

컴퓨터프로젝트관리

5. Github collaborator

Review

init

지정된 폴더의 변경 내용을 추적하기 위한 준비

commit

수정 내역을 사용자 기준의 의미로 기록한다

add

commit 할 파일들을 추가

Review

branch

완전히 독립된 작업 공간을 만들 수 있다.

checkout

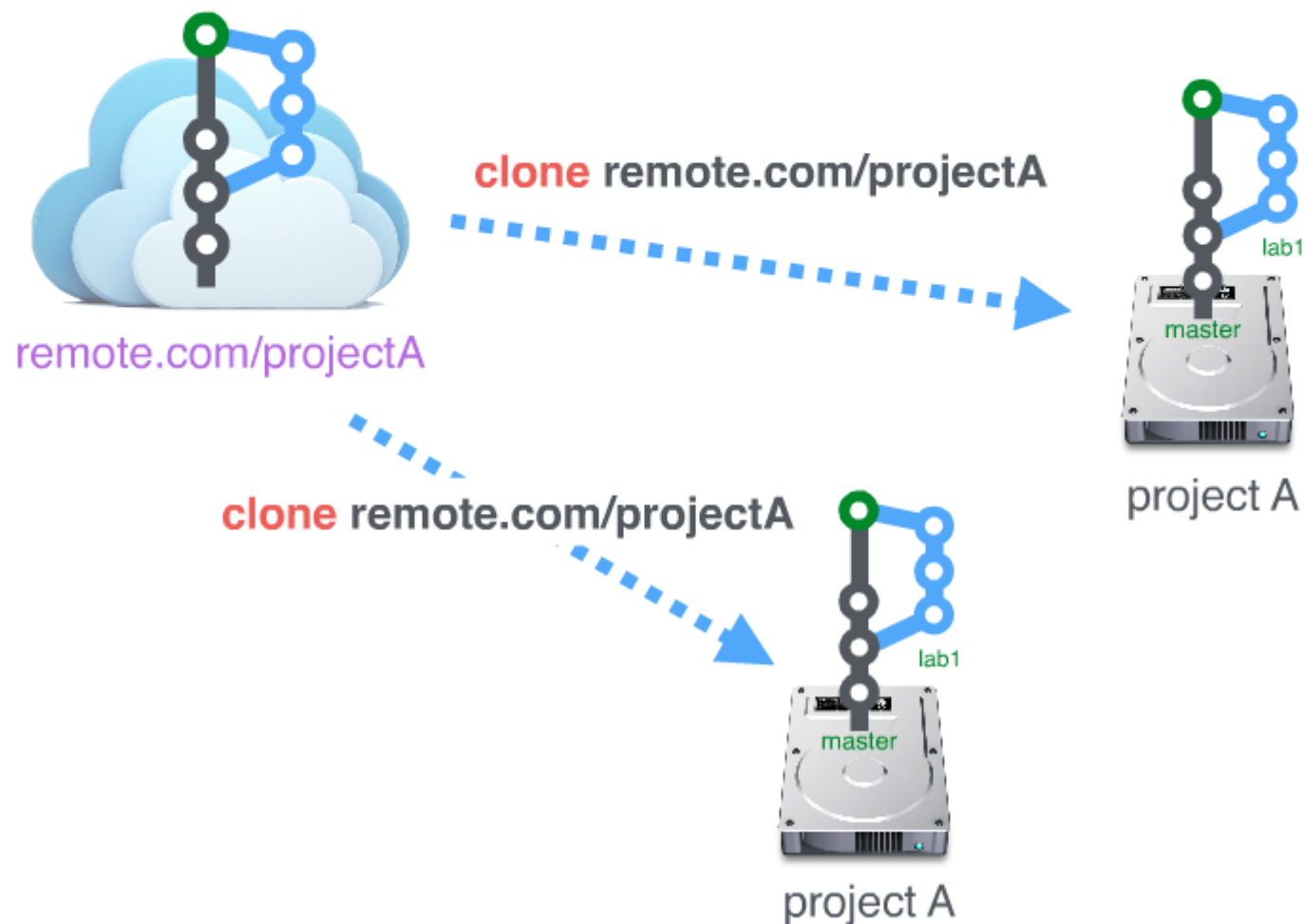
독립된 작업 공간인 브랜치를 자유롭게 이동할 수 있다.

merge

브랜치와 브랜치간 내용을 병합할 수 있다.

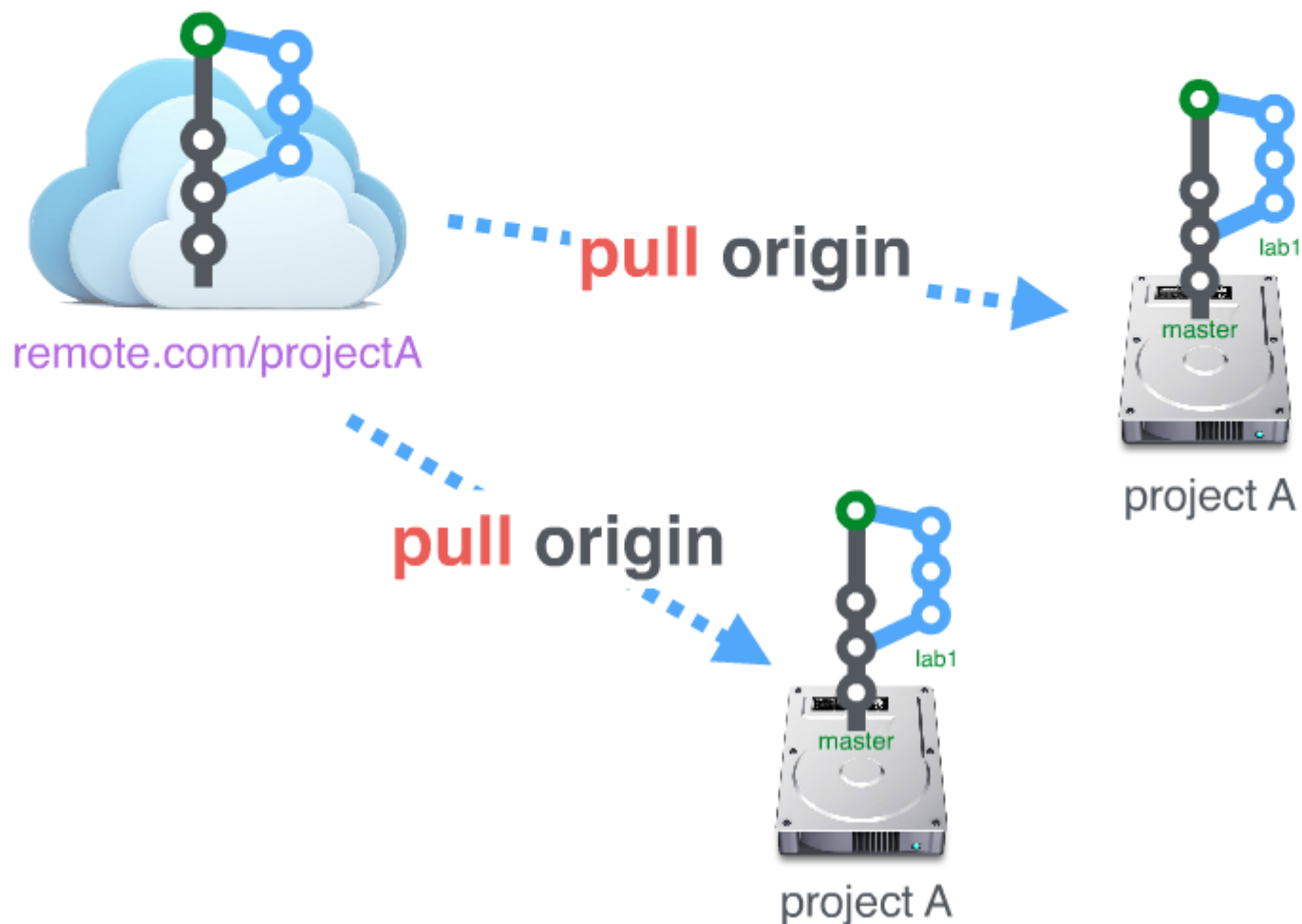
리모트 저장소에서 저장소 다운로드

리모트 저장소에서 처음으로 git 저장소를 다운로드 받는 것을
복사본을 만든다는 의미로 clone 이라 한다.



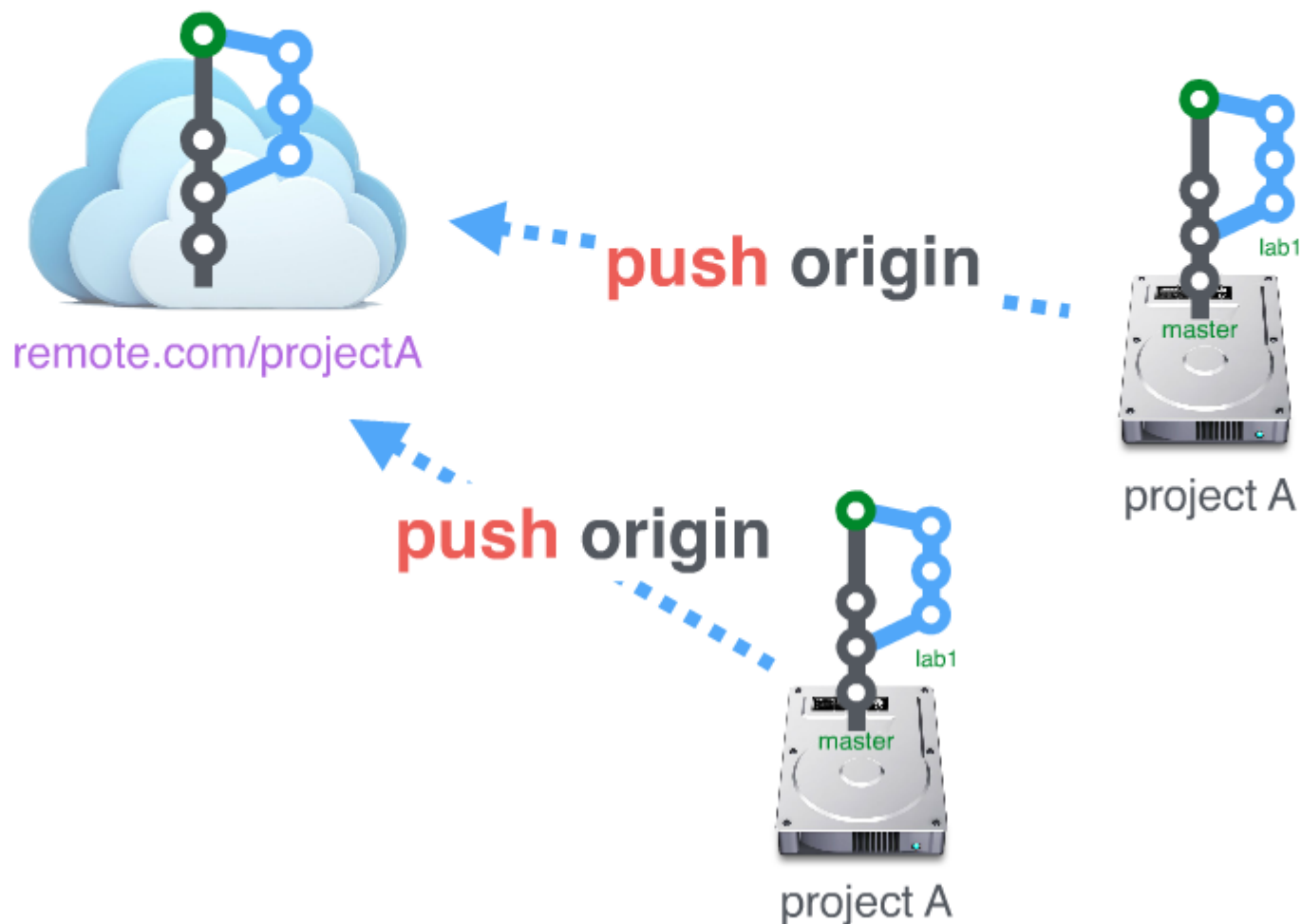
리모트 저장소의 변경 내용 업데이트

리모트 저장소의 변경된 내용을 로컬(내 컴퓨터) 저장소에 적용하는 작업을 Pull 이라 한다. 이때 브랜치 병합과 같은 병합이 발생한다.



내 저장소(로컬 저장소)의 변경 내용 리모트로 전송하기


로컬(내 컴퓨터) 저장소에서 작업한 내용을 리모트 저장소로 보내는 작업을 Push라 한다. 함께 작업하는 동료에서 변경사항을 전송하기 위해선 리모트 저장소를 경유해야 한다는 것을 알 수 있다.




Github collaborator

- Github 프로젝트를 생성했다면 **다른 사람과 협업을 진행해야 하는 상황**이 있다.
- 이 때 **생성한 소스를 내려받고 (pull) / 업로드 (push) 할 수 있는 권한**을 주어야한다.
- 그 과정을 **github에서는 collaborator** 를 추가한다고 한다.

Github.com



[Pull requests](#) [Issues](#) [Marketplace](#) [Explore](#)

[+](#) 



Learn Git and GitHub without any code!

Using the Hello World guide, you'll create a repository, start a branch, write comments, and open a pull request.


[Read the guide](#)[Start a project](#)

Repository 생성

Create a new repository

A repository contains all the files for your project, including the revision history.

Owner

 zoro0rkd ▾

Repository name

/ collabo ✓

Great repository names are short and memorable. Need inspiration? How about [expert-engine](#).

Description (optional)



Public

Anyone can see this repository. You choose who can commit.



Private

You choose who can see and commit to this repository.



Initialize this repository with a README

This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: None ▾

Add a license: None ▾



Create repository

Collaborator 추가

zoro0rkd / collabo

Watch 0

Star 0

Fork 0

<> Code

! Issues 0

🔗 Pull requests 0

📁 Projects 0

📖 Wiki

📊 Insights

⚙️ Settings

Quick setup — if you've done this kind of thing before

📄 Set up in Desktop

 or

HTTPS SSH

https://github.com/zoro0rkd/collabo.git

📄

We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

```
echo "# collabo" >> README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin https://github.com/zoro0rkd/collabo.git
git push -u origin master
```

📄

Collaborator 추가

zoro0rkd / collabo

Watch 0

Star 0

Fork 0

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! Issues 0

🔗 Pull requests 0

📁 Projects 0

📖 Wiki

📊 Insights

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 or

HTTPS

SSH

https://github.com/zoro0rkd/collabo.git

📄

We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

...or create a new repository on the command line

```
echo "# collabo" >> README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin https://github.com/zoro0rkd/collabo.git
git push -u origin master
```

📄

Collaborator 추가

zoro0rkd / collabo

Watch 0

Star 0

Fork 0

<> Code

! Issues 0

🔗 Pull requests 0

📁 Projects 0

📖 Wiki

📊 Insights

⚙️ Settings

Options

Collaborators

Webhooks

Integrations & services

Deploy keys

Settings

Repository name

collabo

Rename

Features

Collaborator 추가

zoro0rkd / collabo

Watch 0

Star 0

Fork 0

<> Code

! Issues 0

🔗 Pull requests 0

📁 Projects 0

📖 Wiki

📊 Insights

⚙️ Settings

Options

Collaborators

Webhooks

Integrations & services

Deploy keys

Collaborators

Push access to the repository


This repository doesn't have any collaborators yet. Use the form below to add a collaborator.

Search by username, full name or email address
You'll only be able to find a GitHub user by their email address if they've chosen to list it publicly. Otherwise, use their username instead.

kai1945

×

Add collaborator

 kai1945

Collaborator 추가

zoro0rkd / collabo

Watch 0

Star 0

Fork 0

<> Code

! Issues 0

🔗 Pull requests 0

📁 Projects 0

📖 Wiki

📊 Insights

⚙️ Settings

Options

Collaborators


Webhooks

Integrations & services

Deploy keys

Collaborators

Push access to the repository

 Awaiting kai1945's response

Copy invite link


Cancel invite

Search by username, full name or email address




You'll only be able to find a GitHub user by their email address if they've chosen to list it publicly. Otherwise, use their username instead.

Add collaborator

Collaborator 승인



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Discover interesting projects and people to populate your personal news feed.

Your news feed helps you keep up with recent activity on repositories you [watch](#) and people you [follow](#).

[Explore GitHub](#)




GitHub Universe
October 10-12 in San Francisco

Your repositories 6




[New repository](#)


[All](#) [Public](#) [Private](#) [Sources](#) [Forks](#)


Collaborator 승인



[Pull requests](#) [Issues](#) [Marketplace](#) [Explore](#)

 Notifications

 Watching


Mark all as read


Unread 1

Participating 0

All notifications

zoro0rkd/collabo

 Invitation to join zoro0rkd/collabo from zoro0rkd

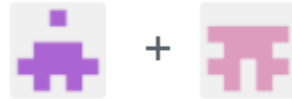
 4 minutes ago

✓

zoro0rkd/collabo 1

Collaborator 승인

 zoro0rkd / collabo




zoro0rkd invited you to collaborate


Accept invitation

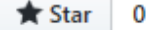
Decline

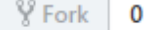
Is this user sending spam or malicious content? You can [block @zoro0rkd](#).

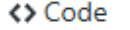
Collaborator 승인완료

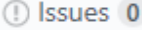
 zoro0rkd / collabo


 Watch 0


 Star 0


 Fork 0

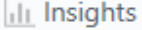
 Code


 Issues 0

 Pull requests 0


 Projects 0

 Wiki

 Insights

 Settings

Quick setup — if you've done this kind of thing before


 Set up in Desktop

 or

HTTPS

SSH


https://github.com/zoro0rkd/collabo.git



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...or create a new repository on the command line

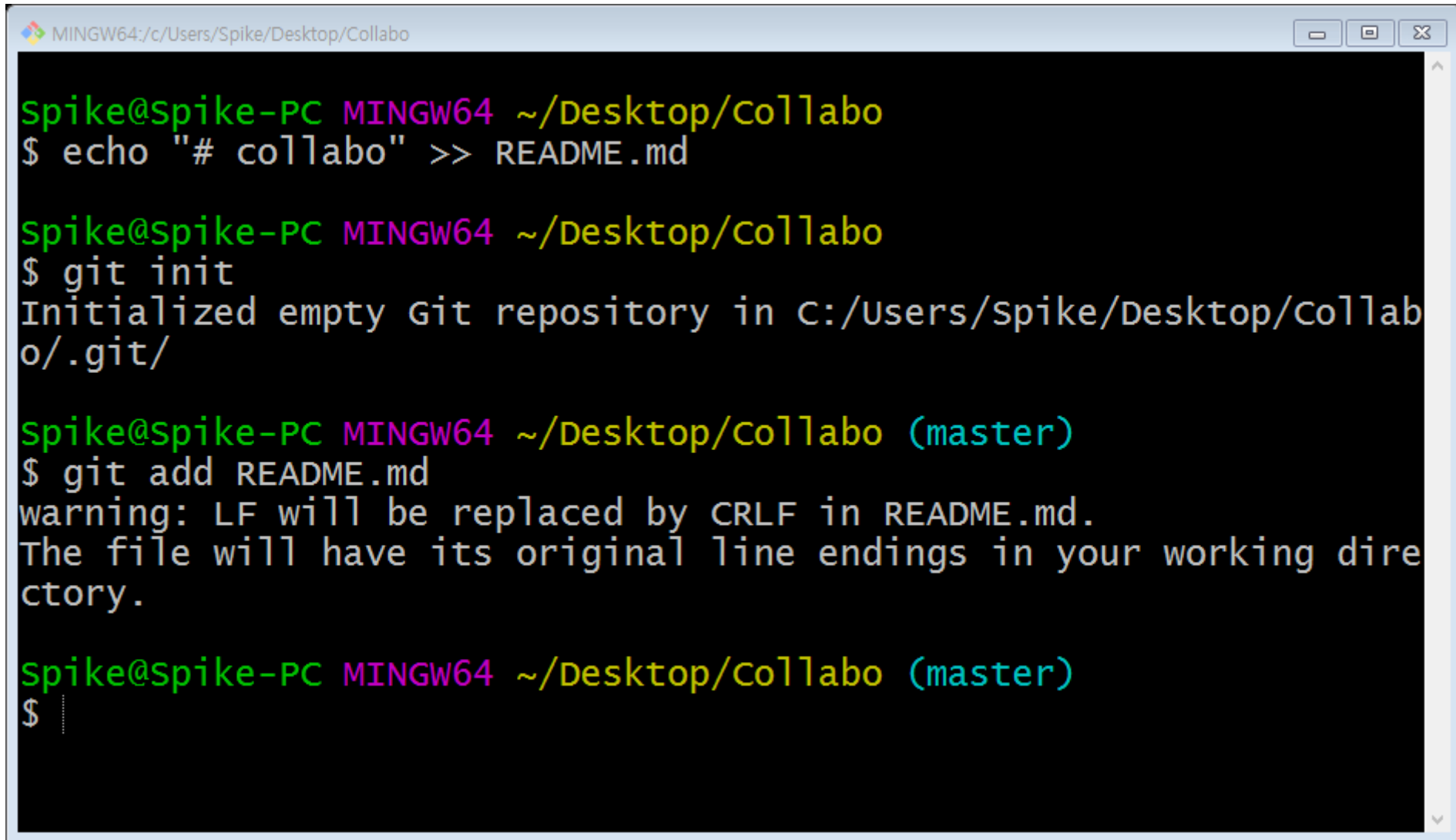
```
echo "# collabo" >> README.md
git init
git add README.md
git commit -m "first commit"
git remote add origin https://github.com/zoro0rkd/collabo.git
git push -u origin master
```



Folder 생성



1 - Git init & add



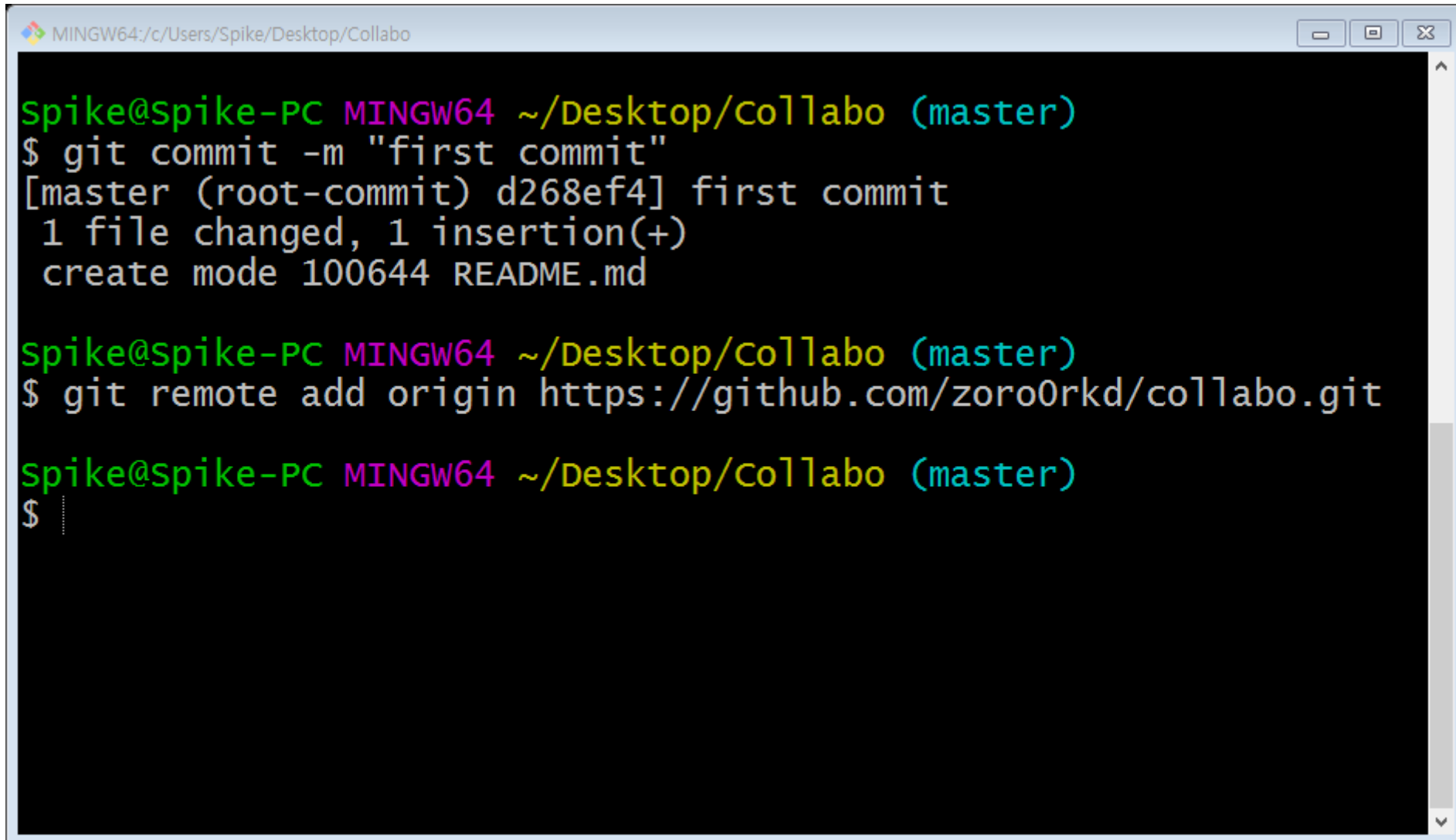
```
MINGW64:/c/Users/Spike/Desktop/Collabo
spike@Spike-PC MINGW64 ~/Desktop/Collabo
$ echo "# collabo" >> README.md

spike@Spike-PC MINGW64 ~/Desktop/Collabo
$ git init
Initialized empty Git repository in C:/Users/spike/Desktop/Collabo/.git/

spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$ git add README.md
warning: LF will be replaced by CRLF in README.md.
The file will have its original line endings in your working directory.

spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$
```

1 - Git commit & remote

A terminal window titled 'MINGW64:/c/Users/Spike/Desktop/Collabo' with standard Windows window controls. The terminal shows a series of Git commands and their outputs. The first command is 'git commit -m "first commit"', which results in a commit hash 'd268ef4' and a message 'first commit'. It also shows '1 file changed, 1 insertion(+)' and 'create mode 100644 README.md'. The second command is 'git remote add origin https://github.com/zoro0rkd/collabo.git'. The third command is partially visible as 'git remote push origin master'.

```
MINGW64:/c/Users/Spike/Desktop/Collabo

spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$ git commit -m "first commit"
[master (root-commit) d268ef4] first commit
1 file changed, 1 insertion(+)
create mode 100644 README.md

spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$ git remote add origin https://github.com/zoro0rkd/collabo.git

spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$ git remote push origin master
```

1 - Git push


```
MINGW64:/c/Users/Spike/Desktop/Collabo
$ git commit -m "first commit"
[master (root-commit) d268ef4] first commit
1 file changed, 1 insertion(+)
create mode 100644 README.md




spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$ git remote add origin https://github.com/zoro0rkd/collabo.git







spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$ git push -u origin master
Counting objects: 3, done.
Writing objects: 100% (3/3), 217 bytes | 217.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/zoro0rkd/collabo.git
 * [new branch]      master -> master
Branch master set up to track remote branch master from origin.

spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$
```





2 - Git clone

 zoro0rkd / collabo


 Unwatch 1  Star 0  Fork 0


 Code  Issues 0  Pull requests 0  Projects 0  Wiki  Insights


No description, website, or topics provided.

 1 commit  1 branch  0 releases  1 contributor

Branch: master ▾ New pull request Create new file Upload files Find file Clone or download ▾


 kai1945 first commit

 README.md first commit

 README.md

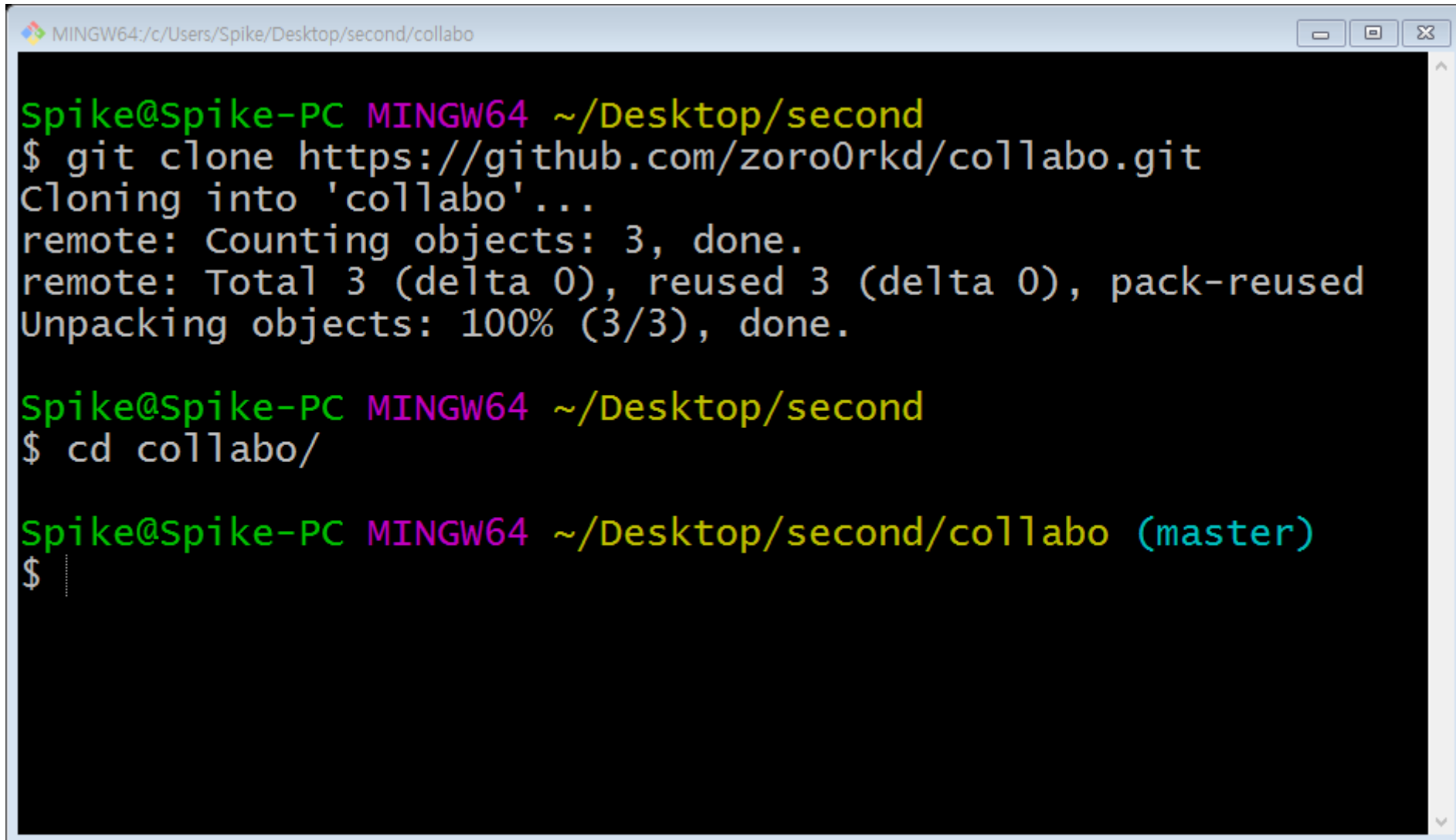
Clone with HTTPS ⓘ Use SSH

Use Git or checkout with SVN using the web URL.

`https://github.com/zoro0rkd/collabo.git` 

Open in Desktop Download ZIP

2 - Git clone

A screenshot of a Windows terminal window titled "MINGW64:/c/Users/Spike/Desktop/second/collabo". The terminal shows the execution of the 'git clone' command to clone a repository from GitHub. The output shows the cloning process, including counting objects, total size, and unpacking. The user then changes the directory to the cloned repository and the terminal shows the current directory and branch.

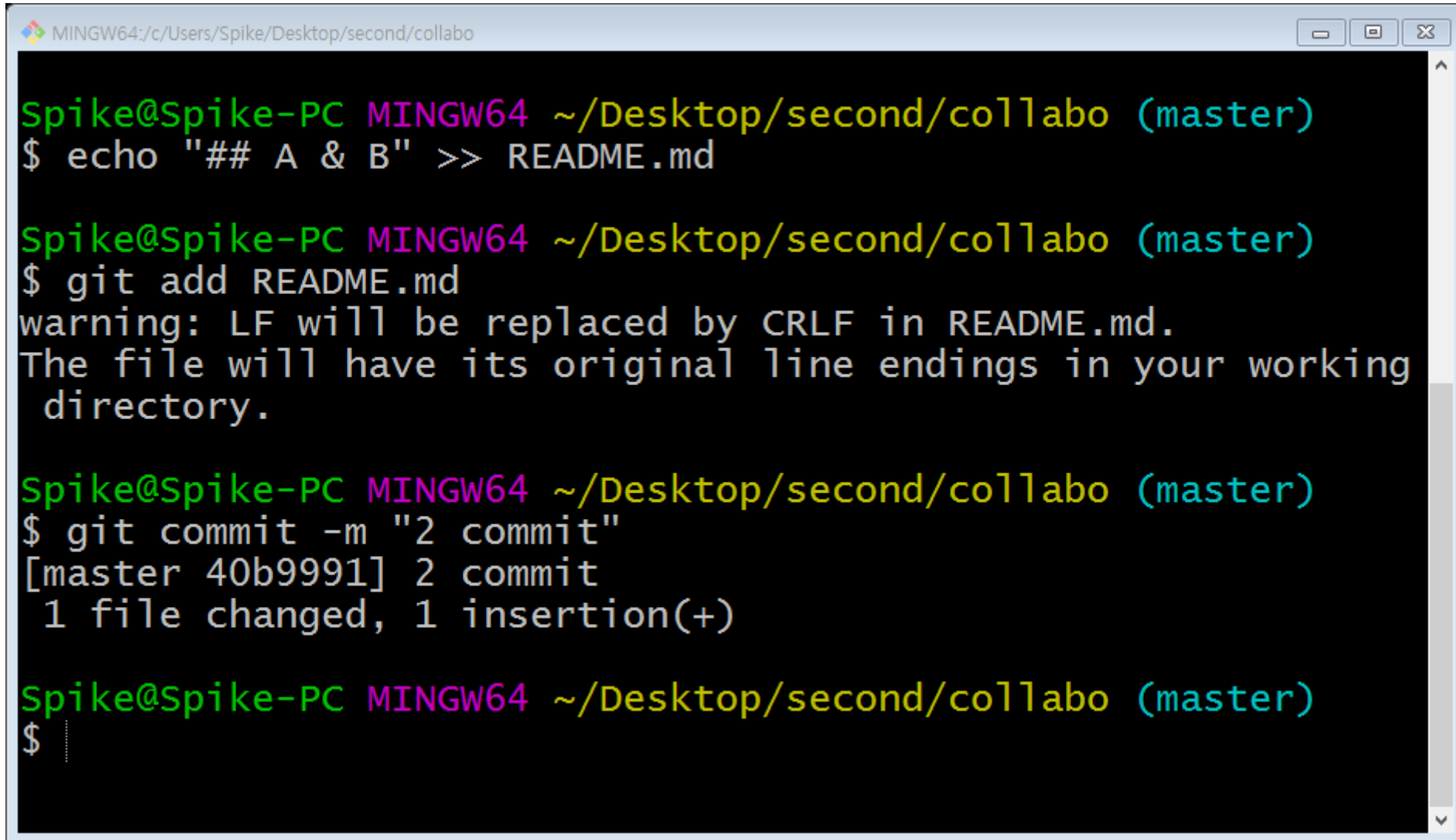
```
MINGW64:/c/Users/Spike/Desktop/second/collabo

Spike@Spike-PC MINGW64 ~/Desktop/second
$ git clone https://github.com/zoro0rkd/collabo.git
Cloning into 'collabo'...
remote: Counting objects: 3, done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused
Unpacking objects: 100% (3/3), done.

Spike@Spike-PC MINGW64 ~/Desktop/second
$ cd collabo/

Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (master)
$
```


2 - Git add & commit



```
MINGW64:/c/Users/Spike/Desktop/second/collabo
Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (master)
$ echo "## A & B" >> README.md

Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (master)
$ git add README.md
warning: LF will be replaced by CRLF in README.md.
The file will have its original line endings in your working
directory.

Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (master)
$ git commit -m "2 commit"
[master 40b9991] 2 commit
1 file changed, 1 insertion(+)

Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (master)
$
```

2 - Git push

```
MINGW64:/c/Users/Spike/Desktop/second/collabo

Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (master)
$ git commit -m "2 commit"
[master 40b9991] 2 commit
1 file changed, 1 insertion(+)

Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (master)
$ git push -u origin master
Counting objects: 3, done.
Writing objects: 100% (3/3), 253 bytes | 253.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/zoro0rkd/collabo.git
    d268ef4..40b9991  master -> master
Branch master set up to track remote branch master from origin.

Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (master)
$
```

1 - Git pull

```
MINGW64:/c/Users/Spike/Desktop/Collabo
spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$ git pull
remote: Counting objects: 3, done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/zoro0rkd/collabo
   d268ef4..40b9991  master    -> origin/master
Updating d268ef4..40b9991
Fast-forward
 README.md | 1 +
 1 file changed, 1 insertion(+)

spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$
```

Github.com

zoro0rkd / collabo

Unwatch ▾

1

★ Star

0

🍴 Fork

0

↔ Code

! Issues 0

🔗 Pull requests 0

📁 Projects 0

📖 Wiki

📊 Insights

No description, website, or topics provided.

🕒 2 commits

🌿 1 branch

📦 0 releases

👤 1 contributor

Branch: master ▾

New pull request

Create new file

Upload files

Find file

Clone or download ▾

👤 kai1945 2 commit

Latest commit 40b9991 5 minutes ago

📄 README.md

2 commit

5 minutes ago

📖 README.md

collabo

A & B

1, 2 - branch & checkout

MINGW64:/c/Users/Spike/Desktop/Collabo

```
spike@Spike-PC MINGW64 ~/Desktop/Collabo
$ git branch first
```

```
spike@Spike-PC MINGW64 ~/Desktop/Collabo
$ git checkout first
Switched to branch 'first'
```

```
spike@Spike-PC MINGW64 ~/Desktop/Collabo
$
```

MINGW64:/c/Users/Spike/Desktop/second/collabo

```
Spike@Spike-PC MINGW64 ~/Desktop/second
$ git branch second
```

```
Spike@Spike-PC MINGW64 ~/Desktop/second
$ git checkout second
Switched to branch 'second'
```

```
Spike@Spike-PC MINGW64 ~/Desktop/second
$
```

1, 2 - Git add & commit

MINGW64:/c/Users/Spike/Desktop/Collabo

```
spike@Spike-PC MINGW64 ~/Desktop/Collabo (f
$ echo "my name is " >> first.txt
```

```
spike@Spike-PC MINGW64 ~/Desktop/Collabo (f
$ git add first.txt
warning: LF will be replaced by CRLF in fir
The file will have its original line ending
ctory.
```

```
spike@Spike-PC MINGW64 ~/Desktop/Collabo (f
$ git commit -m "add txt"
[first 11701c5] add txt
1 file changed, 1 insertion(+)
create mode 100644 first.txt
```

```
spike@Spike-PC MINGW64 ~/Desktop/Collabo (f
$
```

MINGW64:/c/Users/Spike/Desktop/second/collabo

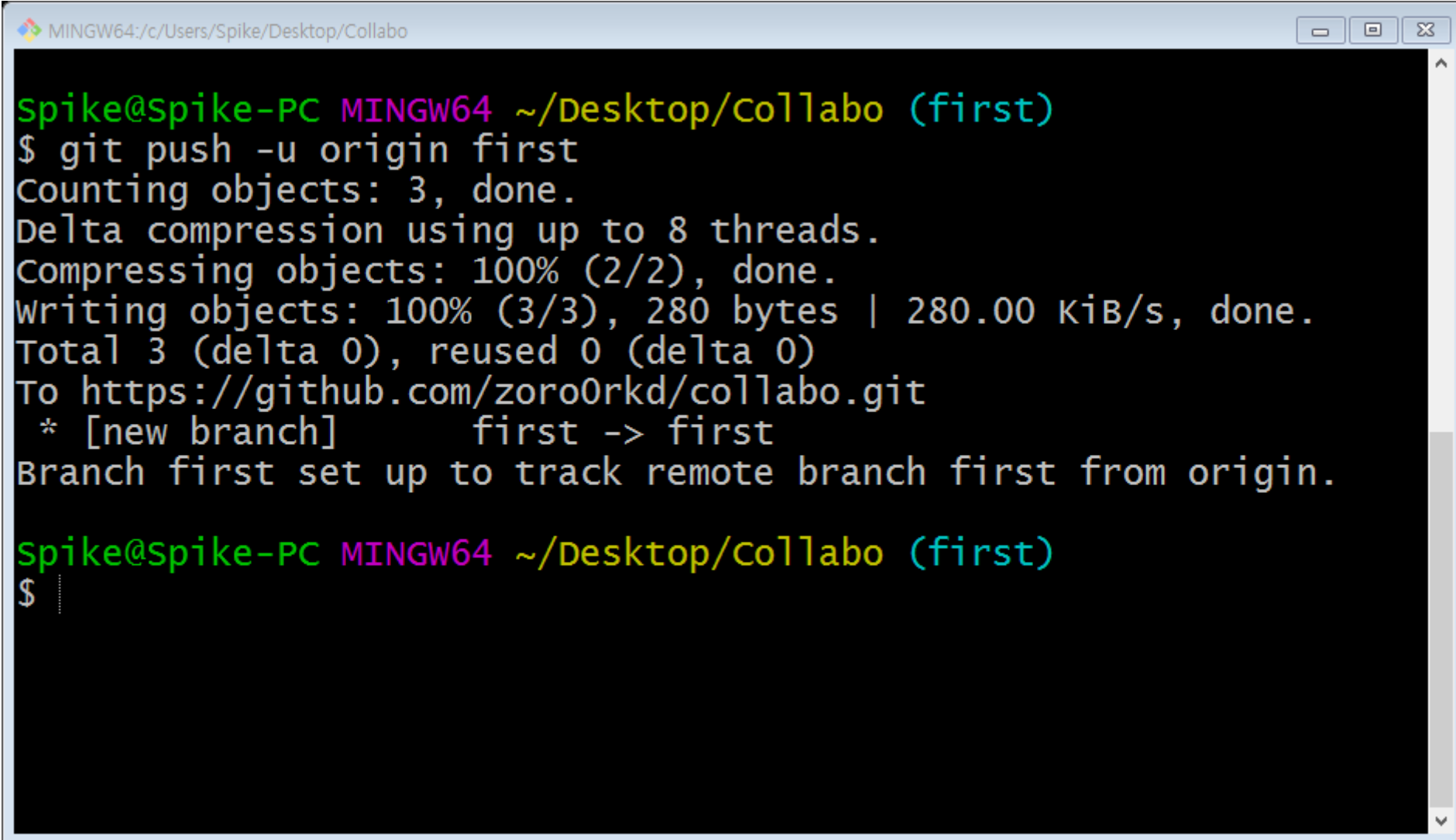
```
Spike@Spike-PC MINGW64 ~/Desktop/second/
$ echo "my name is " >> second.txt
```

```
Spike@Spike-PC MINGW64 ~/Desktop/second/
$ git add second.txt
warning: LF will be replaced by CRLF in
The file will have its original line end
directory.
```

```
Spike@Spike-PC MINGW64 ~/Desktop/second/
$ git commit -m "add txt"
[second a1002d7] add txt
1 file changed, 1 insertion(+)
create mode 100644 second.txt
```

```
Spike@Spike-PC MINGW64 ~/Desktop/second/
$
```

1 - Git push

A screenshot of a Windows terminal window with a black background and white text. The window title bar shows the path 'MINGW64:/c/Users/Spike/Desktop/Collabo'. The terminal displays the execution of the 'git push' command, showing progress for counting, compressing, and writing objects, and finally confirming the push to the remote repository.

```
spike@Spike-PC MINGW64 ~/Desktop/Collabo (first)
$ git push -u origin first
Counting objects: 3, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 280 bytes | 280.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/zoro0rkd/collabo.git
 * [new branch]      first -> first
Branch first set up to track remote branch first from origin.

spike@Spike-PC MINGW64 ~/Desktop/Collabo (first)
$
```

2 - Git pull

```
MINGW64:/c/Users/Spike/Desktop/second/collabo
Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (second)
$ git pull
remote: Counting objects: 3, done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused
Unpacking objects: 100% (3/3), done.
From https://github.com/zoro0rkd/collabo
* [new branch]      first      -> origin/first
There is no tracking information for the current branch.
Please specify which branch you want to merge with.
See git-pull(1) for details.

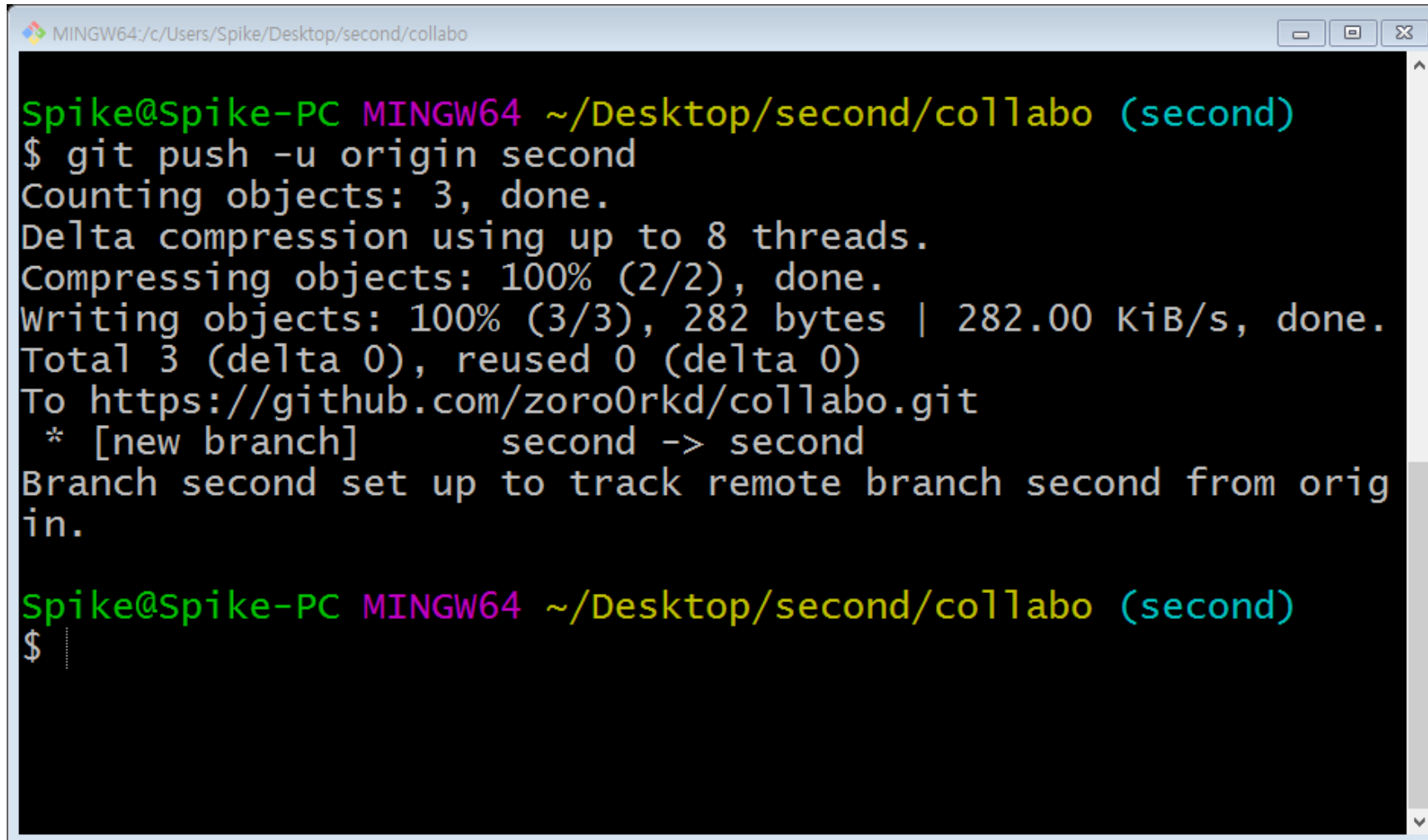
    git pull <remote> <branch>

If you wish to set tracking information for this branch you
can do so with:

    git branch --set-upstream-to=origin/<branch> second

Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (second)
$
```


2 - Git push



```
MINGW64/c/Users/Spike/Desktop/second/collabo
Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (second)
$ git push -u origin second
Counting objects: 3, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 282 bytes | 282.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/zoro0rkd/collabo.git
 * [new branch]          second -> second
Branch second set up to track remote branch second from origin.

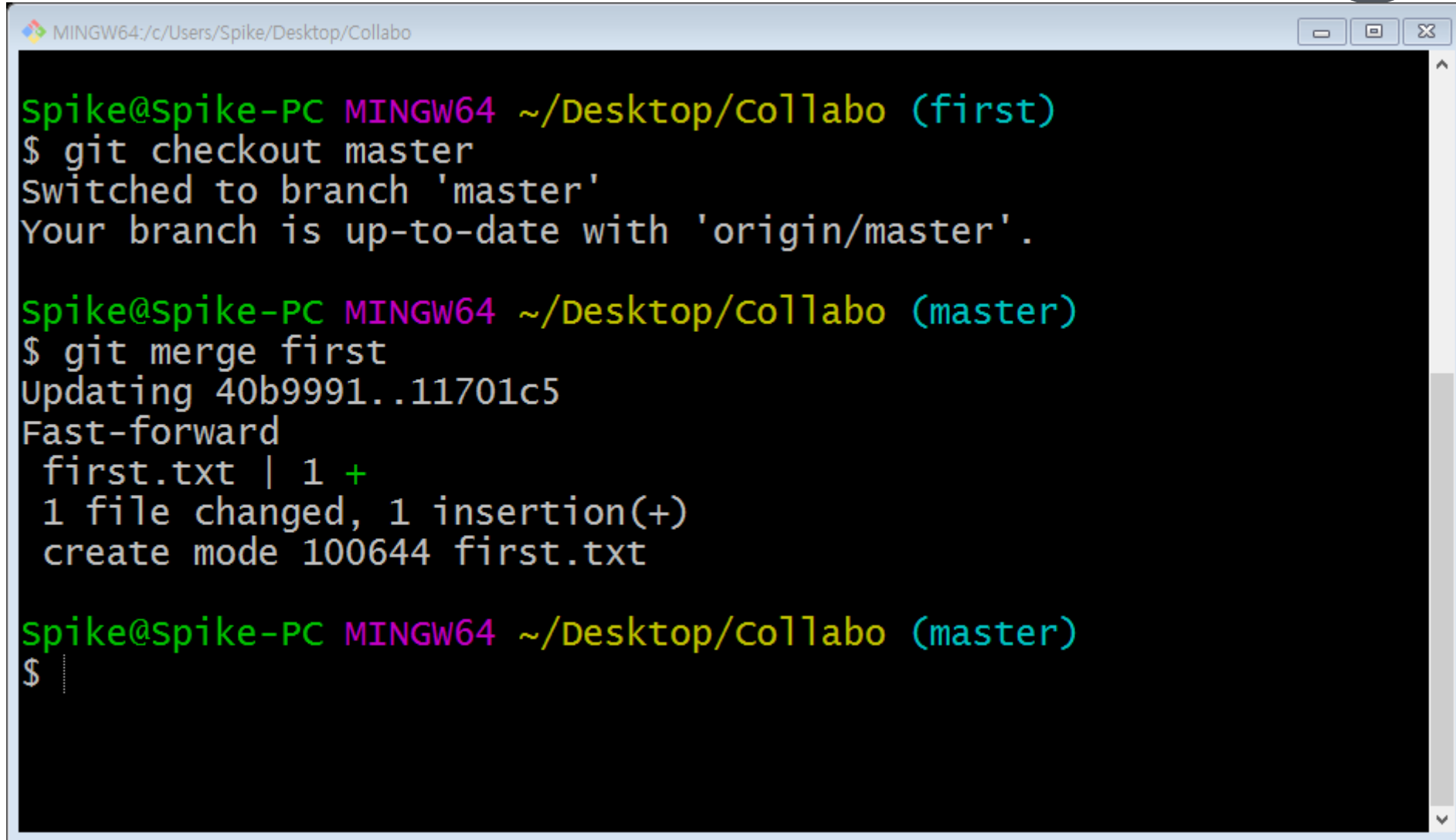
Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (second)
$
```

1 - Git pull

```
MINGW64:/c/Users/Spike/Desktop/Collabo
spike@Spike-PC MINGW64 ~/Desktop/Collabo (first)
$ git pull
remote: Counting objects: 3, 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/zoro0rkd/collabo
* [new branch]      second      -> origin/second
Already up-to-date.

spike@Spike-PC MINGW64 ~/Desktop/Collabo (first)
$
```

1 – checkout & merge



```
MINGW64:/c/Users/Spike/Desktop/Collabo

spike@Spike-PC MINGW64 ~/Desktop/Collabo (first)
$ git checkout master
Switched to branch 'master'
Your branch is up-to-date with 'origin/master'.

spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$ git merge first
Updating 40b9991..11701c5
Fast-forward
 first.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 first.txt

spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$
```

1 – Git push

A terminal window with a light blue title bar. The title bar text is 'MINGW64:/c/Users/Spike/Desktop/Collabo'. On the right side of the title bar are three icons: a minus sign, a maximize button, and a close button. The terminal content is as follows:

```
spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$ git push -u origin master
Total 0 (delta 0), reused 0 (delta 0)
To https://github.com/zoro0rkd/collabo.git
    40b9991..11701c5  master -> master
Branch master set up to track remote branch master from origin.

spike@Spike-PC MINGW64 ~/Desktop/Collabo (master)
$
```

2 – Git pull

- Git pull

2 – checkout & merge



```
MINGW64:/c/Users/Spike/Desktop/second/collabo

Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (second)
$ git checkout master
Switched to branch 'master'
Your branch is up-to-date with 'origin/master'.

Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (master)
$ git merge second
Updating 40b9991..a1002d7
Fast-forward
 second.txt | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 second.txt

Spike@Spike-PC MINGW64 ~/Desktop/second/collabo (master)
$
```

2- Git push

- git push

1 – Git pull

- git pull