

Git

medowhill

Git

- Backup
- Cooperation

Configuration

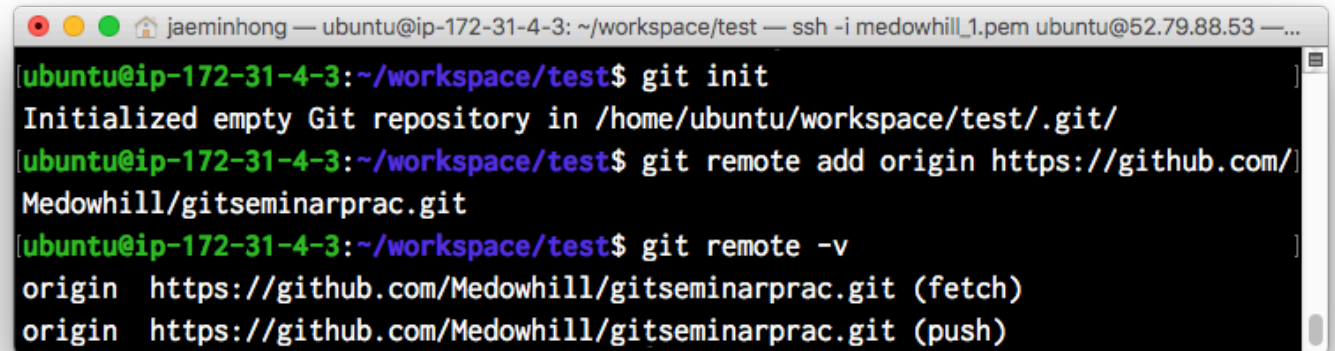
- /etc/gitconfig
- ~/.gitconfig
- .git/config

- \$ git config --global user.name [user name]
- \$ git config --global user.email [user email]
- \$ git config --global core.editor [editor name]

```
jaeminhong — ubuntu@ip-172-31-4-3: ~ — ssh -i medowhill_1.pem ubuntu@52.79.88.53 — 80x13
ubuntu@ip-172-31-4-3:~$ git config --global user.name "Jaemin Hong"
ubuntu@ip-172-31-4-3:~$ git config --global user.email hjm0901@gmail.com
ubuntu@ip-172-31-4-3:~$ git config --global core.editor vim
ubuntu@ip-172-31-4-3:~$ git config --list
user.name=Jaemin Hong
user.email=hjm0901@gmail.com
core.editor=vim
ubuntu@ip-172-31-4-3:~$ cat ~/.gitconfig
[user]
    name = Jaemin Hong
    email = hjm0901@gmail.com
[core]
    editor = vim
```

Initialize & Remote Repository

- `$ git init`
- `$ git remote add [name] [url]`



```
jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53 —...
ubuntu@ip-172-31-4-3:~/workspace/test$ git init
Initialized empty Git repository in /home/ubuntu/workspace/test/.git/
ubuntu@ip-172-31-4-3:~/workspace/test$ git remote add origin https://github.com/
Medowhill/gitseminarprac.git
ubuntu@ip-172-31-4-3:~/workspace/test$ git remote -v
origin https://github.com/Medowhill/gitseminarprac.git (fetch)
origin https://github.com/Medowhill/gitseminarprac.git (push)
```

Clone

- `$ git clone [url]`

```
jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/gitseminarprac — ssh -i medowhill_1.pem ubuntu@52.7...
ubuntu@ip-172-31-4-3:~/workspace$ git clone https://github.com/Medowhill/gitseminarprac.git
Cloning into 'gitseminarprac'...
warning: You appear to have cloned an empty repository.
Checking connectivity... done.
ubuntu@ip-172-31-4-3:~/workspace$ cd gitseminarprac/
ubuntu@ip-172-31-4-3:~/workspace/gitseminarprac$ git remote -v
origin https://github.com/Medowhill/gitseminarprac.git (fetch)
origin https://github.com/Medowhill/gitseminarprac.git (push)
```

Status

- `$ git status`

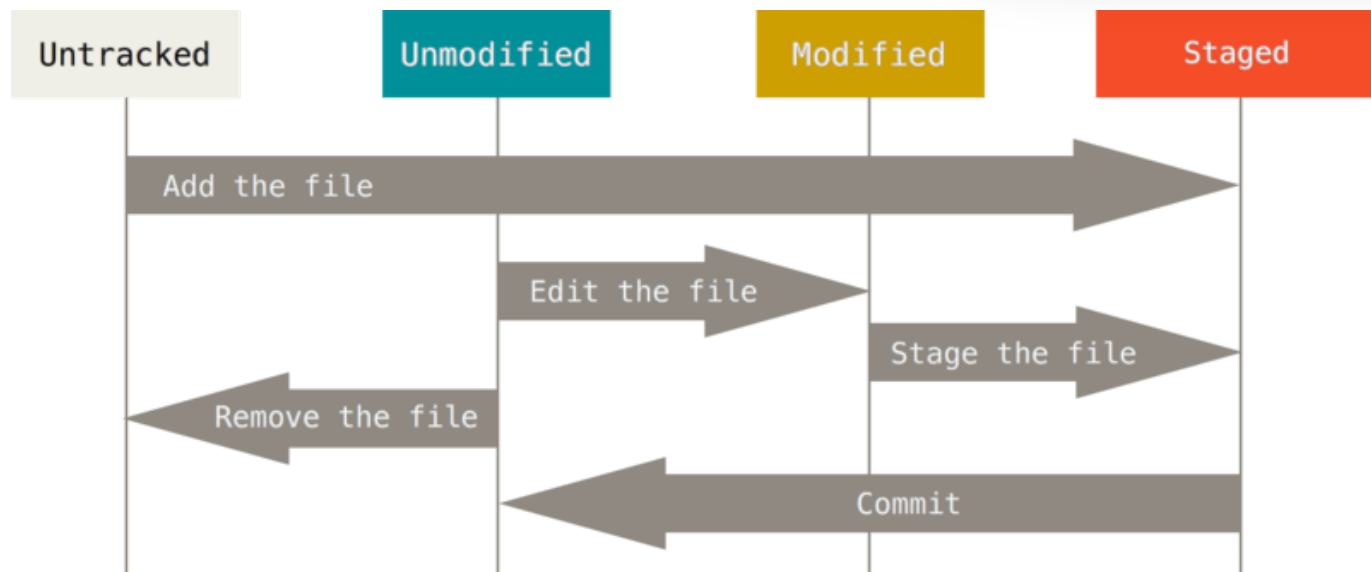
```
jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53 —...
ubuntu@ip-172-31-4-3:~/workspace/test$ git status
On branch master

Initial commit

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

       Hello.scala

nothing added to commit but untracked files present (use "git add" to track)
```



Add

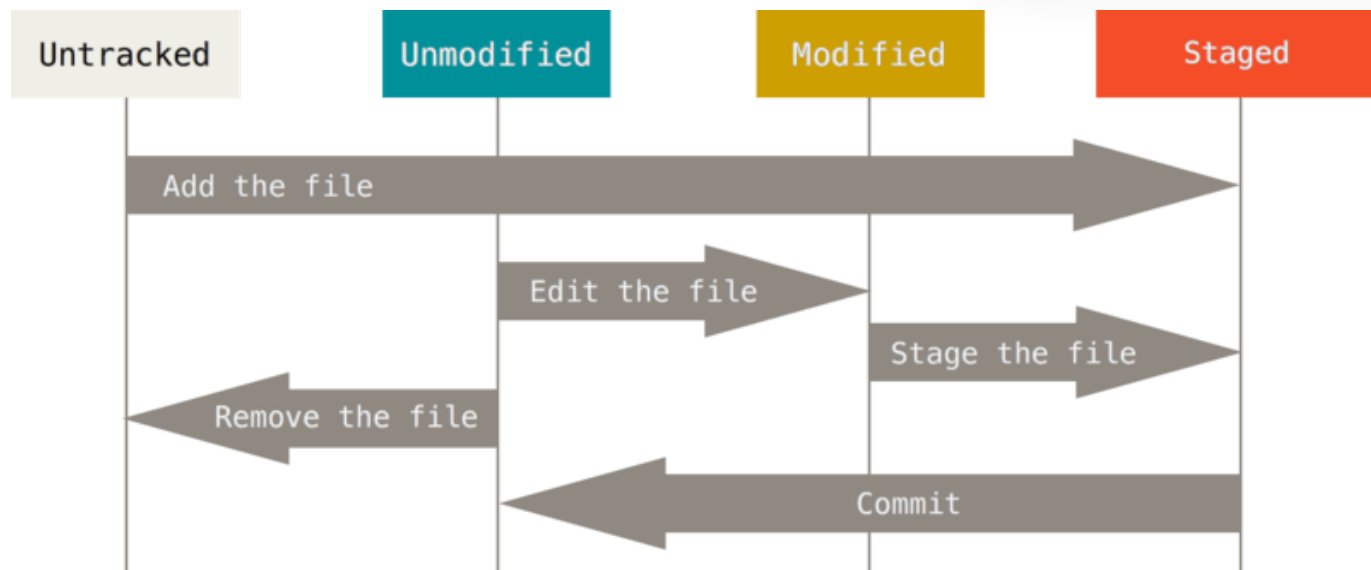
- `$ git add [file]`

```
jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53 —...
ubuntu@ip-172-31-4-3:~/workspace/test$ git add Hello.scala
ubuntu@ip-172-31-4-3:~/workspace/test$ git status
On branch master

Initial commit

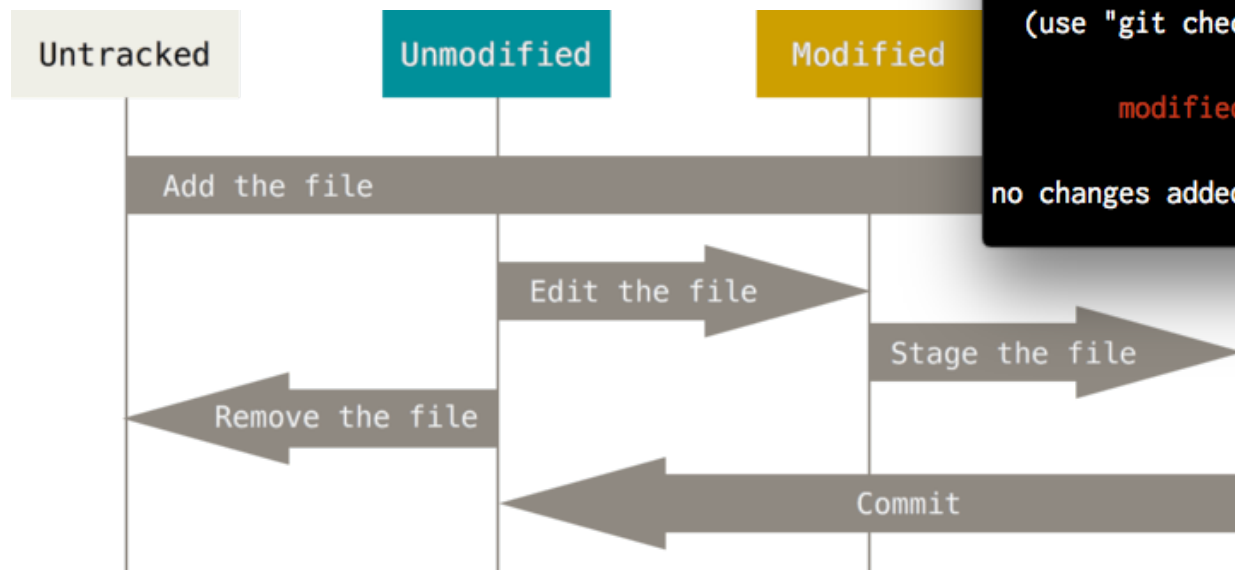
Changes to be committed:
  (use "git rm --cached <file>..." to unstage)

   new file:   Hello.scala
```



Commit

- `$ git commit`



```
jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53 —...
ubuntu@ip-172-31-4-3:~/workspace/test$ git commit
[master (root-commit) db5f5a4] First commit - add Hello.scala file
1 file changed, 5 insertions(+)
create mode 100644 Hello.scala
ubuntu@ip-172-31-4-3:~/workspace/test$ git status
On branch master
nothing to commit, working directory clean

jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53 —...
ubuntu@ip-172-31-4-3:~/workspace/test$ vim Hello.scala
ubuntu@ip-172-31-4-3:~/workspace/test$ 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:   Hello.scala

no changes added to commit (use "git add" and/or "git commit -a")
```


.gitignore

- Specify files do not want to track

```
jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53 — ...
[ubuntu@ip-172-31-4-3:~/workspace/test]$ scalac Hello.scala
[ubuntu@ip-172-31-4-3:~/workspace/test]$ 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:   Hello.scala

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

        Hello$.class
        Hello.class

no changes added to commit (use "git add" and/or "git commit -a")
[ubuntu@ip-172-31-4-3:~/workspace/test]$ vim .gitignore
[ubuntu@ip-172-31-4-3:~/workspace/test]$ 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:   Hello.scala

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

        .gitignore

no changes added to commit (use "git add" and/or "git commit -a")
```

More on Add

- `$ git add -p`

```
jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53 —...
ubuntu@ip-172-31-4-3:~/workspace/test$ git add -p Hello.scala
diff --git a/Hello.scala b/Hello.scala
index 900e5ea..214eae1 100644
--- a/Hello.scala
+++ b/Hello.scala
@@ -1,5 +1,6 @@
 object Hello {
     def main(args: Array[String]) {
         println("Hello world!")
+        println("Hello world!")
     }
 }
[Stage this hunk [y,n,q,a,d,/,e,?]? y
```

Undo

- `$ git commit --amend`
- `$ git reset HEAD [file]`
- `$ git checkout -- [file]`

```
jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53 —...
[ubuntu@ip-172-31-4-3:~/workspace/test]$ git status
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        new file:   .gitignore
        modified:   Hello.scala

[ubuntu@ip-172-31-4-3:~/workspace/test]$ git reset HEAD Hello.scala
Unstaged changes after reset:
M       Hello.scala
[ubuntu@ip-172-31-4-3:~/workspace/test]$ git status
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        new file:   .gitignore

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:   Hello.scala

[ubuntu@ip-172-31-4-3:~/workspace/test]$ git checkout -- Hello.scala
[ubuntu@ip-172-31-4-3:~/workspace/test]$ git status
On branch master
Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

        new file:   .gitignore
```

Difference

- `$ git diff --staged [file]`
- `$ git diff [file]`

```
jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53 —...
ubuntu@ip-172-31-4-3:~/workspace/test$ git diff --staged
diff --git a/.gitignore b/.gitignore
new file mode 100644
index 0000000..6b468b6
--- /dev/null
+++ b/.gitignore
@@ -0,0 +1 @@
+*.class
diff --git a/Hello.scala b/Hello.scala
index 900e5ea..214eae1 100644
--- a/Hello.scala
+++ b/Hello.scala
@@ -1,5 +1,6 @@
 object Hello {
   def main(args: Array[String]) {
     println("Hello world!")
+    println("Hello world!")
   }
 }

jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53 —...
ubuntu@ip-172-31-4-3:~/workspace/test$ vim Hello.scala
ubuntu@ip-172-31-4-3:~/workspace/test$ git diff Hello.scala
diff --git a/Hello.scala b/Hello.scala
index 214eae1..871e682 100644
--- a/Hello.scala
+++ b/Hello.scala
@@ -2,5 +2,6 @@ object Hello {
   def main(args: Array[String]) {
     println("Hello world!")
     println("Hello world!")
+    println("Hello world!")
   }
 }
```

Log & Show

- `$ git log`
- `$ git show [commit]`

```
jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53 —...
ubuntu@ip-172-31-4-3:~/workspace/test$ git log
commit bfa7bfd20e98179f5313e83cc60fb949c026dcf9
Author: Jaemin Hong <hjm0901@gmail.com>
Date: Tue Nov 7 07:07:45 2017 +0000

    add gitignore

commit db5f5a49431055ec3d0b687fcd1b4b6eb2a55a65
Author: Jaemin Hong <hjm0901@gmail.com>
Date: Tue Nov 7 06:39:16 2017 +0000

    First commit - add Hello.scala file
ubuntu@ip-172-31-4-3:~/workspace/test$ git show bfa7bf
commit bfa7bfd20e98179f5313e83cc60fb949c026dcf9
Author: Jaemin Hong <hjm0901@gmail.com>
Date: Tue Nov 7 07:07:45 2017 +0000

    add gitignore

diff --git a/.gitignore b/.gitignore
new file mode 100644
index 0000000..6b468b6
--- /dev/null
+++ b/.gitignore
@@ -0,0 +1 @@
+*.class
diff --git a/Hello.scala b/Hello.scala
index 900e5ea..214eae1 100644
--- a/Hello.scala
+++ b/Hello.scala
@@ -1,5 +1,6 @@
 object Hello {
   def main(args: Array[String]) {
     println("Hello world!")
+    println("Hello world!")
   }
}
```

Push & Pull

- `$ git push [repo] [branch]`
- `--set-upstream`
- `push.default = simple`
- `$ git push`
- `credential.helper = store`
- `$ git pull`

```
ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53 —...
ubuntu@ip-172-31-4-3:~/workspace/test$ git push origin master
Username for 'https://github.com': Medowhill
Password for 'https://Medowhill@github.com':
Counting objects: 7, done.
Compressing objects: 100% (5/5), done.
Writing objects: 100% (7/7), 576 bytes | 0 bytes/s, done.
Total 7 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), done.
To https://github.com/Medowhill/gitseminarprac.git
* [new branch]      master -> master
```

```
jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53 —...
ubuntu@ip-172-31-4-3:~/workspace/test$ git push --set-upstream origin master
Username for 'https://github.com': Medowhill
Password for 'https://Medowhill@github.com':
Branch master set up to track remote branch master from origin.
Everything up-to-date
ubuntu@ip-172-31-4-3:~/workspace/test$ git config --global push.default simple
ubuntu@ip-172-31-4-3:~/workspace/test$ git push
Username for 'https://github.com': Medowhill
Password for 'https://Medowhill@github.com':
Everything up-to-date
```

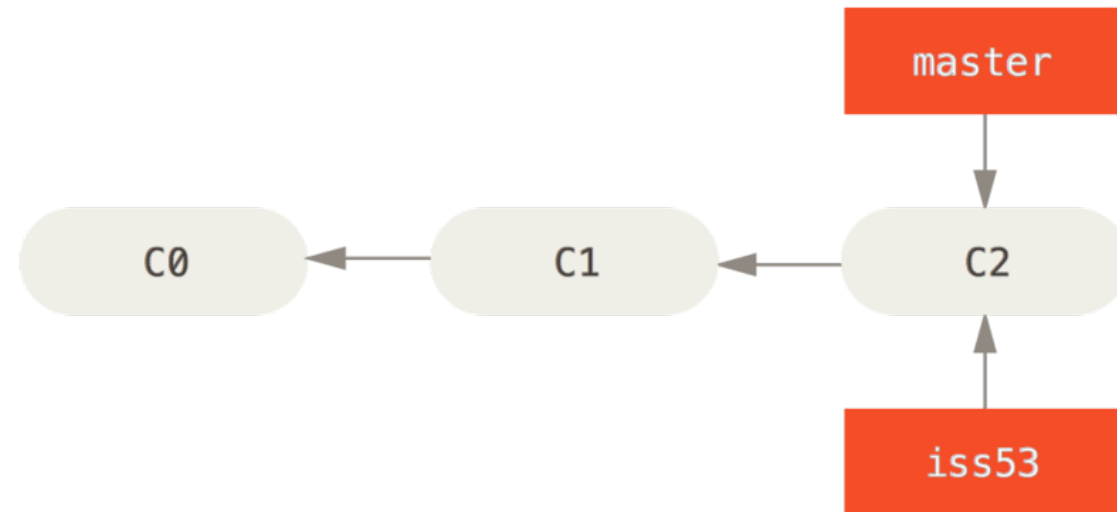
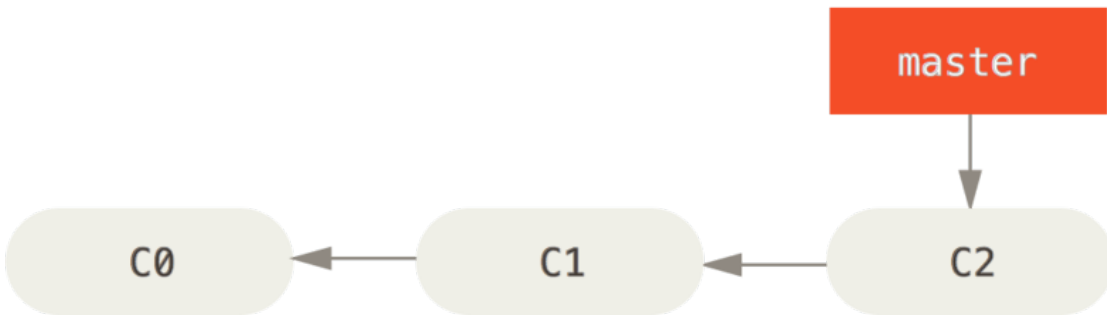
```
jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53...
ubuntu@ip-172-31-4-3:~/workspace/test$ git config credential.helper store
ubuntu@ip-172-31-4-3:~/workspace/test$ git push
Username for 'https://github.com': Medowhill
Password for 'https://Medowhill@github.com':
Everything up-to-date
ubuntu@ip-172-31-4-3:~/workspace/test$ git push
Everything up-to-date
```

```
jaeminhong — ubuntu@ip-172-31-4-3: ~/workspace/test — ssh -i medowhill_1.pem ubuntu@52.79.88.53...
ubuntu@ip-172-31-4-3:~/workspace/test$ git pull
remote: Counting objects: 6, done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 6 (delta 2), reused 6 (delta 2), pack-reused 0
Unpacking objects: 100% (6/6), done.
From https://github.com/Medowhill/gitseminarprac
   b9392e5..36b6d51  master    -> origin/master
Updating b9392e5..36b6d51
Fast-forward
 Hello.scala | 1 +
1 file changed, 1 insertion(+)
```

Making Branch

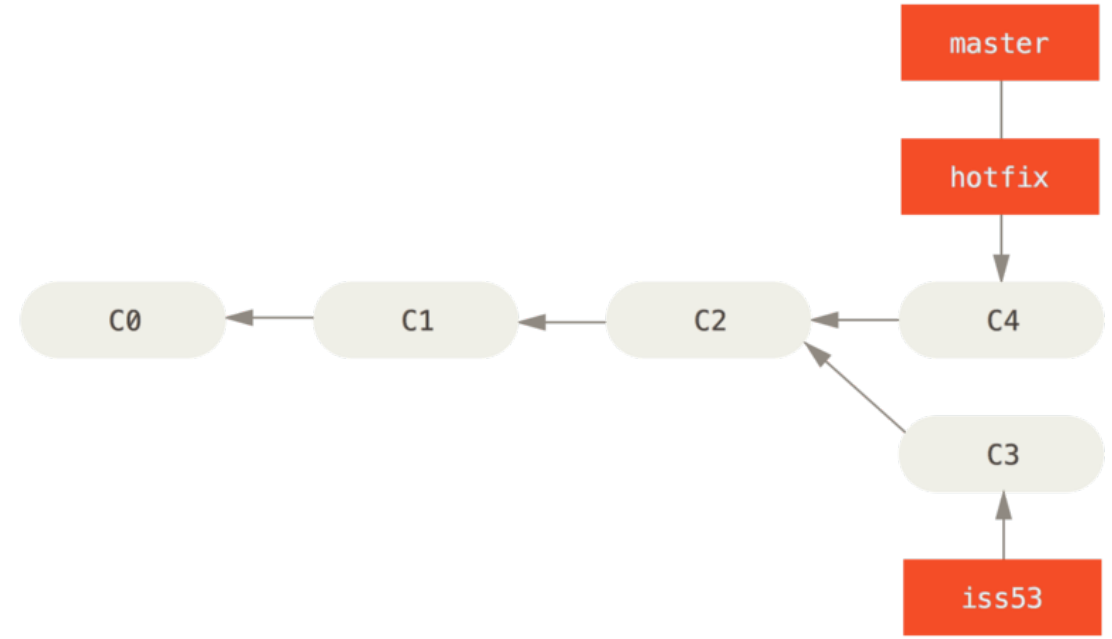
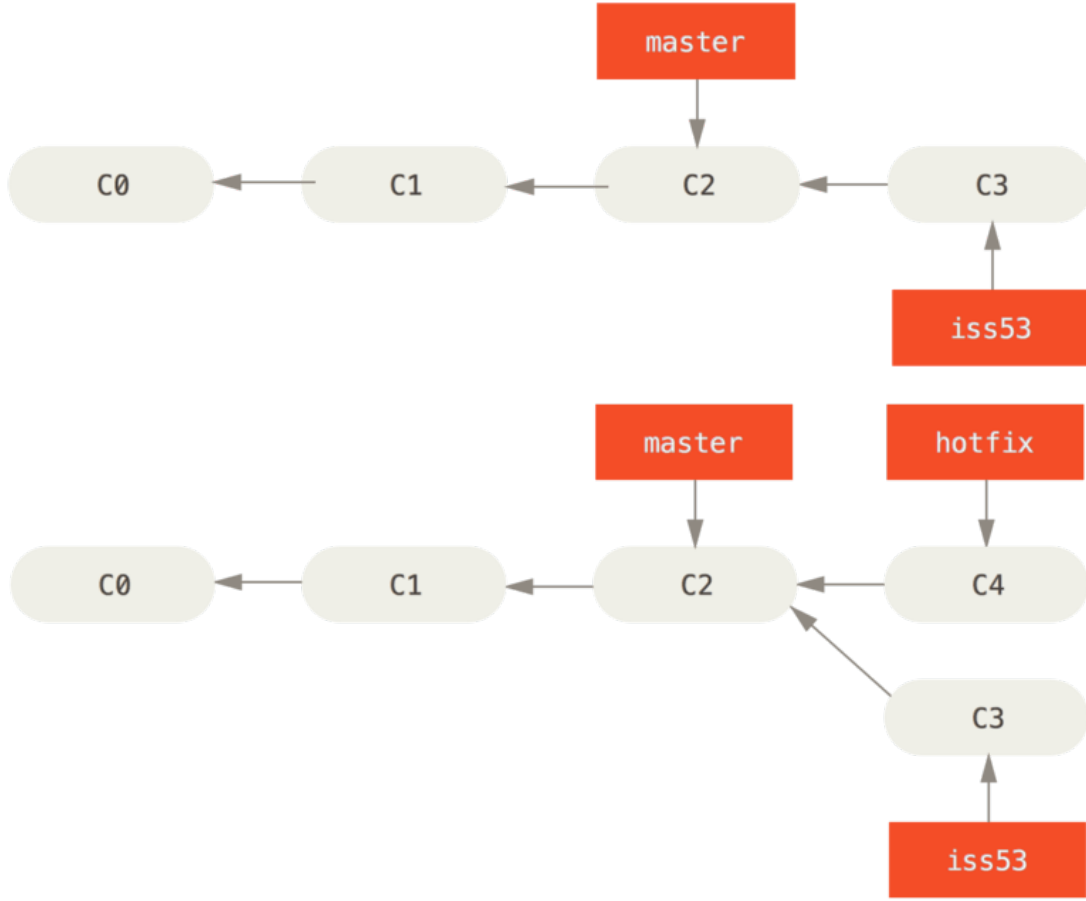
- `$ git branch [branch]`
- `$ git checkout [branch]`
- `$ git checkout -b [branch]`

```
medowhill — ubuntu@ip-172-31-4-8: ~/workspace/gitseminarprac — ssh -i medowhill.pem ubuntu@52.7...  
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git branch  
* master  
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git branch iss53  
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git branch  
  iss53  
* master  
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git checkout iss53  
Switched to branch 'iss53'  
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git branch  
* iss53  
  master
```



Merging Branch (Fast-Forward)

- `$ git merge [branch]`



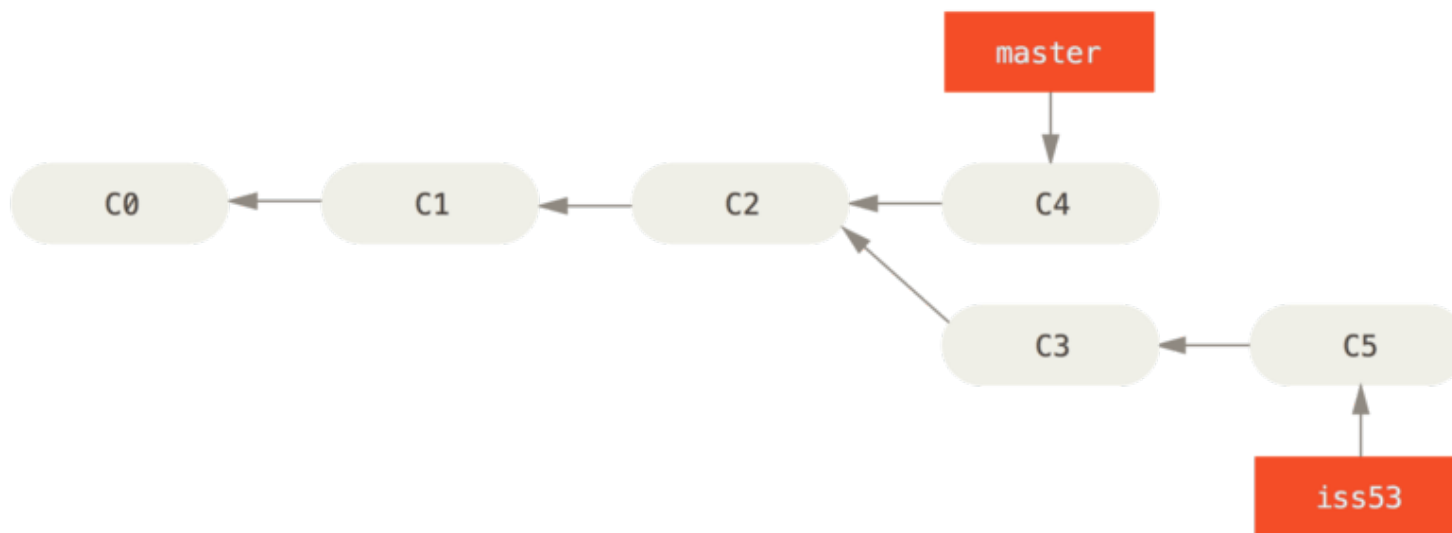
```
medowhill — ubuntu@ip-172-31-4-8: ~/workspace/gitseminarprac — ssh -i medowhill.pem ubuntu@52.7...
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git commit
[hotfix a9a6385] change hello to hi
1 file changed, 1 insertion(+), 1 deletion(-)
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git checkout master
Switched to branch 'master'
Your branch is up-to-date with 'origin/master'.
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git merge hotfix
Updating 36b6d51..a9a6385
Fast-forward
 Hello.scala | 2 +-
1 file changed, 1 insertion(+), 1 deletion(-)
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git log
commit a9a638567c0b60106cd5f2229b037b89e970af25
Author: Jaemin Hong <hjm0901@gmail.com>
Date: Tue Nov 7 14:04:13 2017 +0000

change hello to hi
```


Deleting Branch

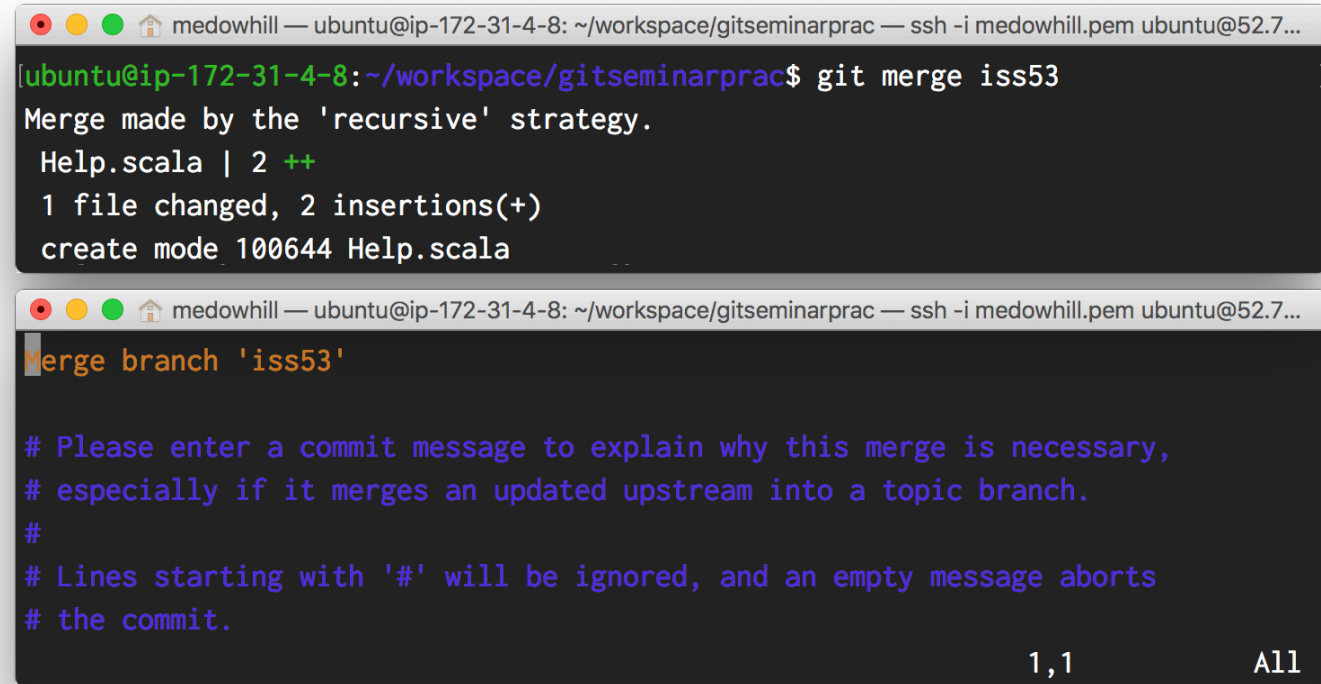
- `$ git branch -d [branch]`

```
medowhill — ubuntu@ip-172-31-4-8: ~/workspace/gitseminarprac — ssh -i medowhill.pem ubuntu@52.7...
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git branch
hotfix
iss53
* master
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git branch -d hotfix
Deleted branch hotfix (was a9a6385).
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git branch
iss53
* master
```



Merging Branch

- `$ git merge [branch]`



```
medowhill — ubuntu@ip-172-31-4-8: ~/workspace/gitseminarprac — ssh -i medowhill.pem ubuntu@52.7...
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git merge iss53
Merge made by the 'recursive' strategy.
 Help.scala | 2 ++
 1 file changed, 2 insertions(+)
 create mode 100644 Help.scala

Merge branch 'iss53'

# Please enter a commit message to explain why this merge is necessary,
# especially if it merges an updated upstream into a topic branch.
#
# Lines starting with '#' will be ignored, and an empty message aborts
# the commit.

1,1 All
```

Resolving Conflicts

```
medowhill — ubuntu@ip-172-31-4-8: ~/workspace/gitseminarprac — ssh -i medowhill.pem ubuntu@52.7...
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git checkout -b iss54
Switched to a new branch 'iss54'
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ vim Hello.scala
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git add Hello.scala
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git commit
[iss54 985469f] fix hi to i love
1 file changed, 1 insertion(+), 1 deletion(-)
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git checkout master
Switched to branch 'master'
Your branch is ahead of 'origin/master' by 3 commits.
(use "git push" to publish your local commits)
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ vim Hello.scala
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git add Hello.scala
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git commit
[master 64128b7] revert hi to hello
1 file changed, 1 insertion(+), 1 deletion(-)
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git merge iss54
Auto-merging Hello.scala
CONFLICT (content): Merge conflict in Hello.scala
Automatic merge failed; fix conflicts and then commit the result.
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git status
On branch master
Your branch is ahead of 'origin/master' by 4 commits.
(use "git push" to publish your local commits)
You have unmerged paths.
(fix conflicts and run "git commit")

Unmerged paths:
(use "git add <file>..." to mark resolution)

    both modified:   Hello.scala

no changes added to commit (use "git add" and/or "git commit -a")
```

```
medowhill — ubuntu@ip-172-31-4-8: ~/workspace/gitseminarprac — ssh -i medowhill.pem ubuntu@52.7...
object Hello {
<<<<<<< HEAD
    val hello = "Hello world!"
=====
    val hello = "I love world!"
>>>>>> iss54

    def main(args: Array[String]) {
        println(hello)
        println(hello)
        println(hello)
        println(hello)
        println(hello)
        println(hello)
    }
    def help: String = "str"
}
1,1 Top
```

```
medowhill — ubuntu@ip-172-31-4-8: ~/workspace/gitseminarprac — ssh -i medowhill.pem ubuntu@52.7...
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ vim Hello.scala
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git add Hello.scala
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git status
On branch master
Your branch is ahead of 'origin/master' by 4 commits.
(use "git push" to publish your local commits)
All conflicts fixed but you are still merging.
(use "git commit" to conclude merge)

nothing to commit, working directory clean
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git commit
```

Pushing Branch

```
medowhill — ubuntu@ip-172-31-4-8: ~/workspace/gitseminarprac — ssh -i medowhill.pem ubuntu@52.7...
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git push origin iss54
Username for 'https://github.com': Medowhill
Password for 'https://Medowhill@github.com':
Total 0 (delta 0), reused 0 (delta 0)
To https://github.com/Medowhill/gitseminarprac.git
* [new branch]      iss54 -> iss54
```

- `$ git push [remote] [branch]`

Pull (Revisited)

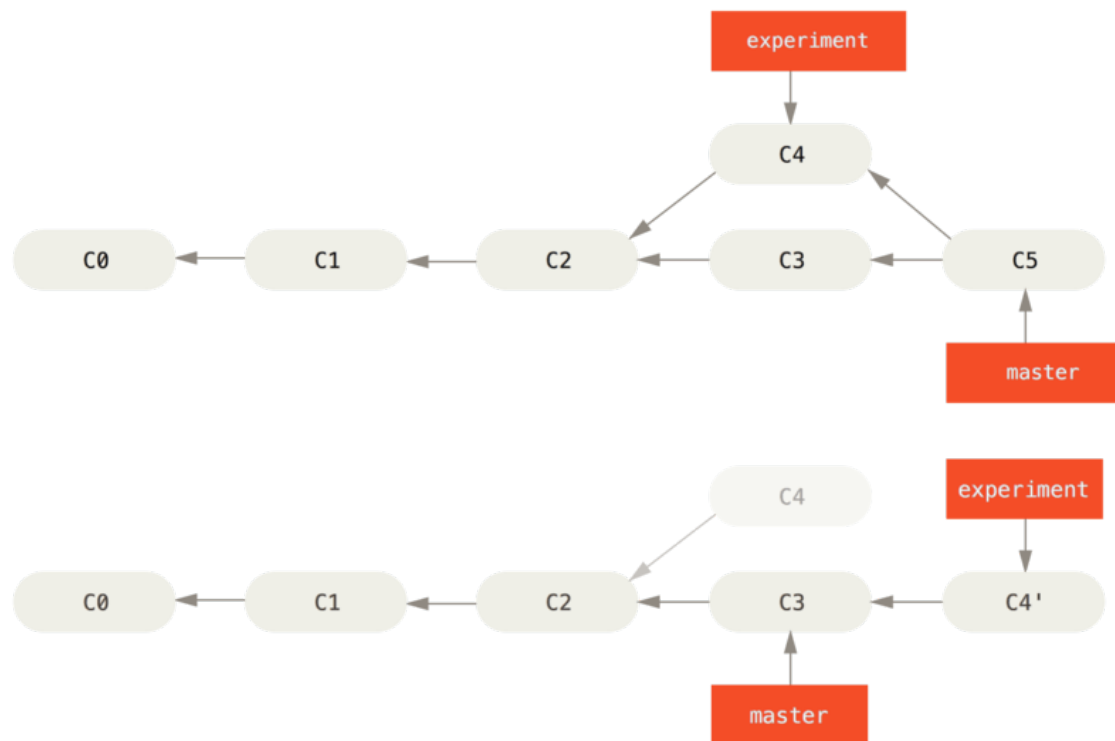
- `$ git pull`
- `$ git fetch`
- `$ git merge`

```
medowhill — ubuntu@ip-172-31-4-8: ~/workspace2/gitseminarprac — ssh -i medowhill.pem ubuntu@52...
[ubuntu@ip-172-31-4-8:~/workspace2/gitseminarprac$ git commit
[master d94310b] add helper function return itself
1 file changed, 1 insertion(+)
[ubuntu@ip-172-31-4-8:~/workspace2/gitseminarprac$ git push
Username for 'https://github.com': Medowhill
Password for 'https://Medowhill@github.com':
Counting objects: 3, done.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 301 bytes | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Medowhill/gitseminarprac.git
6fccdf..d94310b master -> master
ubuntu@ip-172-31-4-8:~/workspace2/gitseminarprac$
```

```
medowhill — ubuntu@ip-172-31-4-8: ~/workspace/gitseminarprac — ssh -i medowhill.pem ubuntu@52...
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git commit
[master 8a8afce] add helper function
1 file changed, 1 insertion(+)
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git status
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 directory clean
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git push
Username for 'https://github.com': Medowhill
Password for 'https://Medowhill@github.com':
To https://github.com/Medowhill/gitseminarprac.git
! [rejected] master -> master (fetch first)
error: failed to push some refs to 'https://github.com/Medowhill/gitseminarprac.git'
hint: Updates were rejected because the remote contains work that you do
hint: not have locally. This is usually caused by another repository pushing
hint: to the same ref. You may want to first integrate the remote changes
hint: (e.g., 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git fetch
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (1/1), done.
remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/Medowhill/gitseminarprac
6fccdf..d94310b master -> origin/master
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git status
On branch master
Your branch and 'origin/master' have diverged,
and have 1 and 1 different commit each, respectively.
(use "git pull" to merge the remote branch into yours)
nothing to commit, working directory clean
```

Rebase (1/2)

- `$ git pull --rebase`



```
medowhill — ubuntu@ip-172-31-4-8: ~/workspace2/gitseminarprac — ssh -i medowhill.pem ubuntu@52...
[ubuntu@ip-172-31-4-8:~/workspace2/gitseminarprac$ git commit
[master d773776] add hello2 val
1 file changed, 1 insertion(+)
[ubuntu@ip-172-31-4-8:~/workspace2/gitseminarprac$ git push
Username for 'https://github.com': Medowhill
Password for 'https://Medowhill@github.com':
Counting objects: 3, done.
Compressing objects: 100% (3/3), done.
Writing objects: 100% (3/3), 349 bytes | 0 bytes/s, done.
Total 3 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/Medowhill/gitseminarprac.git
b3959ee..d773776 master -> master
```

```
medowhill — ubuntu@ip-172-31-4-8: ~/workspace/gitseminarprac — ssh -i medowhill.pem ubuntu@52.7...
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git commit
[master 145a79e] add one more print
1 file changed, 1 insertion(+)
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git pull --rebase
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 1), reused 3 (delta 1), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/Medowhill/gitseminarprac
b3959ee..d773776 master -> origin/master
First, rewinding head to replay your work on top of it...
Applying: add one more print
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git log
commit 4f8a91c1fd687aec9864072934a554cf703819ae
Author: Jaemin Hong <hjm0901@gmail.com>
Date: Tue Nov 7 14:50:20 2017 +0000

    add one more print

commit d77377685785191ff46aa8231b0b78a5ca770d05
Author: Jaemin Hong <hjm0901@gmail.com>
Date: Tue Nov 7 14:49:42 2017 +0000

    add hello2 val
```

Rebase (2/2)

- `$ git checkout [branch1]`
- `$ git rebase [branch0]`
- `$ git checkout [branch0]`
- `$ git merge [branch1]`

```
medowhill — ubuntu@ip-172-31-4-8: ~/workspace/gitseminarprac — ssh -i medowhill.pem ubuntu@52.7...
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git checkout -b hotfix
Switched to a new branch 'hotfix'
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ vim Student.scala
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git add Student.scala
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git commit
[hotfix 25ca676] add student class
 1 file changed, 1 insertion(+)
 create mode 100644 Student.scala
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ 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)
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ vim Hello.scala
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git add Hello.scala
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git commit
[master 2f55b39] add one more print
 1 file changed, 1 insertion(+)
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git checkout hotfix
Switched to branch 'hotfix'
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git rebase master
First, rewinding head to replay your work on top of it...
Applying: add student class
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git checkout master
Switched to branch 'master'
Your branch is ahead of 'origin/master' by 2 commits.
  (use "git push" to publish your local commits)
[ubuntu@ip-172-31-4-8:~/workspace/gitseminarprac$ git merge hotfix
Updating 2f55b39..704e67c
Fast-forward
 Student.scala | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 Student.scala
```

Reference

- <https://git-scm.com/book/ko/v2>