1. Git Setup https://confluence.atlassian.com/bitbucket/set-up-git-744723531.html

2. Initialize a Git Repository

3. Add files to the repository


```
root@ttn:/home/ttn/exercise/github# git remote add origin git@github.com:anmol-duggal/test_repo.git
root@ttn:/home/ttn/exercise/github# ls
root@ttn:/home/ttn/exercise/github# git pull origin master
remote: Enumerating objects: 7, done.
remote: Counting objects: 100% (7/7), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 7 (delta 0), reused 4 (delta 0), pack-reused 0
Unpacking objects: 100% (7/7), done.
From github.com:anmol-duggal/test_repo
 * branch            master     -> FETCH_HEAD
 * [new branch]      master     -> origin/master
root@ttn:/home/ttn/exercise/github# ls
test
root@ttn:/home/ttn/exercise/github# cd test
-su: cd: test: Not a directory
root@ttn:/home/ttn/exercise/github# cat test
initialize
root@ttn:/home/ttn/exercise/github# vim newfile
root@ttn:/home/ttn/exercise/github# git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        newfile

nothing added to commit but untracked files present (use "git add" to track)
root@ttn:/home/ttn/exercise/github# git add newfile
root@ttn:/home/ttn/exercise/github# git commit -m "New file added"
[master 8f91ad8] New file added
 1 file changed, 1 insertion(+)
 create mode 100644 newfile
root@ttn:/home/ttn/exercise/github# git push origin master
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 281 bytes | 281.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To github.com:anmol-duggal/test_repo.git
```

4. Unstage 1 file


```
root@ttn:/home/ttn/exercise/github# vim file1.txt
root@ttn:/home/ttn/exercise/github# git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        file1.txt

nothing added to commit but untracked files present (use "git add" to track)
root@ttn:/home/ttn/exercise/github# git add file1.txt
root@ttn:/home/ttn/exercise/github# git status
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        new file:   file1.txt

root@ttn:/home/ttn/exercise/github# git checkout file1.txt
root@ttn:/home/ttn/exercise/github# git status
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        new file:   file1.txt

root@ttn:/home/ttn/exercise/github# git reset HEAD file1.txt
root@ttn:/home/ttn/exercise/github# git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        file1.txt

nothing added to commit but untracked files present (use "git add" to track)
root@ttn:/home/ttn/exercise/github#
```
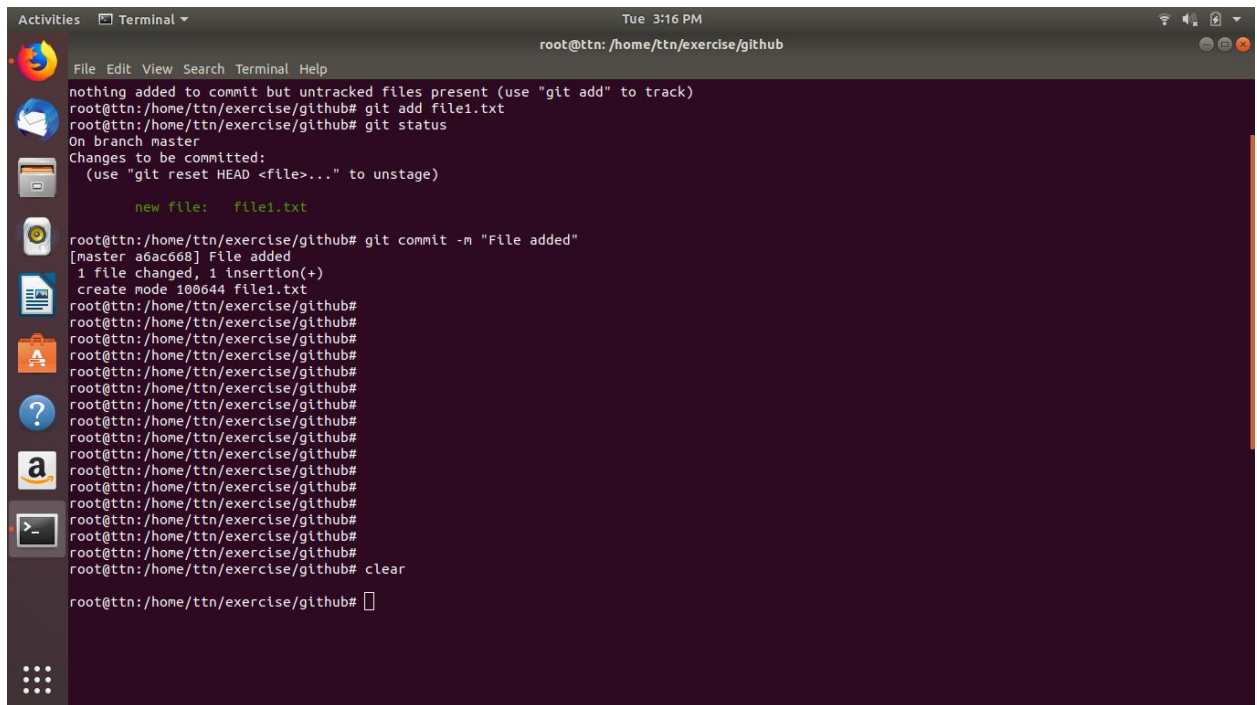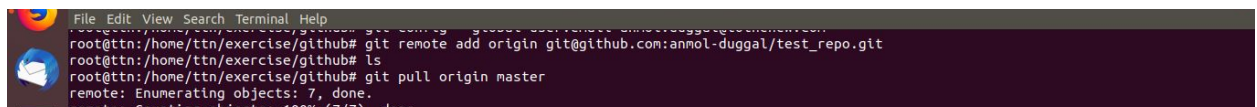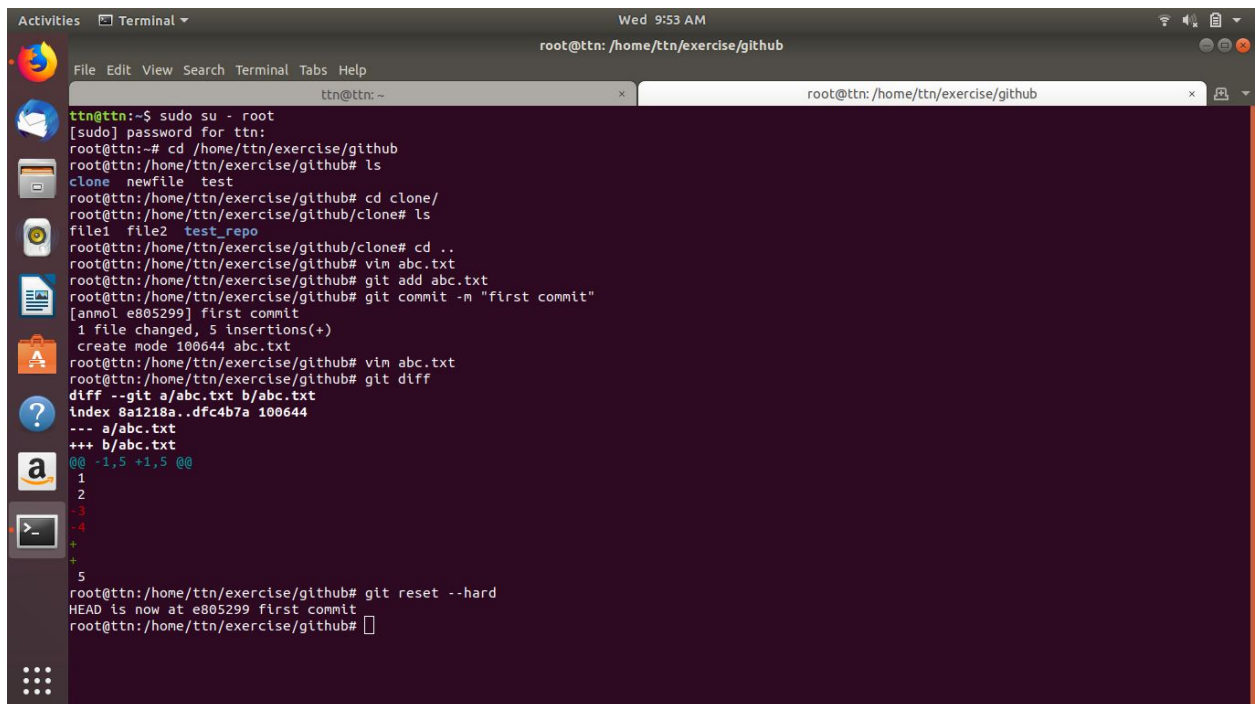
5. Commit the file

6. Add a remote

7. Undo changes to a particular file

8. Push changes to Github

```
root@ttn:/home/ttn/exercise/github# git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        newfile

nothing added to commit but untracked files present (use "git add" to track)
root@ttn:/home/ttn/exercise/github# git add newfile
root@ttn:/home/ttn/exercise/github# git commit -m "New file added"
[master 8f91ad8] New file added
 1 file changed, 1 insertion(+)
 create mode 100644 newfile
root@ttn:/home/ttn/exercise/github# git push origin master
Counting objects: 3, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 281 bytes | 281.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To github.com:anmol-duggal/test_repo.git
```

9. Clone the repository

```
Activities    Terminal                           Tue 3:30 PM

                    root@ttn: /home/ttn/exercise/github/clone

File Edit View Search Terminal Help
root@ttn:/home/ttn/exercise/github# mkdir clone
root@ttn:/home/ttn/exercise/github# cd clone/
root@ttn:/home/ttn/exercise/github/clone# git clone git@github.com:anmol-duggal/test_repo.git
Cloning into 'test_repo'...
remote: Enumerating objects: 14, done.
remote: Counting objects: 100% (14/14), done.
remote: Compressing objects: 100% (7/7), done.
remote: Total 14 (delta 1), reused 10 (delta 0), pack-reused 0
Receiving objects: 100% (14/14), done.
Resolving deltas: 100% (1/1), done.
root@ttn:/home/ttn/exercise/github/clone#

Terminal
```

10. Add changes to one of the copies and pull the changes in the other.

11. Check differences between a file and its staged version

12. Ignore a few files to be checked in

```
root@ttn: /home/ttn/exercise/github/clone/test_repo
File  Edit  View  Search  Terminal  Tabs  Help
root@ttn:/home/ttn/exercise/github/clone/test_repo# touch .gitignore
root@ttn:/home/ttn/exercise/github/clone/test_repo# touch abc
root@ttn:/home/ttn/exercise/github/clone/test_repo# vim .gitignore
root@ttn:/home/ttn/exercise/github/clone/test_repo# git add abc
The following paths are ignored by one of your .gitignore files:
abc
Use -f if you really want to add them.
```
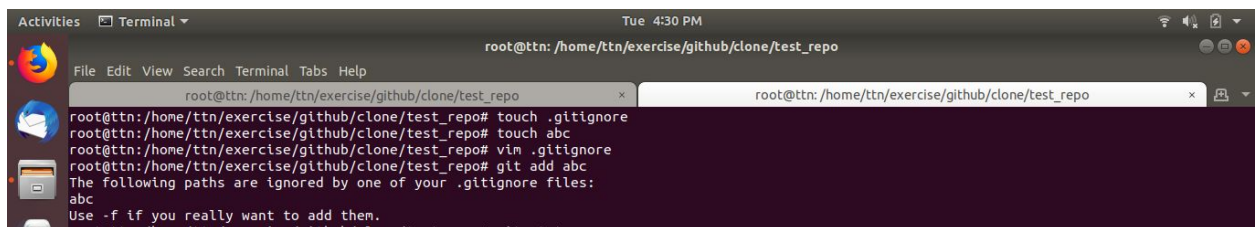
13. Create a new branch.

```
root@ttn: /home/ttn/exercise/github/clone
File  Edit  View  Search  Terminal  Help
root@ttn:/home/ttn/exercise/github/clone# git branch anmol
root@ttn:/home/ttn/exercise/github/clone# git branch
  anmol
* master
root@ttn:/home/ttn/exercise/github/clone#
```

14. Diverge them with commits


```
root@ttn:/home/ttn/exercise/github/clone/test_repo# ls
file  newfile  test
root@ttn:/home/ttn/exercise/github/clone/test_repo# git add file
root@ttn:/home/ttn/exercise/github/clone/test_repo# git commit -m "file added in branch anmol"
On branch master
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)

nothing to commit, working tree clean
root@ttn:/home/ttn/exercise/github/clone/test_repo# git branch
* master
root@ttn:/home/ttn/exercise/github/clone/test_repo# git checkout -b anmol
Switched to a new branch 'anmol'
root@ttn:/home/ttn/exercise/github/clone/test_repo# git branch
* anmol
  master
root@ttn:/home/ttn/exercise/github/clone/test_repo# ls
file  newfile  test
root@ttn:/home/ttn/exercise/github/clone/test_repo# git add file
root@ttn:/home/ttn/exercise/github/clone/test_repo# git commit -m "file added in branch anmol"
On branch anmol
nothing to commit, working tree clean
root@ttn:/home/ttn/exercise/github/clone/test_repo#
```
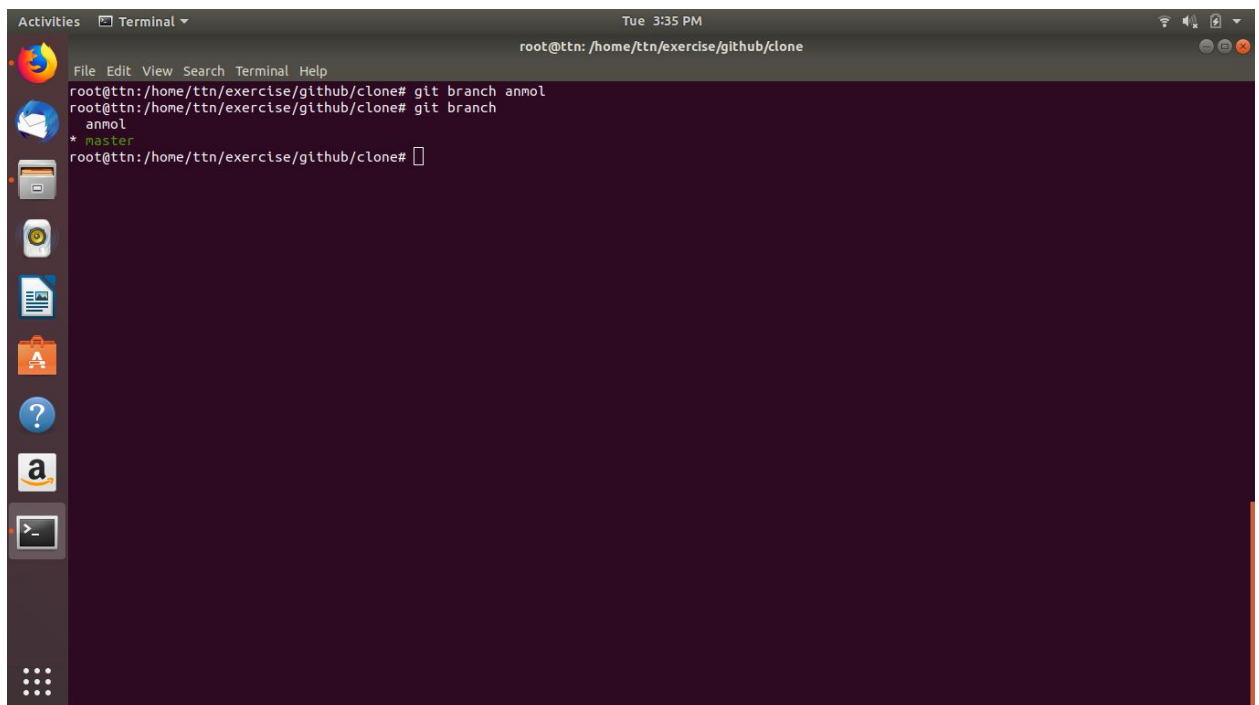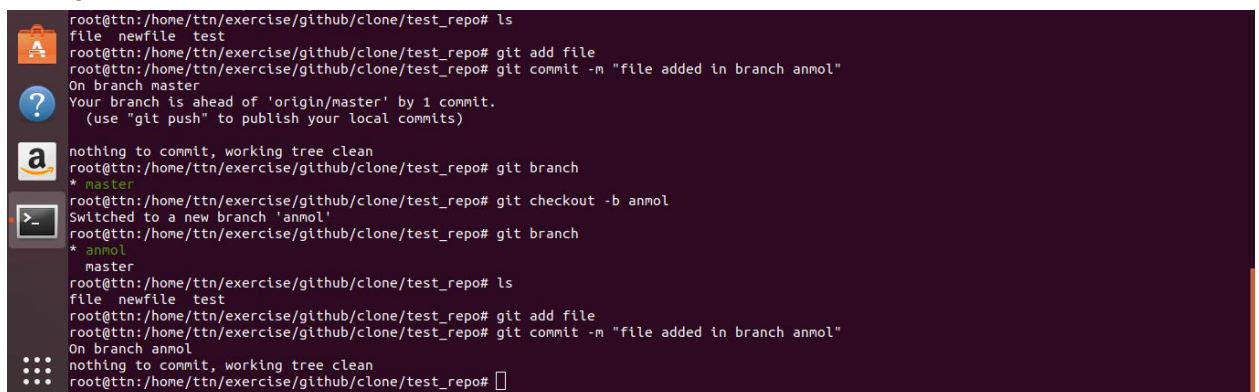
15. Edit the same file at the same line on both branches and commit

16. Try merging and resolve merge conflicts


```
root@ttn:/home/ttn/exercise/github/clone/test_repo# git branch
* anmol
  master
root@ttn:/home/ttn/exercise/github/clone/test_repo# vim file
root@ttn:/home/ttn/exercise/github/clone/test_repo# git commit -ma "edited the file"
error: pathspec 'edited the file' did not match any file(s) known to git.
root@ttn:/home/ttn/exercise/github/clone/test_repo# git commit -ma file
[anmol b8876f7] a
 1 file changed, 1 insertion(+)
root@ttn:/home/ttn/exercise/github/clone/test_repo# git checkout master
Switched to branch 'master'
Your branch is ahead of 'origin/master' by 1 commit.
  (use "git push" to publish your local commits)
root@ttn:/home/ttn/exercise/github/clone/test_repo# vim file
root@ttn:/home/ttn/exercise/github/clone/test_repo# git commit -ma file
[master 8916e91] a
 1 file changed, 1 insertion(+)
root@ttn:/home/ttn/exercise/github/clone/test_repo# git branch
  anmol
* master
root@ttn:/home/ttn/exercise/github/clone/test_repo# git checkout anmol
Switched to branch 'anmol'
root@ttn:/home/ttn/exercise/github/clone/test_repo# git merge master
Auto-merging file
CONFLICT (content): Merge conflict in file
Automatic merge failed; fix conflicts and then commit the result.
root@ttn:/home/ttn/exercise/github/clone/test_repo# vim file
root@ttn:/home/ttn/exercise/github/clone/test_repo# git merge master
```

17. Stash the changes and pop them

```
Saved working directory and index state WIP on boot2: 82b7590 Branch data pushed.
ttn@ttn:~/bootcamp/clonebootcamp/bootcamp$ git stash pop
On branch boot2
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:   testing

no changes added to commit (use "git add" and/or "git commit -a")
Dropped refs/stash@{0} (e14193026791b13cee4417a29d25e8b0ff399b18)
ttn@ttn:~/bootcamp/clonebootcamp/bootcamp$ git status
On branch boot2
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:   testing

no changes added to commit (use "git add" and/or "git commit -a")
ttn@ttn:~/bootcamp/clonebootcamp/bootcamp$ vim testing
```
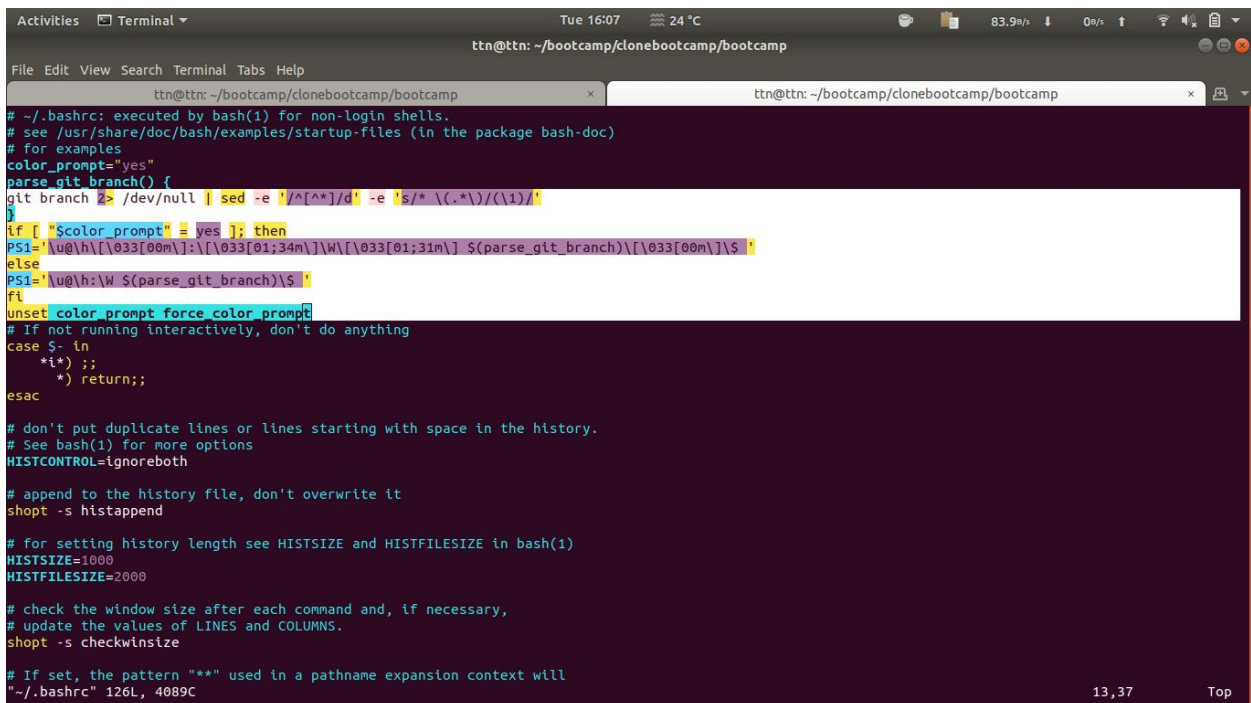
18. Add the following code to your .bashrc file : color_prompt="yes"

```
parse_git_branch() {
git branch 2> /dev/null | sed -e '/^[^*]/d' -e 's/* \(.*\)/(\1)/'
}
if [ "$color_prompt" = yes ]; then
PS1='\u@\h\[\033[00m\]:\[\033[01;34m\]\W\[\033[01;31m\] $(parse_git_branch)\[\033[00m\]\$ '
else
PS1='\u@\h:\W $(parse_git_branch)\$ '
fi
unset color_prompt force_color_prompt
```