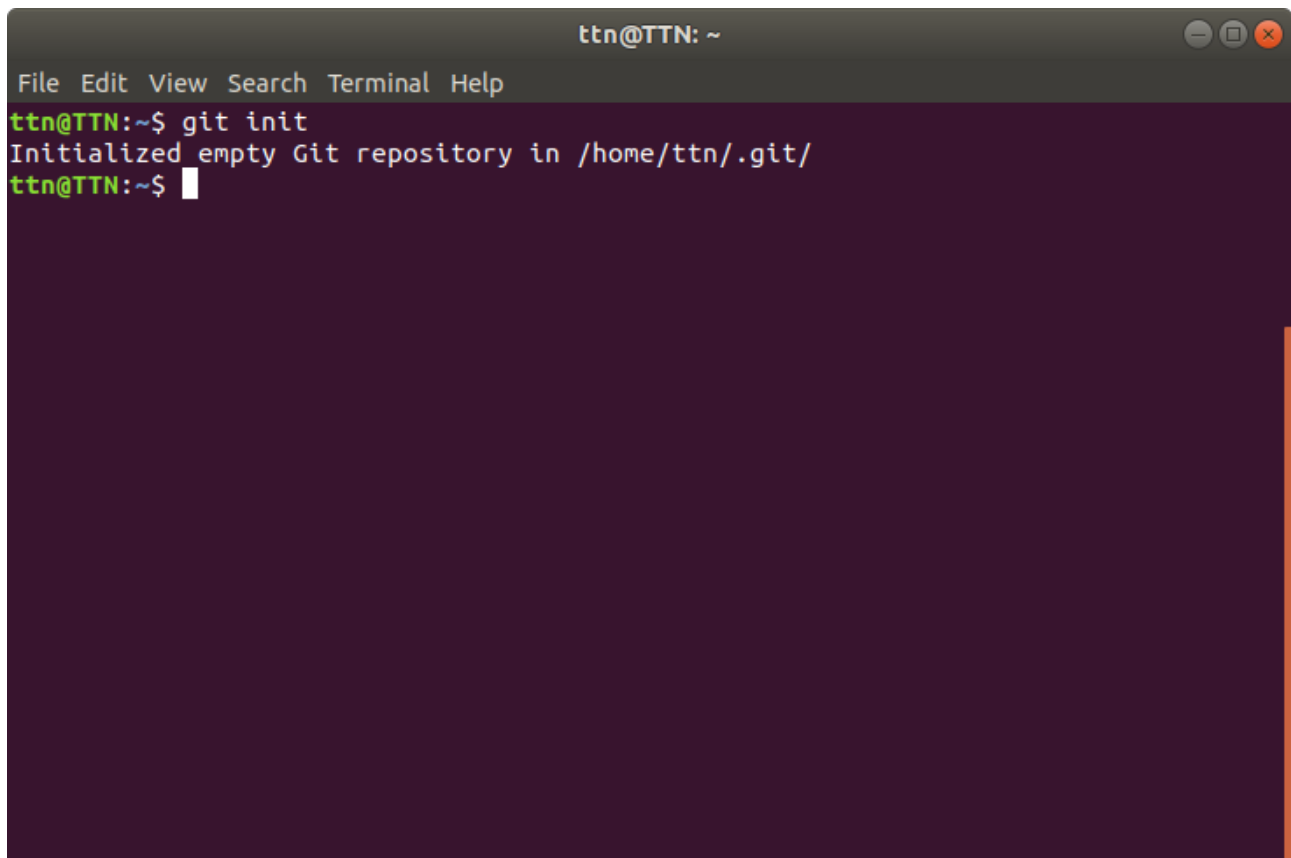

Q2.

To initialise git

git init

Q3.

Add the files in your new local repository

firstly create a file

touch file1

add Command

git add file1

```
root@TTN:/temp/projects/VCassignment# touch file1
root@TTN:/temp/projects/VCassignment# ll
total 12
drwxr-xr-x 3 root root 4096 Feb  5 17:23 ./
drwxr-xr-x 4 root root 4096 Feb  5 17:22 ../
-rw-r--r-- 1 root root    0 Feb  5 17:23 file1
drwxr-xr-x 7 root root 4096 Feb  5 17:22 .git/
root@TTN:/temp/projects/VCassignment# git add file1
root@TTN:/temp/projects/VCassignment# git staus
git: 'staus' is not a git command. See 'git --help'.

The most similar command is
        status
root@TTN:/temp/projects/VCassignment# git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

        new file:   file1

root@TTN:/temp/projects/VCassignment#
```

Q4.

command

git rm --cached file1

```
                        root@TTN: /temp/projects/VCassignment

 File  Edit  View  Search  Terminal  Help
root@TTN:/temp/projects/VCassignment# git rm --cached file1
rm 'file1'
root@TTN:/temp/projects/VCassignment# get status

Command 'get' not found, but there are 18 similar ones.

root@TTN:/temp/projects/VCassignment# git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        file1

nothing added to commit but untracked files present (use "git add" to track)
root@TTN:/temp/projects/VCassignment#
```

Q5.
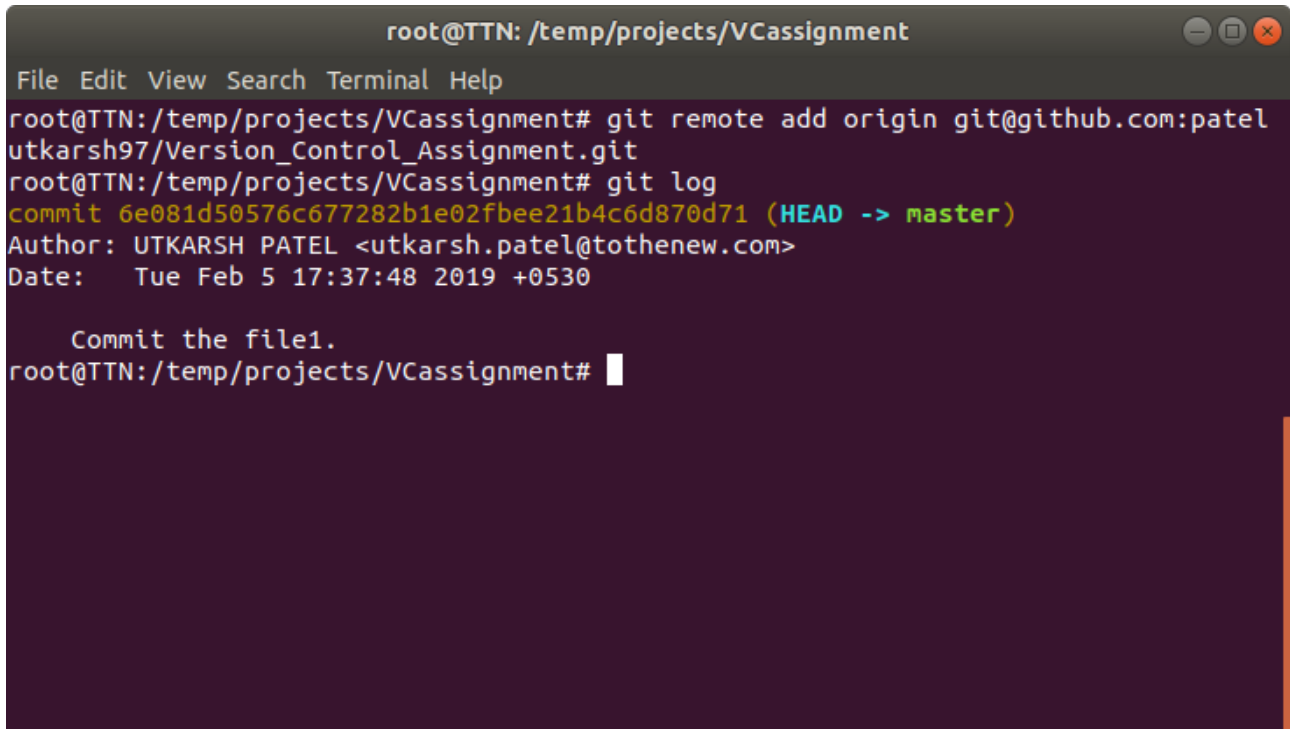
command for localhost

git comit -m "Message"

command for server

git remote add/set-url remote repo

Q6.

command

git remote add origin git@github.com:patelutkarsh97/Version_Control_Assignment.git

```
root@TTN: /temp/projects/VCassignment
File  Edit  View  Search  Terminal  Help
root@TTN:/temp/projects/VCassignment# git remote add origin git@github.com:patel
utkarsh97/Version_Control_Assignment.git
root@TTN:/temp/projects/VCassignment# git log
commit 6e081d50576c677282b1e02fbee21b4c6d870d71 (HEAD -> master)
Author: UTKARSH PATEL <utkarsh.patel@tothenew.com>
Date:   Tue Feb 5 17:37:48 2019 +0530

    Commit the file1.
root@TTN:/temp/projects/VCassignment#
```

Q7.

command

git checkout -- file1

```
root@TTN: /temp/projects/VCassignment
File  Edit  View  Search  Terminal  Help
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        modified:     file1

root@TTN:/temp/projects/VCassignment# cat file1
Hello
Thanks
Bye
Testing

root@TTN:/temp/projects/VCassignment# git stash
Saved working directory and index state WIP on master: 6e081d5 Commit the file1.
root@TTN:/temp/projects/VCassignment# git status
On branch master
nothing to commit, working tree clean
root@TTN:/temp/projects/VCassignment# git checkout -- file1
root@TTN:/temp/projects/VCassignment# cat file1
root@TTN:/temp/projects/VCassignment#
```

Q8.

command

git push origin master

```
ttn@TTN: /temp/projects/VCassignment

File  Edit  View  Search  Terminal  Help

ttn@TTN:/temp/projects/VCassignment$ git push origin master
Warning: Permanently added the RSA host key for IP address '192.30.253.113' to t
he list of known hosts.
Counting objects: 3, done.
Writing objects: 100% (3/3), 227 bytes | 227.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To github.com:patelutkarsh97/Version_Control_Assignment.git
 * [new branch]      master -> master
error: update_ref failed for ref 'refs/remotes/origin/master': cannot lock ref '
refs/remotes/origin/master': unable to create directory for .git/refs/remotes/or
igin/master
ttn@TTN:/temp/projects/VCassignment$
```

Q9.

command

git clone git@github.com:patelutkarsh97/Version_Control_Assignment.git

```
ttn@TTN:/temp/projects/VCassignment$ git clone git@github.com:patelutkarsh97/Ver
sion_Control_Assignment.git
Cloning into 'Version_Control_Assignment'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Receiving objects: 100% (3/3), done.
ttn@TTN:/temp/projects/VCassignment$
```

Q10.

Command

mkdir -p newfolder

git clone git@github.com:patelutkarsh97/Version_Control_Assignment.git

now go to original (Vcassignment) folder and pull allthe changes

git pull origin master

Q11.

Command

git diff --staged HEAD file1
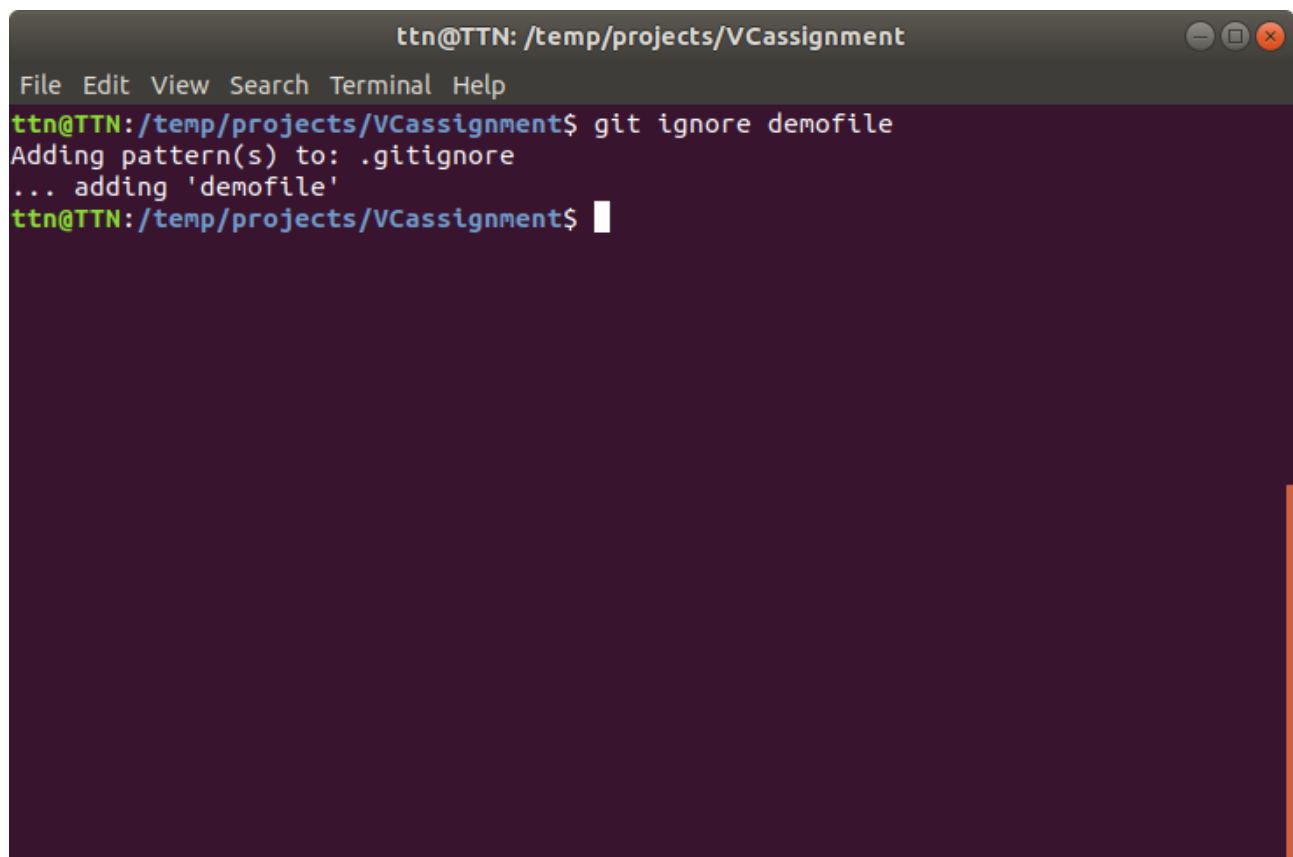
Q12.

Prerequisites
sudo apt-get install git-extras

Command

git ignore filename

Q13.

Command

git checkout -b [name_of_new_branch]

```
ttn@TTN: /temp/projects/VCassignment

File Edit View Search Terminal Help
ttn@TTN:/temp/projects/VCassignment$ sudo git checkout -b newBranch
M       .gitignore
Switched to a new branch 'newBranch'
ttn@TTN:/temp/projects/VCassignment$ ▊
```

Q14.

adding file2 in newbranch and then checking the master branch

Q15.

Follow the command on terminal

Q16.

Try to merge using command

git merge master

and then resolve the conflict

ttn@TTN: /temp/projects/VCassignment

File Edit View Search Terminal Help

```
ttn@TTN:/temp/projects/VCassignment$ sudo git merge master
Auto-merging file2
CONFLICT (add/add): Merge conflict in file2
Automatic merge failed; fix conflicts and then commit the result.
ttn@TTN:/temp/projects/VCassignment$ sudo git add .
ttn@TTN:/temp/projects/VCassignment$ sudo commit -m "Resolve merge conflicts"
sudo: commit: command not found
ttn@TTN:/temp/projects/VCassignment$ sudo git commit -m "Resolve merge conflicts
"
[newBranch 6da17cd] Resolve merge conflicts
ttn@TTN:/temp/projects/VCassignment$ sudo git merge master
Already up to date.
ttn@TTN:/temp/projects/VCassignment$ ▊
```

Q17.

Firstly modify any file to create conflict
then check the

 git status

then put the confilicting file into stash using command

git stash save -u

after that drop the stash using command

git stash pop

```
ttn@TTN:/temp/projects/VCassignment$ sudo vim demofile
ttn@TTN:/temp/projects/VCassignment$ git status
On branch newBranch
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   demofile

no changes added to commit (use "git add" and/or "git commit -a")
ttn@TTN:/temp/projects/VCassignment$ sudo git stash save -u
Saved working directory and index state WIP on newBranch: 6da17cd Resolve merge conflicts
ttn@TTN:/temp/projects/VCassignment$ git status
On branch newBranch
nothing to commit, working tree clean
ttn@TTN:/temp/projects/VCassignment$ sudo git stash pop
On branch newBranch
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        modified:   demofile

no changes added to commit (use "git add" and/or "git commit -a")
Dropped refs/stash@{0} (315691aed80d9b9cb104e3d2215f7d490a35e8bc)
ttn@TTN:/temp/projects/VCassignment$
```
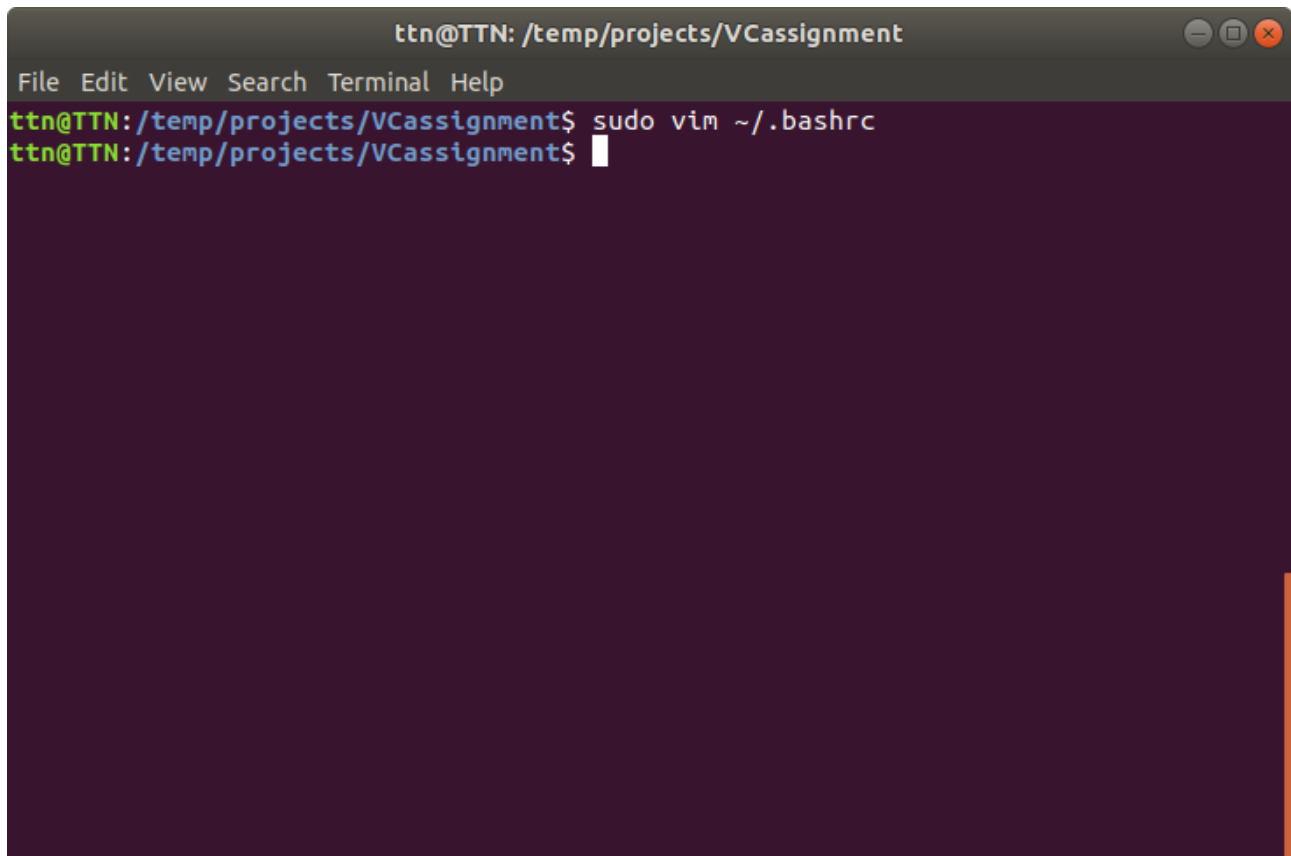
Q18.

Command to edit .bashrc file using vim

vim ~/.bashrc

then to insert press *i*

and to save and quit vim press

ESC :wq