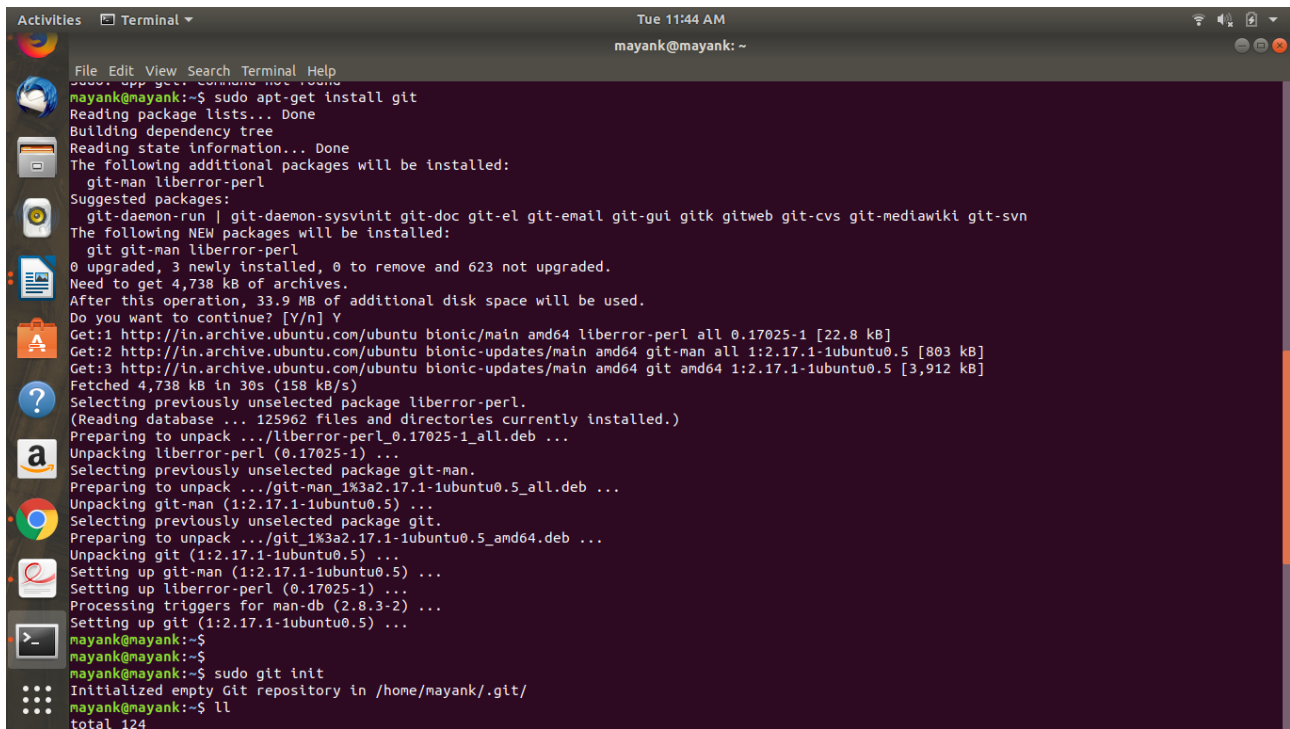


GIT ASSIGNMENT

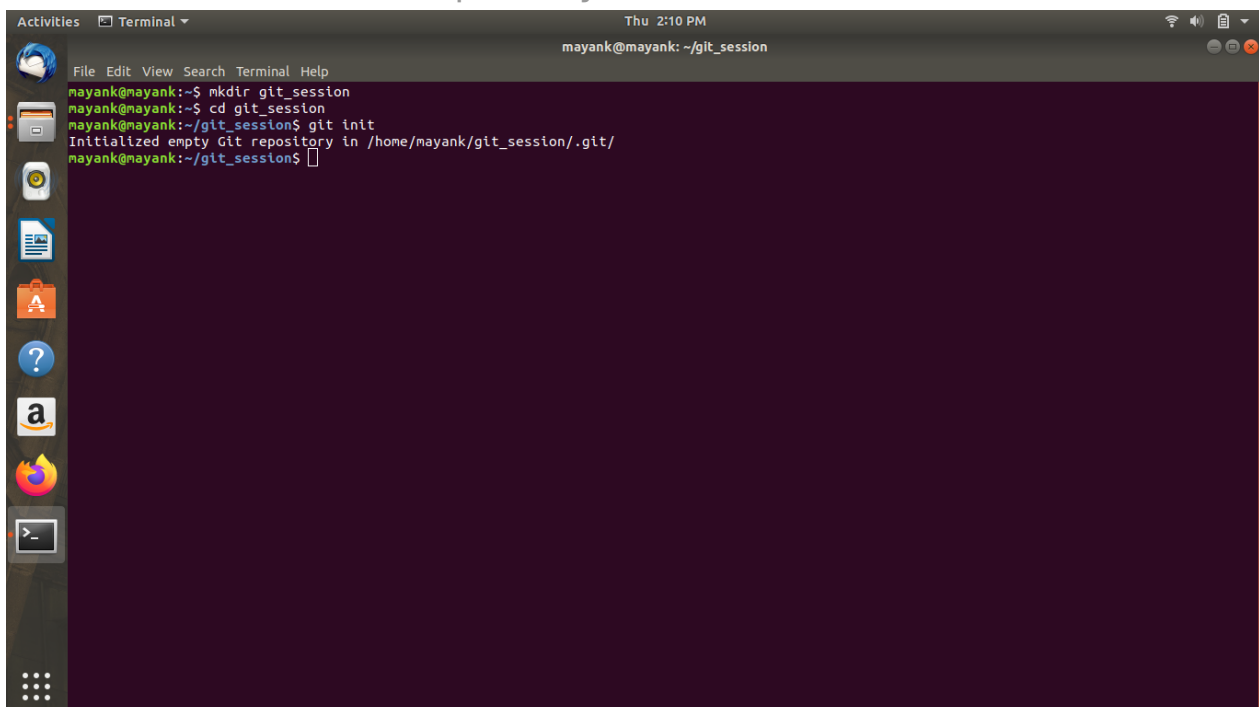
Git Setup <https://confluence.atlassian.com>.



```
Activities Terminal Tue 11:44 AM
mayank@mayank: ~

File Edit View Search Terminal Help
mayank@mayank:~$ sudo apt-get install git
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following additional packages will be installed:
  git-man liberror-perl
Suggested packages:
  git-daemon-run | git-daemon-sysvinit git-doc git-el git-email git-gui gitk gitweb git-cvs git-mediawiki git-svn
The following NEW packages will be installed:
  git git-man liberror-perl
0 upgraded, 3 newly installed, 0 to remove and 623 not upgraded.
Need to get 4,738 kB of archives.
After this operation, 33.9 MB of additional disk space will be used.
Do you want to continue? [Y/n] Y
Get:1 http://in.archive.ubuntu.com/ubuntu bionic/main amd64 liberror-perl all 0.17025-1 [22.8 kB]
Get:2 http://in.archive.ubuntu.com/ubuntu bionic-updates/main amd64 git-man all 1:2.17.1-1ubuntu0.5 [803 kB]
Get:3 http://in.archive.ubuntu.com/ubuntu bionic-updates/main amd64 git amd64 1:2.17.1-1ubuntu0.5 [3,912 kB]
Fetched 4,738 kB in 30s (158 kB/s)
Selecting previously unselected package liberror-perl.
(Reading database ... 125962 files and directories currently installed.)
Preparing to unpack .../liberror-perl_0.17025-1_all.deb ...
Unpacking liberror-perl (0.17025-1) ...
Selecting previously unselected package git-man.
Preparing to unpack .../git-man_1%3a2.17.1-1ubuntu0.5_all.deb ...
Unpacking git-man (1:2.17.1-1ubuntu0.5) ...
Selecting previously unselected package git.
Preparing to unpack .../git_1%3a2.17.1-1ubuntu0.5_amd64.deb ...
Unpacking git (1:2.17.1-1ubuntu0.5) ...
Setting up git-man (1:2.17.1-1ubuntu0.5) ...
Setting up liberror-perl (0.17025-1) ...
Processing triggers for man-db (2.8.3-2) ...
Setting up git (1:2.17.1-1ubuntu0.5) ...
mayank@mayank:~$
mayank@mayank:~$
mayank@mayank:~$ sudo git init
Initialized empty Git repository in /home/mayank/.git/
mayank@mayank:~$ ll
total 124
```

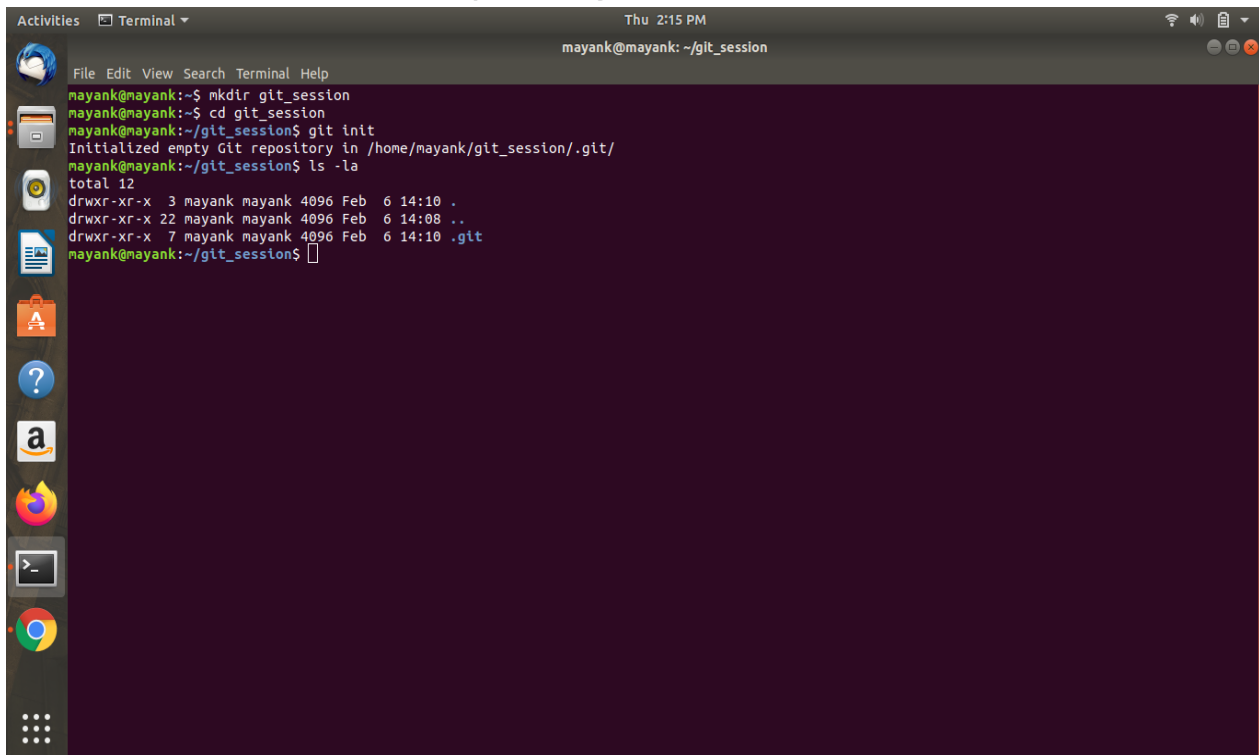
1.Initialize a Git Repository



```
Activities Terminal Thu 2:10 PM
mayank@mayank: ~/git_session

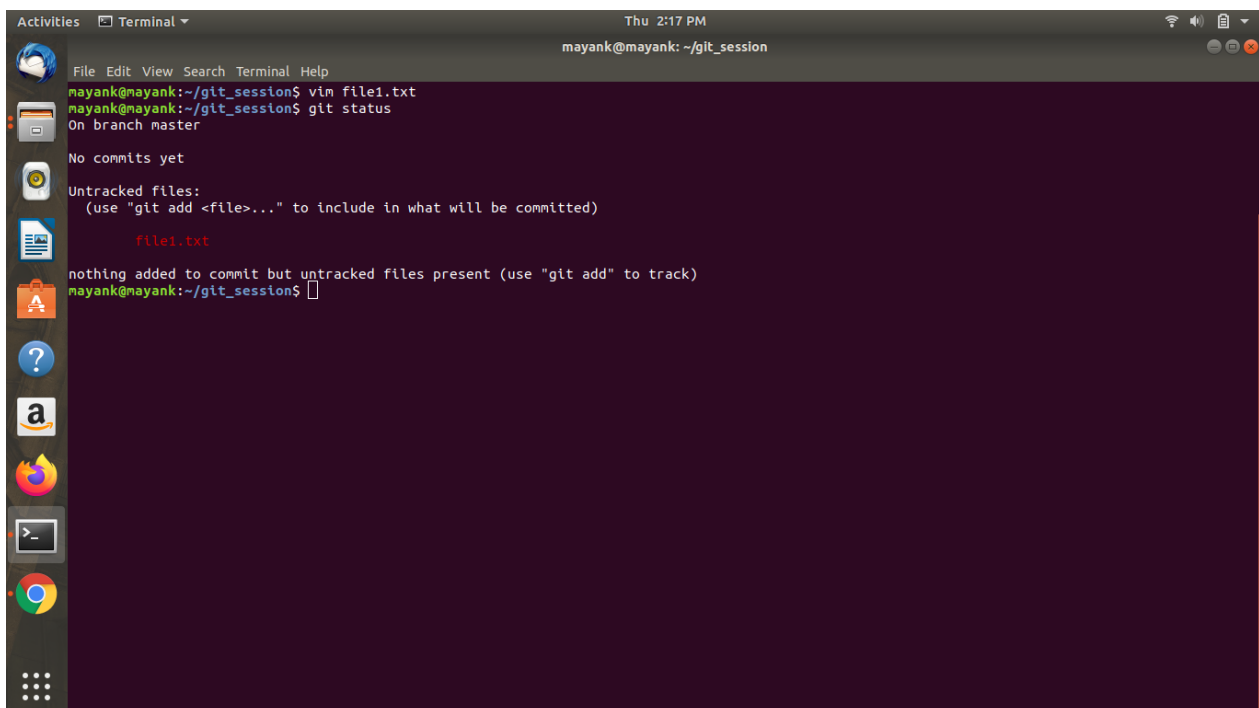
File Edit View Search Terminal Help
mayank@mayank:~$ mkdir git_session
mayank@mayank:~$ cd git_session
mayank@mayank:~/git_session$ git init
Initialized empty Git repository in /home/mayank/git_session/.git/
mayank@mayank:~/git_session$
```

2. Add files to the repository



A terminal window titled 'Terminal' with the user 'mayank' at host 'mayank' in the directory '~/git_session'. The terminal shows the following commands and output:

```
mayank@mayank:~$ mkdir git_session
mayank@mayank:~$ cd git_session
mayank@mayank:~/git_session$ git init
Initialized empty Git repository in /home/mayank/git_session/.git/
mayank@mayank:~/git_session$ ls -la
total 12
drwxr-xr-x  3 mayank mayank 4096 Feb  6 14:10 .
drwxr-xr-x 22 mayank mayank 4096 Feb  6 14:08 ..
drwxr-xr-x  7 mayank mayank 4096 Feb  6 14:10 .git
mayank@mayank:~/git_session$
```



A terminal window titled 'Terminal' with the user 'mayank' at host 'mayank' in the directory '~/git_session'. The terminal shows the following commands and output:

```
mayank@mayank:~/git_session$ vim file1.txt
mayank@mayank:~/git_session$ git status
On branch master

No commits yet

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)
mayank@mayank:~/git_session$
```

3. Unstage 1 file

```
Activities Terminal Thu 2:19 PM mayank@mayank: ~/git_session
File Edit View Search Terminal Help
mayank@mayank:~/git_session$ git status
On branch master

No commits yet

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

        new file:   file1.txt

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:   file1.txt

mayank@mayank:~/git_session$ git reset file1.txt
mayank@mayank:~/git_session$ git status
On branch master

No commits yet

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)
mayank@mayank:~/git_session$
```

4.Commit the file

```
Activities Terminal Thu 2:19 PM mayank@mayank: ~/git_session
File Edit View Search Terminal Help
mayank@mayank:~/git_session$ git status
On branch master

No commits yet

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

        new file:   file1.txt

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:   file1.txt

mayank@mayank:~/git_session$ git reset file1.txt
mayank@mayank:~/git_session$ git status
On branch master

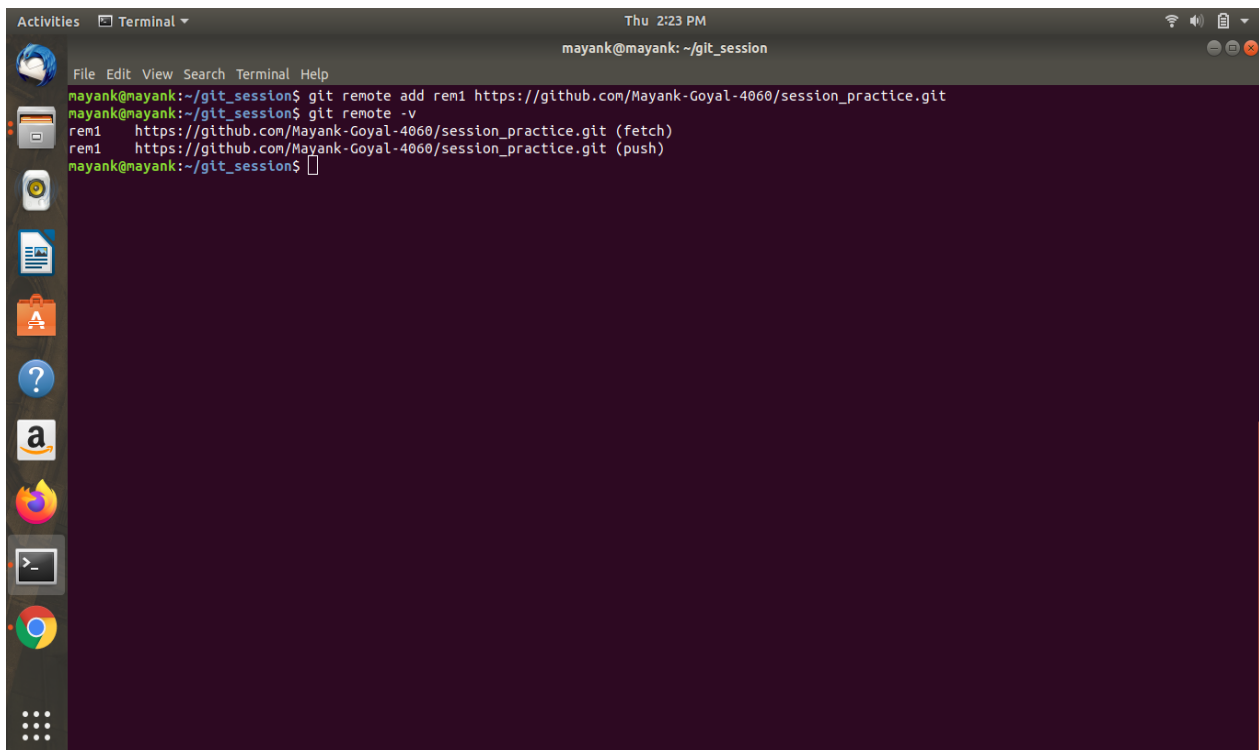
No commits yet

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

        file1.txt

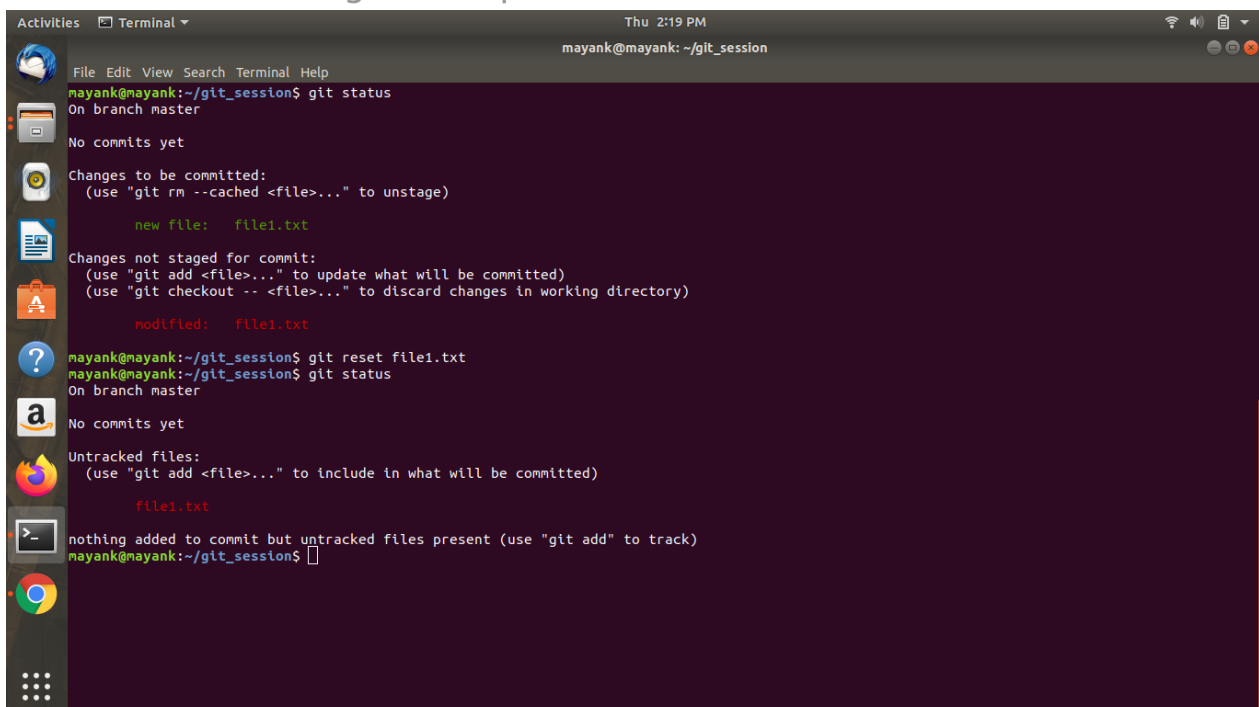
nothing added to commit but untracked files present (use "git add" to track)
mayank@mayank:~/git_session$
```

5.Add a remote

A terminal window titled "Terminal" with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Thu 2:23 PM, mayank@mayank: ~/git_session). The terminal shows the following commands and output:

```
mayank@mayank:~/git_session$ git remote add rem1 https://github.com/Mayank-Goyal-4060/session_practice.git
mayank@mayank:~/git_session$ git remote -v
rem1 https://github.com/Mayank-Goyal-4060/session_practice.git (fetch)
rem1 https://github.com/Mayank-Goyal-4060/session_practice.git (push)
mayank@mayank:~/git_session$
```

6.Undo changes to a particular file

A terminal window titled "Terminal" with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Thu 2:19 PM, mayank@mayank: ~/git_session). The terminal shows the following commands and output:

```
mayank@mayank:~/git_session$ git status
On branch master

No commits yet

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

        new file:   file1.txt

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:   file1.txt

mayank@mayank:~/git_session$ git reset file1.txt
mayank@mayank:~/git_session$ git status
On branch master

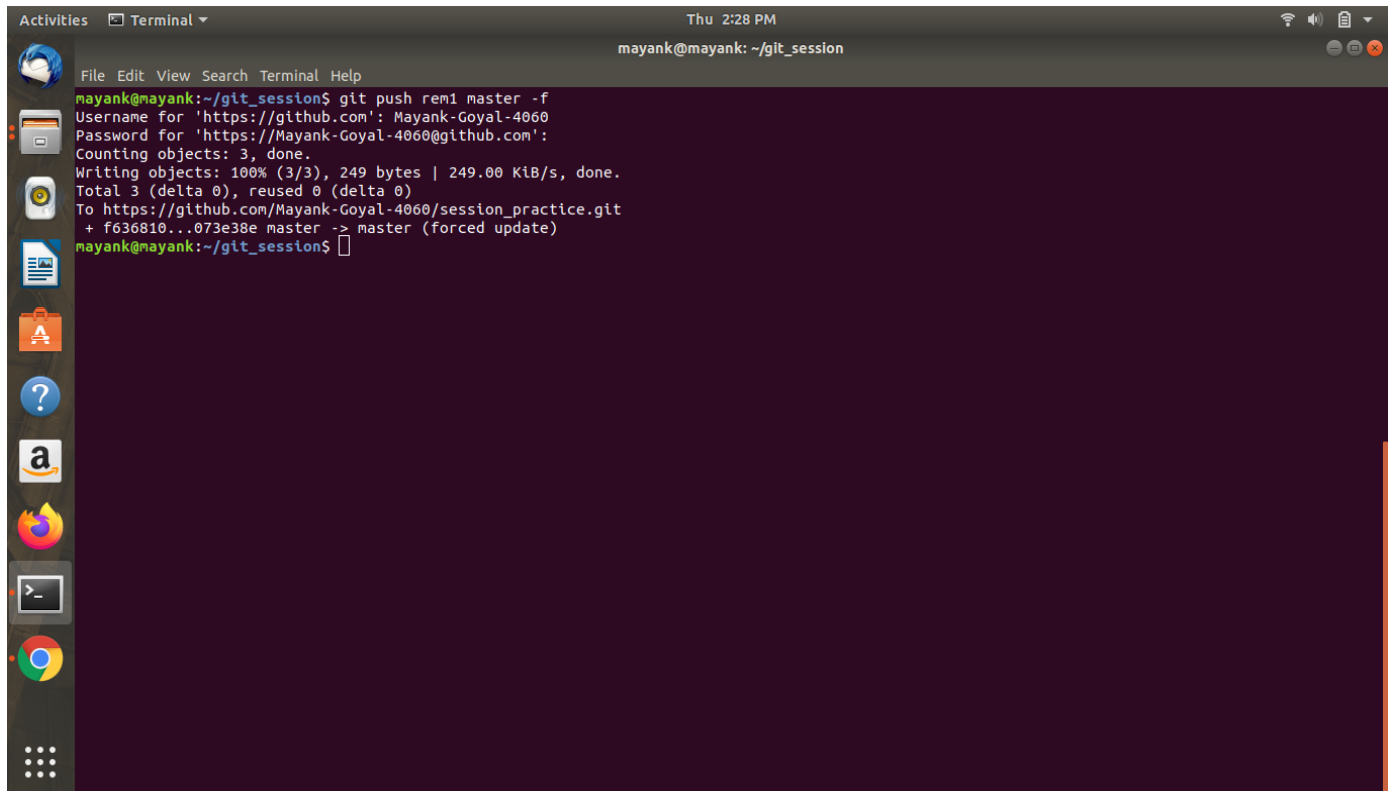
No commits yet

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)
mayank@mayank:~/git_session$
```

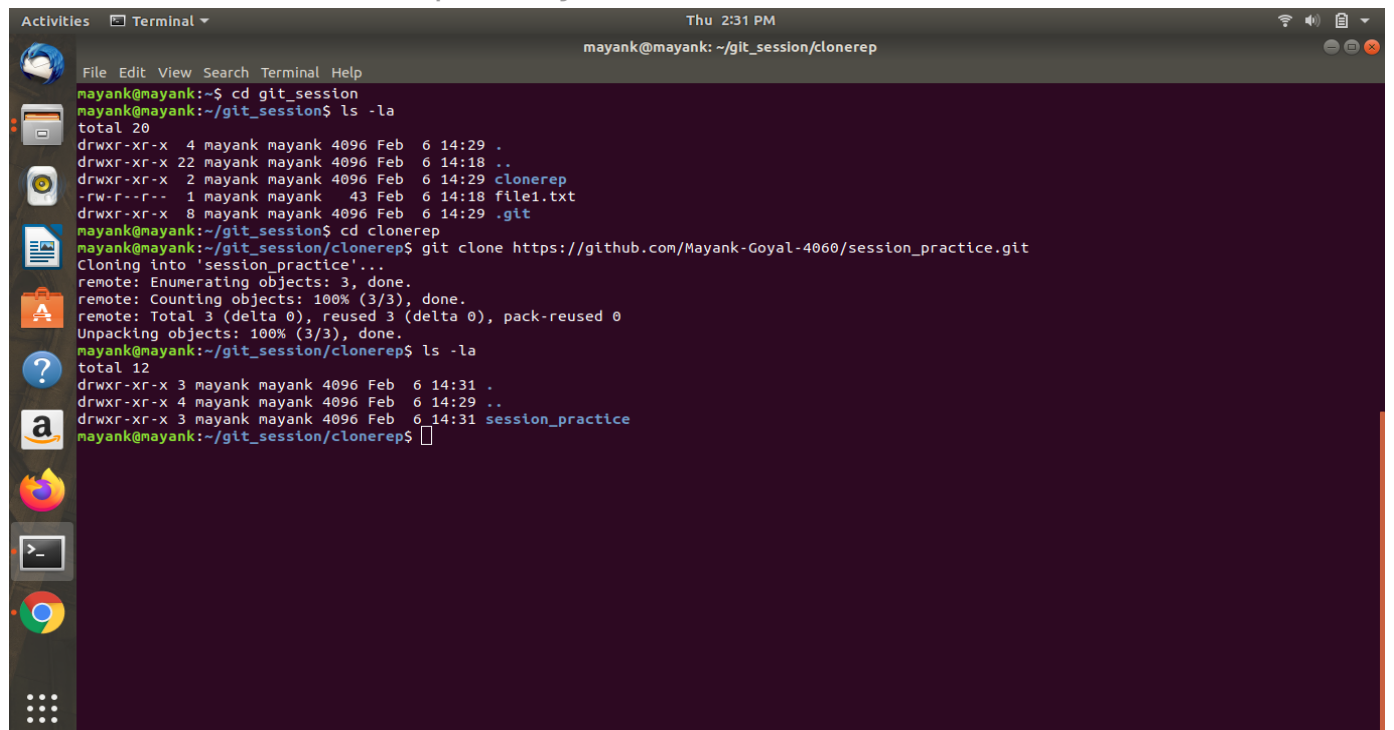
7.Push changes to Github



A terminal window titled 'Terminal' with a dark background. The prompt is 'mayank@mayank: ~/git_session'. The user enters 'git push rem1 master -f'. The output shows the push process: 'Username for 'https://github.com': Mayank-Goyal-4060', 'Password for 'https://Mayank-Goyal-4060@github.com':', 'Counting objects: 3, done.', 'Writing objects: 100% (3/3), 249 bytes | 249.00 KiB/s, done.', 'Total 3 (delta 0), reused 0 (delta 0)', 'To https://github.com/Mayank-Goyal-4060/session_practice.git', '+ f636810...073e38e master -> master (forced update)'. The prompt returns to 'mayank@mayank: ~/git_session\$'.

```
mayank@mayank:~/git_session$ git push rem1 master -f
Username for 'https://github.com': Mayank-Goyal-4060
Password for 'https://Mayank-Goyal-4060@github.com':
Counting objects: 3, done.
Writing objects: 100% (3/3), 249 bytes | 249.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/Mayank-Goyal-4060/session_practice.git
+ f636810...073e38e master -> master (forced update)
mayank@mayank:~/git_session$
```

8.Clone the repository



A terminal window titled 'Terminal' with a dark background. The prompt is 'mayank@mayank: ~/git_session/clonerep'. The user enters 'cd git_session'. The prompt changes to 'mayank@mayank: ~/git_session'. The user enters 'ls -la'. The output shows a directory listing with permissions, owner, group, size, date, and file names: 'total 20', 'drwxr-xr-x 4 mayank mayank 4096 Feb 6 14:29 .', 'drwxr-xr-x 22 mayank mayank 4096 Feb 6 14:18 ..', 'drwxr-xr-x 2 mayank mayank 4096 Feb 6 14:29 clonerep', '-rw-r--r-- 1 mayank mayank 43 Feb 6 14:18 file1.txt', 'drwxr-xr-x 8 mayank mayank 4096 Feb 6 14:29 .git'. The user enters 'cd clonerep'. The prompt changes to 'mayank@mayank: ~/git_session/clonerep'. The user enters 'git clone https://github.com/Mayank-Goyal-4060/session_practice.git'. The output shows the cloning process: 'Cloning into 'session_practice'...', 'remote: Enumerating objects: 3, done.', 'remote: Counting objects: 100% (3/3), done.', 'remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0', 'Unpacking objects: 100% (3/3), done.'. The user enters 'ls -la'. The output shows a directory listing: 'total 12', 'drwxr-xr-x 3 mayank mayank 4096 Feb 6 14:31 .', 'drwxr-xr-x 4 mayank mayank 4096 Feb 6 14:29 ..', 'drwxr-xr-x 3 mayank mayank 4096 Feb 6 14:31 session_practice'. The prompt returns to 'mayank@mayank: ~/git_session/clonerep\$'.

```
mayank@mayank:~/git_session$ cd git_session
mayank@mayank:~/git_session$ ls -la
total 20
drwxr-xr-x 4 mayank mayank 4096 Feb 6 14:29 .
drwxr-xr-x 22 mayank mayank 4096 Feb 6 14:18 ..
drwxr-xr-x 2 mayank mayank 4096 Feb 6 14:29 clonerep
-rw-r--r-- 1 mayank mayank 43 Feb 6 14:18 file1.txt
drwxr-xr-x 8 mayank mayank 4096 Feb 6 14:29 .git
mayank@mayank:~/git_session$ cd clonerep
mayank@mayank:~/git_session/clonerep$ git clone https://github.com/Mayank-Goyal-4060/session_practice.git
Cloning into 'session_practice'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
mayank@mayank:~/git_session/clonerep$ ls -la
total 12
drwxr-xr-x 3 mayank mayank 4096 Feb 6 14:31 .
drwxr-xr-x 4 mayank mayank 4096 Feb 6 14:29 ..
drwxr-xr-x 3 mayank mayank 4096 Feb 6 14:31 session_practice
mayank@mayank:~/git_session/clonerep$
```

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

```
Activities Terminal Thu 2:37 PM mayank@mayank: ~/git_session
File Edit View Search Terminal Help
mayank@mayank:~$ cd git_session
mayank@mayank:~/git_session$ remote -v
Command 'remote' not found, but can be installed with:
sudo snap install remote
mayank@mayank:~/git_session$ git remote -v
rem1 https://github.com/Mayank-Goyal-4060/session_practice.git (fetch)
rem1 https://github.com/Mayank-Goyal-4060/session_practice.git (push)
mayank@mayank:~/git_session$ git pull rem1 master file1.txt
fatal: Couldn't find remote ref file1.txt
mayank@mayank:~/git_session$ git pull rem1 master -f
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/Mayank-Goyal-4060/session_practice
* branch      master      -> FETCH_HEAD
   073e38e..83a0799 master -> rem1/master
Updating 073e38e..83a0799
Fast-forward
 file1.txt | 1 +
 1 file changed, 1 insertion(+)
mayank@mayank:~/git_session$
```

```
Activities Terminal Thu 2:38 PM mayank@mayank: ~/git_session
File Edit View Search Terminal Help
mayank@mayank:~$ cd git_session
mayank@mayank:~/git_session$ remote -v
Command 'remote' not found, but can be installed with:
sudo snap install remote
mayank@mayank:~/git_session$ git remote -v
rem1 https://github.com/Mayank-Goyal-4060/session_practice.git (fetch)
rem1 https://github.com/Mayank-Goyal-4060/session_practice.git (push)
mayank@mayank:~/git_session$ git pull rem1 master file1.txt
fatal: Couldn't find remote ref file1.txt
mayank@mayank:~/git_session$ git pull rem1 master -f
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/Mayank-Goyal-4060/session_practice
* branch      master      -> FETCH_HEAD
   073e38e..83a0799 master -> rem1/master
Updating 073e38e..83a0799
Fast-forward
 file1.txt | 1 +
 1 file changed, 1 insertion(+)
mayank@mayank:~/git_session$ cat file1.txt
creating first file
creating for unstaged
editing in clone
mayank@mayank:~/git_session$
```

10. Check differences between a file and its staged version

```
Activities Terminal Thu 2:43 PM mayank@mayank: ~/git_session
File Edit View Search Terminal Help
mayank@mayank:~/git_session$ git diff HEAD file1.txt
mayank@mayank:~/git_session$ git status
On branch master
nothing to commit, working tree clean
mayank@mayank:~/git_session$ vim file1.txt
mayank@mayank:~/git_session$ git status
On branch master
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:   file1.txt

no changes added to commit (use "git add" and/or "git commit -a")
mayank@mayank:~/git_session$ git diff HEAD file1.txt
diff --git a/file1.txt b/file1.txt
index 88b3620..47b1bdb 100644
--- a/file1.txt
+++ b/file1.txt
@@ -1,3 +1,4 @@
creating first file
creating for unstaged
editing in clone
+checking diff in staged
mayank@mayank:~/git_session$
mayank@mayank:~/git_session$ git add .
mayank@mayank:~/git_session$ git commit .
[master cbdde9] done
1 file changed, 1 insertion(+)
mayank@mayank:~/git_session$
```

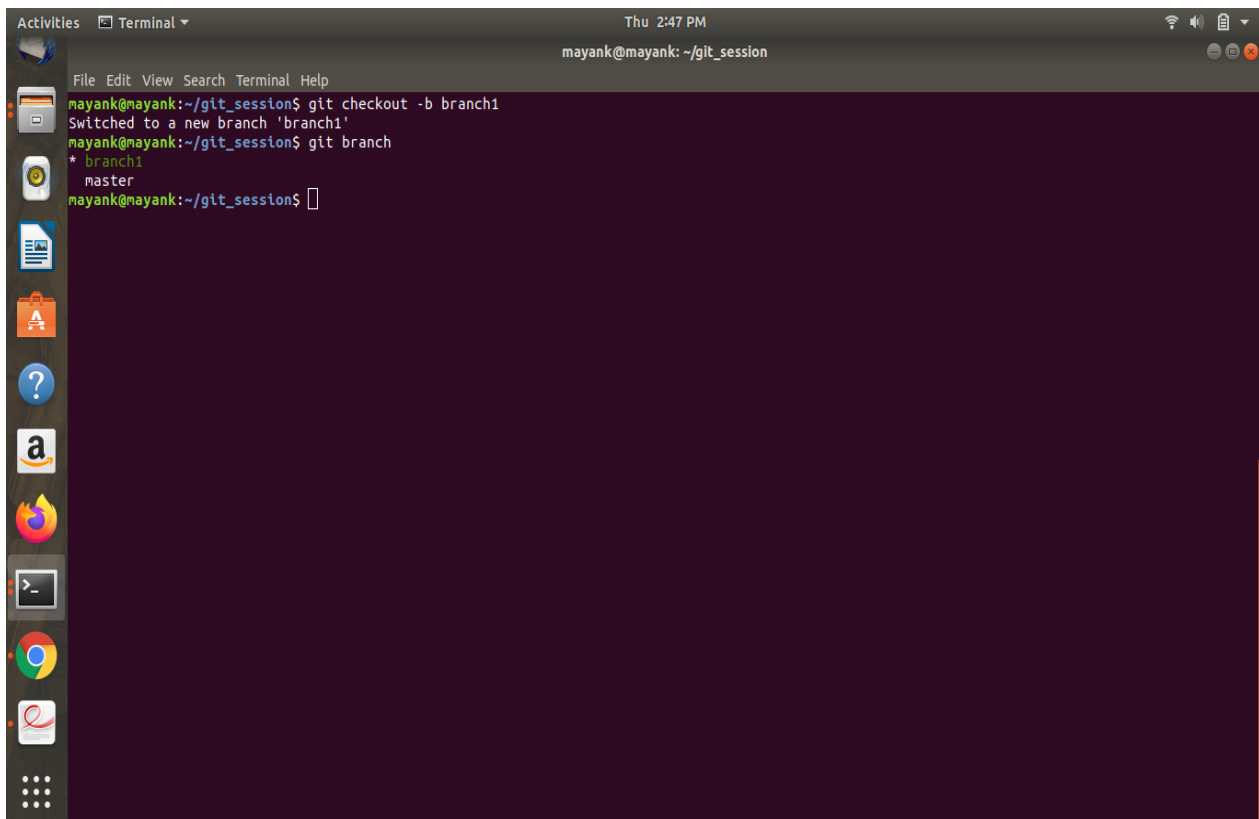
11.Ignore a few files to be checked in

```
Activities Terminal Thu 2:46 PM mayank@mayank: ~/git_session
File Edit View Search Terminal Help
mayank@mayank:~/git_session$ touch .gitignore
mayank@mayank:~/git_session$ touch file2.txt
mayank@mayank:~/git_session$ vim .gitignore
mayank@mayank:~/git_session$ git status
On branch master
Untracked files:
  (use "git add <file>..." to include in what will be committed)

        .gitignore

nothing added to commit but untracked files present (use "git add" to track)
mayank@mayank:~/git_session$ ls -la
total 24
drwxr-xr-x  4 mayank mayank 4096 Feb  6 14:45 .
drwxr-xr-x 22 mayank mayank 4096 Feb  6 14:45 ..
drwxr-xr-x  3 mayank mayank 4096 Feb  6 14:31 clonerep
-rw-r--r--  1 mayank mayank   86 Feb  6 14:43 file1.txt
-rw-r--r--  1 mayank mayank    0 Feb  6 14:44 file2.txt
drwxr-xr-x  8 mayank mayank 4096 Feb  6 14:45 .git
-rw-r--r--  1 mayank mayank   10 Feb  6 14:45 .gitignore
mayank@mayank:~/git_session$ git add .
mayank@mayank:~/git_session$ git commit .
[master cbded3a] done
1 file changed, 1 insertion(+)
create mode 100644 .gitignore
mayank@mayank:~/git_session$ git status
On branch master
nothing to commit, working tree clean
mayank@mayank:~/git_session$ ls -la
total 24
drwxr-xr-x  4 mayank mayank 4096 Feb  6 14:45 .
drwxr-xr-x 22 mayank mayank 4096 Feb  6 14:45 ..
drwxr-xr-x  3 mayank mayank 4096 Feb  6 14:31 clonerep
-rw-r--r--  1 mayank mayank   86 Feb  6 14:43 file1.txt
-rw-r--r--  1 mayank mayank    0 Feb  6 14:44 file2.txt
drwxr-xr-x  8 mayank mayank 4096 Feb  6 14:46 .git
-rw-r--r--  1 mayank mayank   10 Feb  6 14:45 .gitignore
mayank@mayank:~/git_session$
```

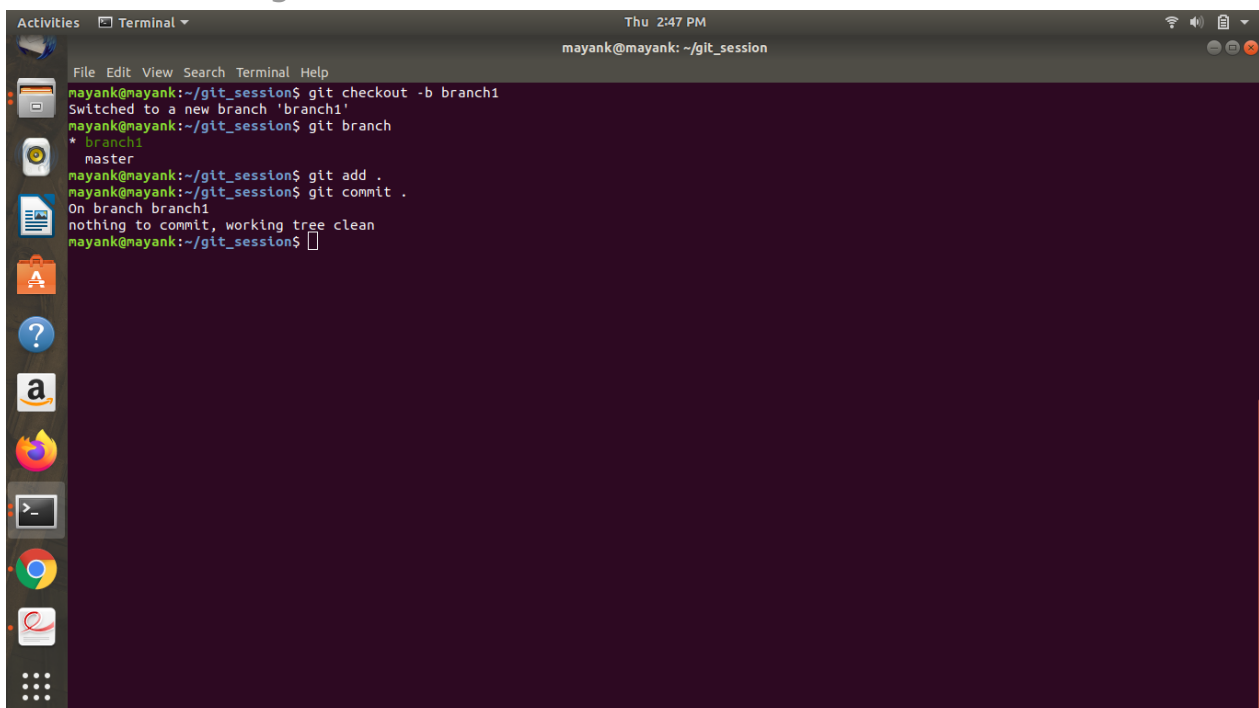
12.Create a new branch.



A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Thu 2:47 PM, mayank@mayank: ~/git_session). The terminal shows the following commands and output:

```
mayank@mayank:~/git_session$ git checkout -b branch1
Switched to a new branch 'branch1'
mayank@mayank:~/git_session$ git branch
* branch1
master
mayank@mayank:~/git_session$
```

13.Diverge them with commits



A terminal window titled 'Terminal' with a menu bar (File, Edit, View, Search, Terminal, Help) and a status bar (Thu 2:47 PM, mayank@mayank: ~/git_session). The terminal shows the following commands and output:

```
mayank@mayank:~/git_session$ git checkout -b branch1
Switched to a new branch 'branch1'
mayank@mayank:~/git_session$ git branch
* branch1
master
mayank@mayank:~/git_session$ git add .
mayank@mayank:~/git_session$ git commit .
On branch branch1
nothing to commit, working tree clean
mayank@mayank:~/git_session$
```

14.Edit the same file at the same line on both branches and commit


```
Activities Terminal Thu 2:51 PM mayank@mayank: ~/git_session
File Edit View Search Terminal Help
mayank@mayank:~/git_session$ git checkout master
Switched to branch 'master'
mayank@mayank:~/git_session$ vim file1.txt
mayank@mayank:~/git_session$ git status
On branch master
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:   file1.txt

no changes added to commit (use "git add" and/or "git commit -a")
mayank@mayank:~/git_session$ git checkout branch1
M       file1.txt
Switched to branch 'branch1'
mayank@mayank:~/git_session$ vim file1.txt
mayank@mayank:~/git_session$ git add .
mayank@mayank:~/git_session$ git commit .
[branch1 41d5158] done
1 file changed, 1 insertion(+), 1 deletion(-)
mayank@mayank:~/git_session$
```

15. Try merging and resolve merge conflicts

```
Activities Terminal Thu 2:55 PM mayank@mayank: ~/git_session
File Edit View Search Terminal Help
mayank@mayank:~/git_session$ vim file1.txt
mayank@mayank:~/git_session$ git add .
mayank@mayank:~/git_session$ git commit .
[master 0979cb5] cimm
1 file changed, 1 insertion(+), 1 deletion(-)
mayank@mayank:~/git_session$ git checkout branch1
Switched to branch 'branch1'
mayank@mayank:~/git_session$ vim file1.txt
mayank@mayank:~/git_session$ git add .
mayank@mayank:~/git_session$ git commit .
[branch1 85dfd33] domenem
1 file changed, 1 insertion(+), 1 deletion(-)
mayank@mayank:~/git_session$ git merge master
Auto-merging file1.txt
CONFLICT (content): Merge conflict in file1.txt
Automatic merge failed; fix conflicts and then commit the result.
mayank@mayank:~/git_session$
```

16. Stash the changes and pop them

soln : git stash
git stash list
git stash apply
git stash pop

17. 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[
else
PS1='\u@\h:\W $(parse_git_branch)\$ '
fi
unset color_prompt force_color_prompt

```

```

Activities Text Editor Thu 3:07 PM
Open .bashrc Save
alias ls='ls -atl'
alias la='ls -A'
alias l='ls -CF'

# Add an "alert" alias for long running commands. Use like so:
# sleep 10; alert
alias alert='notify-send --urgency=low -i "${?} = 0" && echo terminal || echo error" "$(history|tail -n1|sed -e '\''s/^[0-9]\+\s*//;s/
[;&]\s*alert$/'\''")'

# Alias definitions.
# You may want to put all your additions into a separate file like
# ~/.bash_aliases, instead of adding them here directly.
# See /usr/share/doc/bash-doc/examples in the bash-doc package.

if [ -f ~/.bash_aliases ]; then
. ~/.bash_aliases
fi

# enable programmable completion features (you don't need to enable
# this, if it's already enabled in /etc/bash.bashrc and /etc/profile
# sources /etc/bash.bashrc).
if ! shopt -oq posix; then
if [ -f /usr/share/bash-completion/bash_completion ]; then
. /usr/share/bash-completion/bash_completion
elif [ -f /etc/bash_completion ]; then
. /etc/bash_completion
fi
fi

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
sh Tab Width: 8 Ln 127, Col 38 INS

```

