

Git !(1)

20203312 김현우



VCS란 ?



버전 관리 시스템

Version Control System



설정	
계정	ver. 3.7.6.3768 다운로드 완료 개인정보처리방침 이용약관 오픈소스
보안	 업데이트
알림	
친구	
채팅	
화면	업데이트 히스토리
통화	ver. 3.7.6.3768 • 버그 수정 및 안정성 개선
고급	ver. 3.7.5.3766 • 프로필 프렌즈 스티커 추가 : 내 프로필에서 죠르디, 춘식이를 키워보세요. : 모바일에서 설정한 프렌즈 스티커를 확인해보세요. • 동영상 상세보기에 음량 조절 가능 추가 • 설정 메뉴 개선
실험실	
정보	ver. 3.7.0.3716 • 버그 수정 및 안정성 개선
	
설정	
계정	ver. 3.7.7.3773 최신버전입니다. 개인정보처리방침 이용약관 오픈소스
보안	
알림	
친구	
채팅	
화면	업데이트 히스토리
통화	ver. 3.7.7.3773 • 버그 수정 및 안정성 개선 • 이모지 복원
고급	
실험실	ver. 3.7.6.3770 • 버그 수정 및 안정성 개선
정보	ver. 3.7.6.3768 • 버그 수정 및 안정성 개선
	

과제_#1

```
1 #include <stdio.h>
2
3 int main() {
4     char operator;
5     float num1, num2, result;
6
7     // 연산자와 피연산자 입력 빙기
8     printf("Enter an operator (+, -, *, /): ");
9     scanf("%c", &operator);
10    printf("Enter two operands: ");
11    scanf("%f %f", &num1, &num2);
12
13    // 연산 수행
14    switch(operator) {
15        case '+':
16            result = num1 + num2;
17            printf("%.2f + %.2f = %.2f", num1, num2, result);
18            break;
19        case '-':
20            result = num1 - num2;
21            printf("%.2f - %.2f = %.2f", num1, num2, result);
22            break;
23        case '*':
24            result = num1 * num2;
25            printf("%.2f * %.2f = %.2f", num1, num2, result);
26            break;
27        case '/':
28            if(num2 != 0) {
29                result = num1 / num2;
30                printf("%.2f / %.2f = %.2f", num1, num2, result);
31            } else {
32                printf("Error! Division by zero.");
33            }
34            break;
35        default:
36            printf("Error! Invalid operator.");
37
38    }
39
40    return 0;
41 }
```

1st request

과제_#2

```
1 #include <stdio.h>
2 #include <math.h> // sqrt 함수를 사용하기 위해 필요한 헤더 파일
3
4 int main() {
5     char operator;
6     float num1, num2, result;
7
8     // 연산자와 피연산자 입력 빙기
9     printf("Enter an operator (+, -, *, /): ");
10    scanf("%c", &operator);
11    printf("Enter two operands: ");
12    scanf("%f %f", &num1, &num2);
13
14    // 연산 수행
15    switch(operator) {
16        case '+':
17            result = num1 + num2;
18            printf("%.2f + %.2f = %.2f", num1, num2, result);
19            break;
20        case '-':
21            result = num1 - num2;
22            printf("%.2f - %.2f = %.2f", num1, num2, result);
23            break;
24        case '*':
25            result = num1 * num2;
26            printf("%.2f * %.2f = %.2f", num1, num2, result);
27            break;
28        case '/':
29            if(num2 != 0) {
30                result = num1 / num2;
31                printf("%.2f / %.2f = %.2f", num1, num2, result);
32            } else {
33                printf("Error! Cannot compute square root of a negative number.");
34            }
35            break;
36        default:
37            printf("Error! Invalid operator.");
38
39    }
40
41    return 0;
42 }
```

2nd request

과제_#3

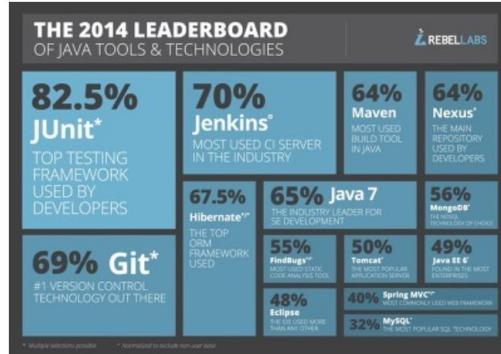
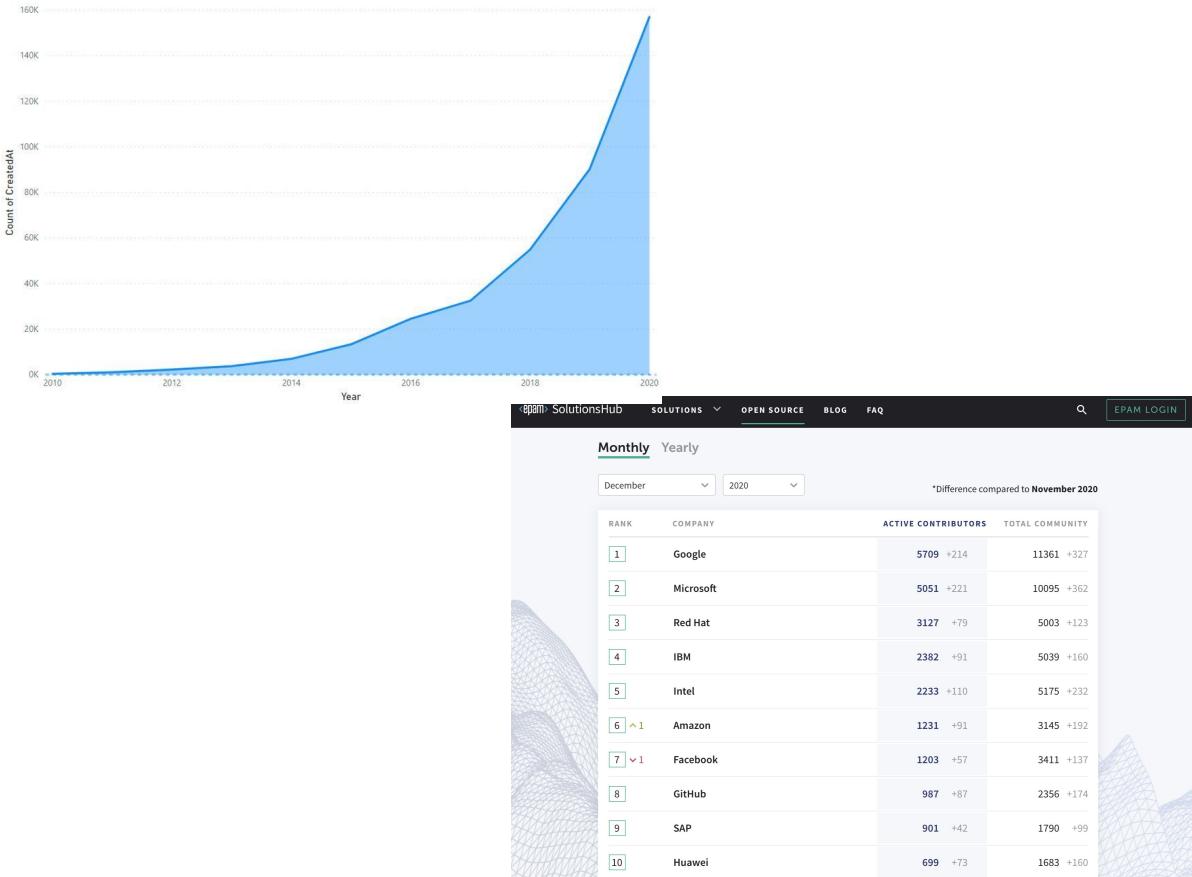
```
1 #include <stdio.h>
2
3 int main() {
4     char operator;
5     float num1, num2, result;
6
7     // 연산자와 피연산자 입력 빙기
8     printf("Enter an operator (+, -, *, /): ");
9     scanf("%c", &operator);
10    printf("Enter two operands: ");
11    scanf("%f %f", &num1, &num2);
12
13    // 연산 수행
14    switch(operator) {
15        case '+':
16            result = num1 + num2;
17            printf("%.2f + %.2f = %.2f", num1, num2, result);
18            break;
19        case '-':
20            result = num1 - num2;
21            printf("%.2f - %.2f = %.2f", num1, num2, result);
22            break;
23        case '*':
24            result = num1 * num2;
25            printf("%.2f * %.2f = %.2f", num1, num2, result);
26            break;
27        case '/':
28            if(num2 != 0) {
29                result = num1 / num2;
30                printf("%.2f / %.2f = %.2f", num1, num2, result);
31            } else {
32                printf("Error! Division by zero.");
33            }
34            break;
35        default:
36            printf("Error! Invalid operator.");
37
38    }
39
40    return 0;
41 }
```

3rd request



시간

Git을 알아야 하는 이유!



RhodeCode
@rhodecode · [Follow](#)

X

What is your #versioncontrol of choice in 2016?

Vote and share, then check the Insights:
bit.ly/vcs-popularity...

#Git 87.1%

#SVN #Subversion 6%

#Mercurial #Hg 5.2%

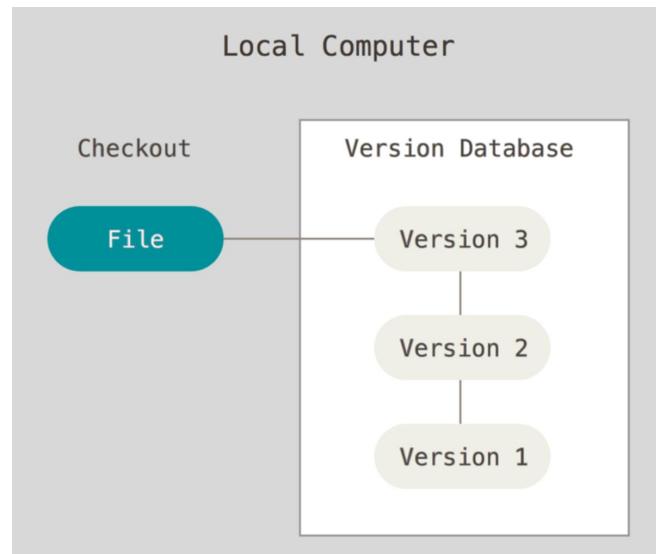
#Perforce 1.7%

881 votes · Final results
8:50 PM · Jul 18, 2016

12 Reply Share

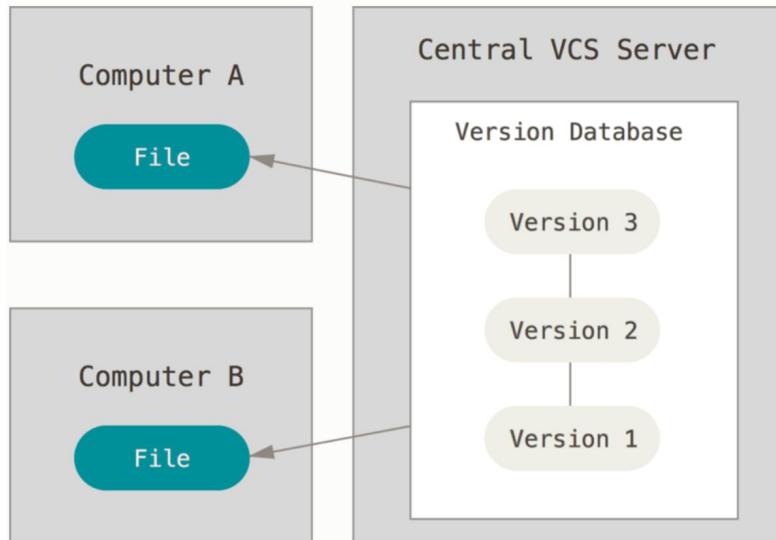
[Read 2 replies](#)

VCS의 구조

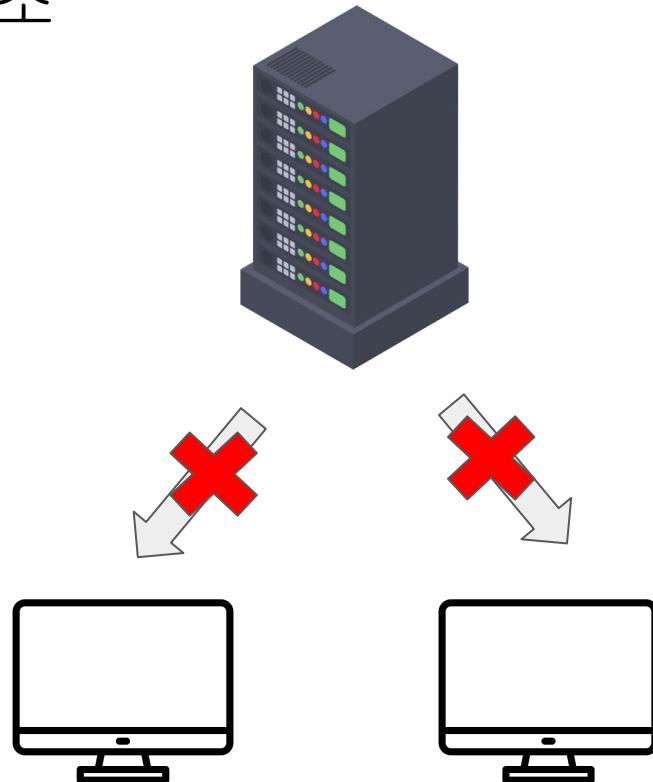


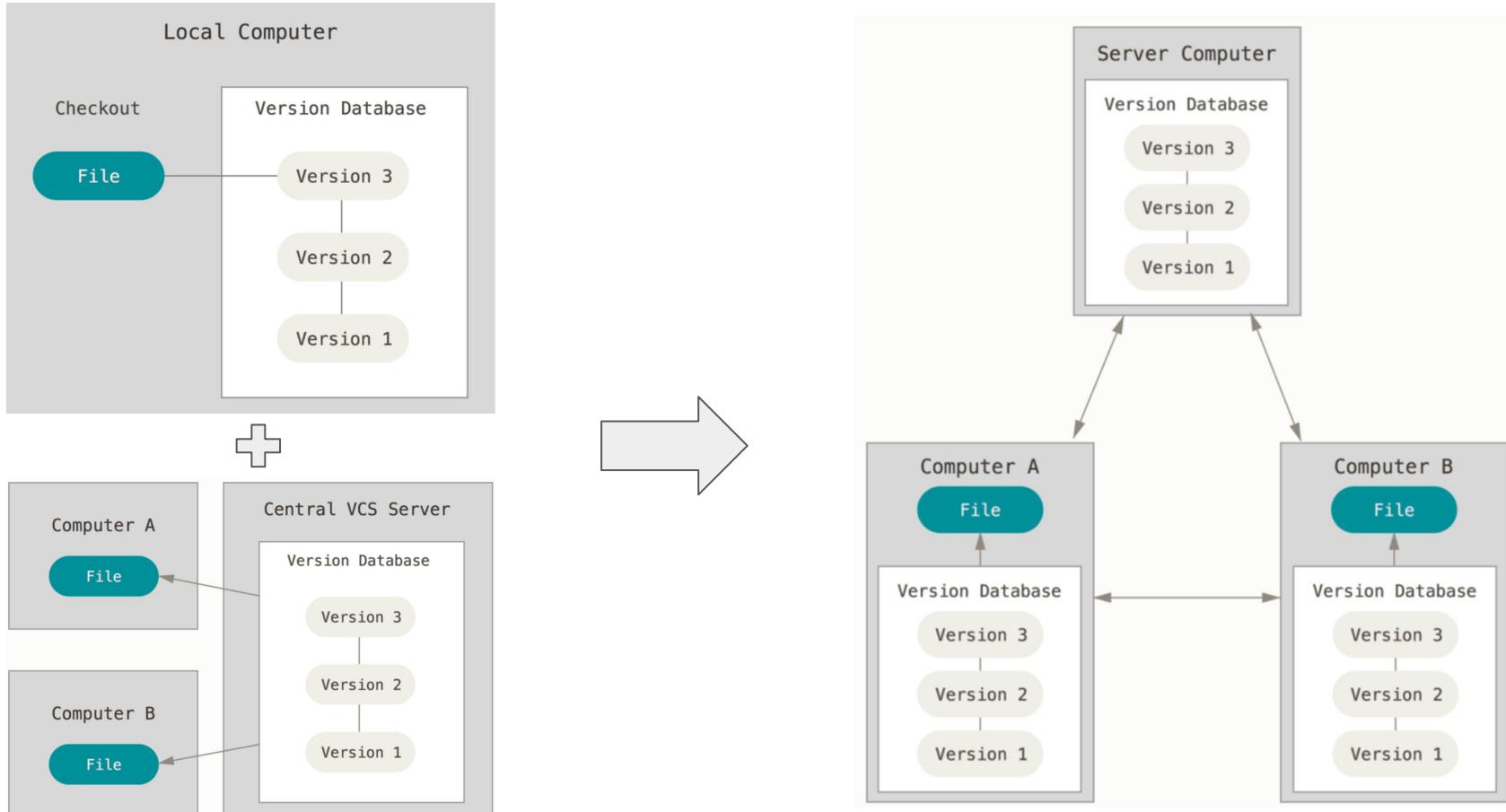
로컬 버전 관리 시스템

VCS의 구조



중앙 집중식 버전 관리 시스템

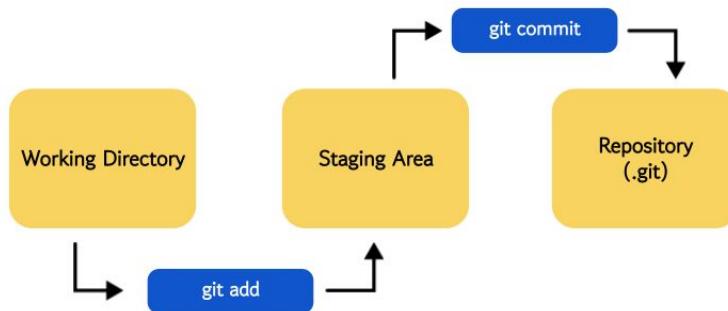




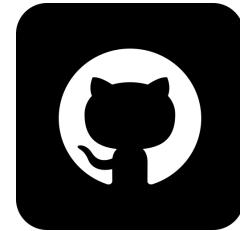
분산 버전 관리 시스템

Git의 구조 (Local)

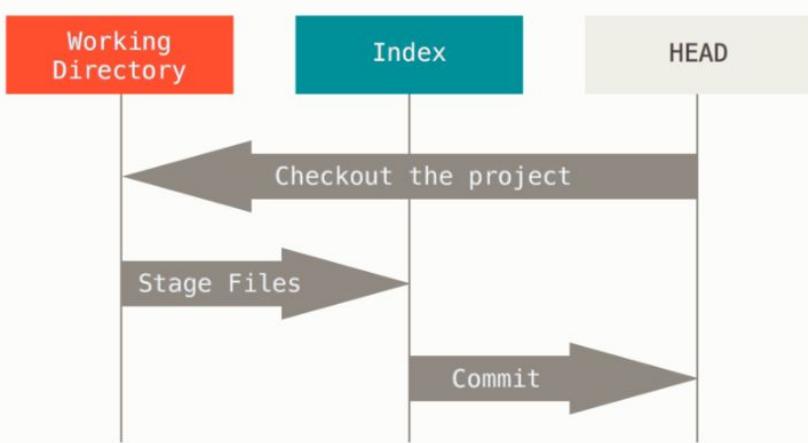
Local Computer
(Working Directory)



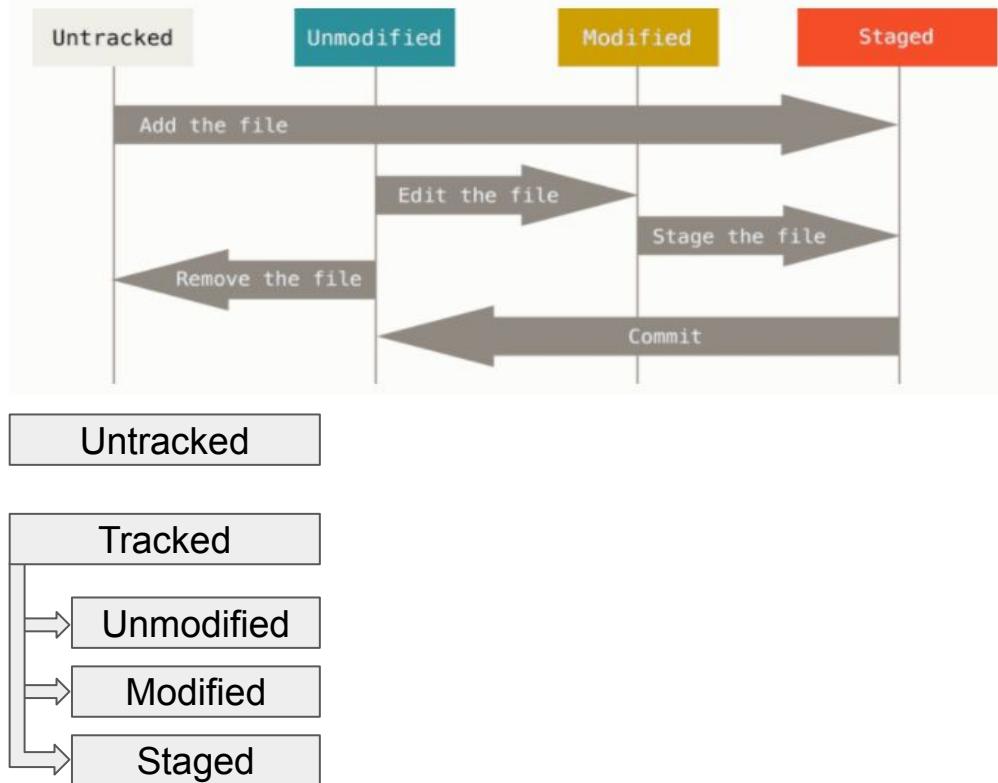
원격 저장소(GitHub)
Remote Repository

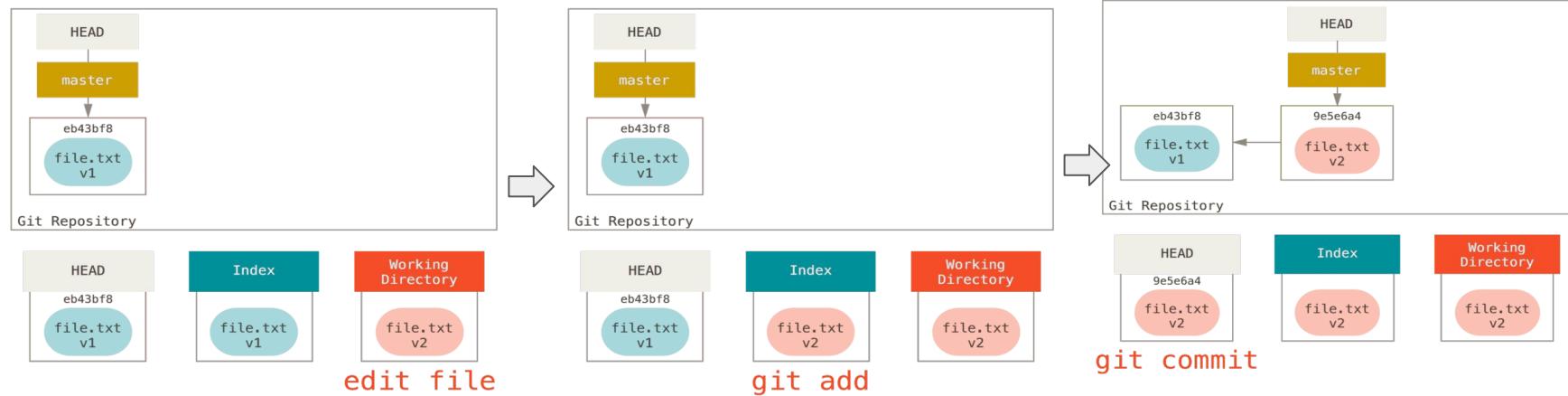
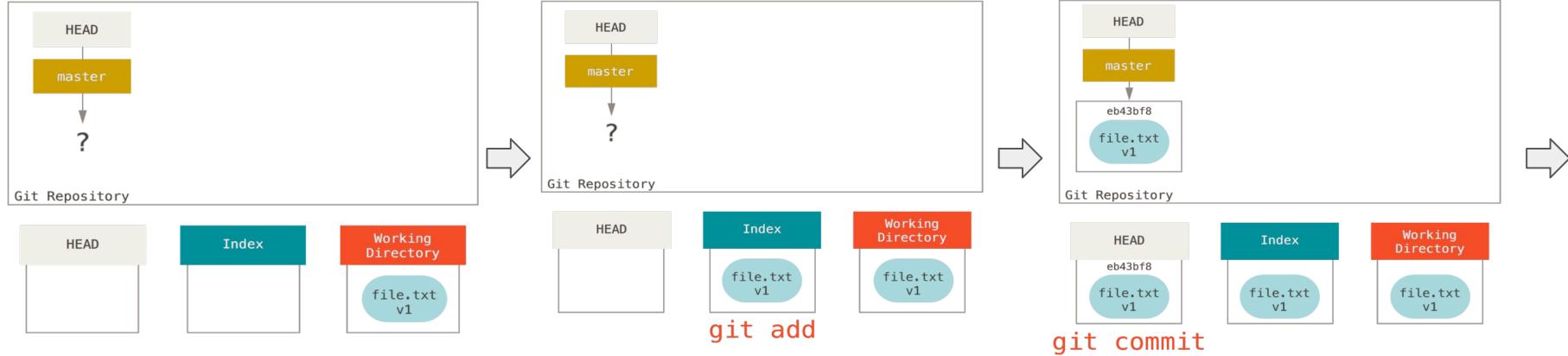


Git의 파일 공간, 파일 상태

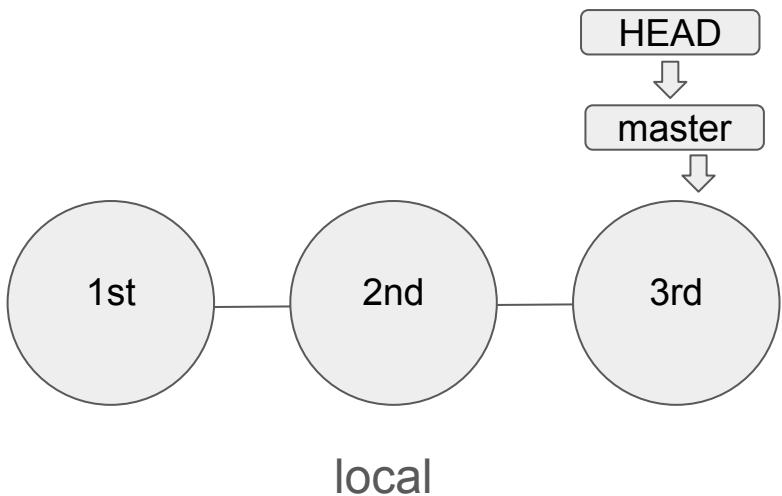


Working Directory 내부

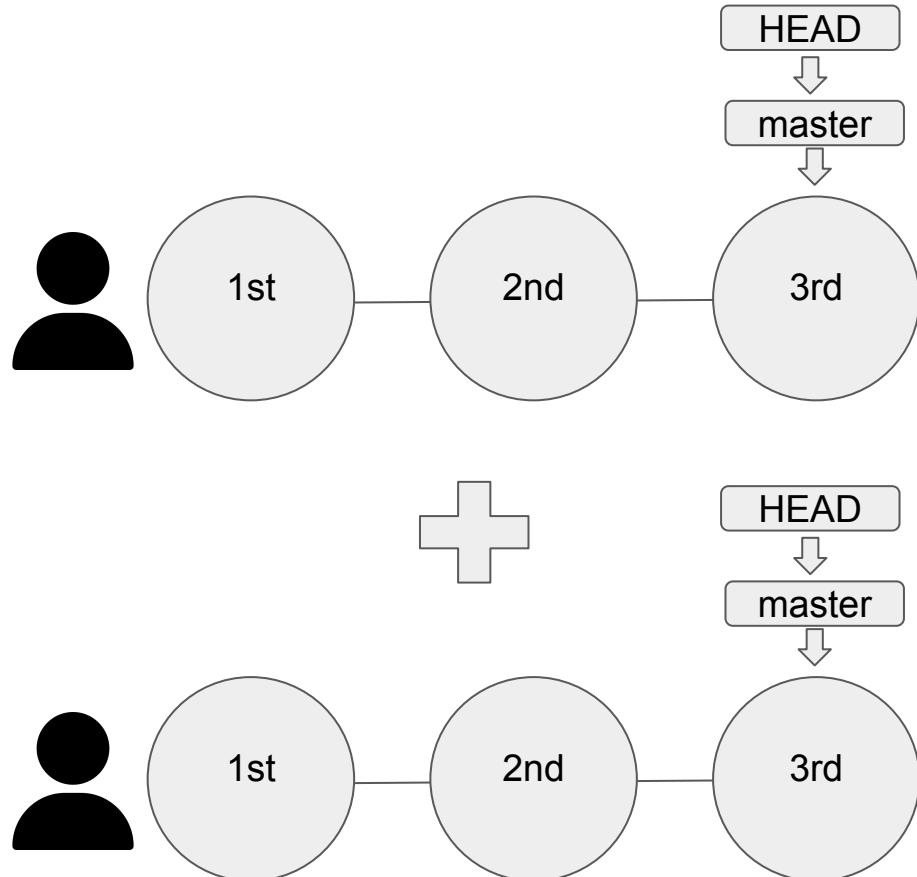




Git commit 정리

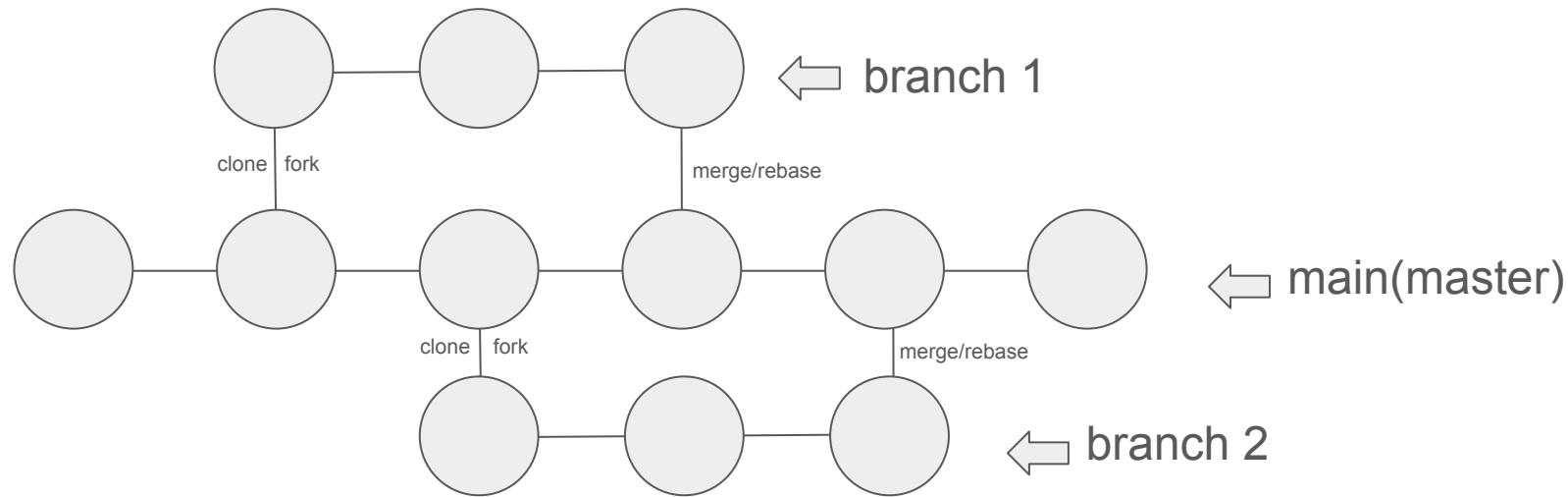


local



Git branch 개념

branch란 가지, 분기

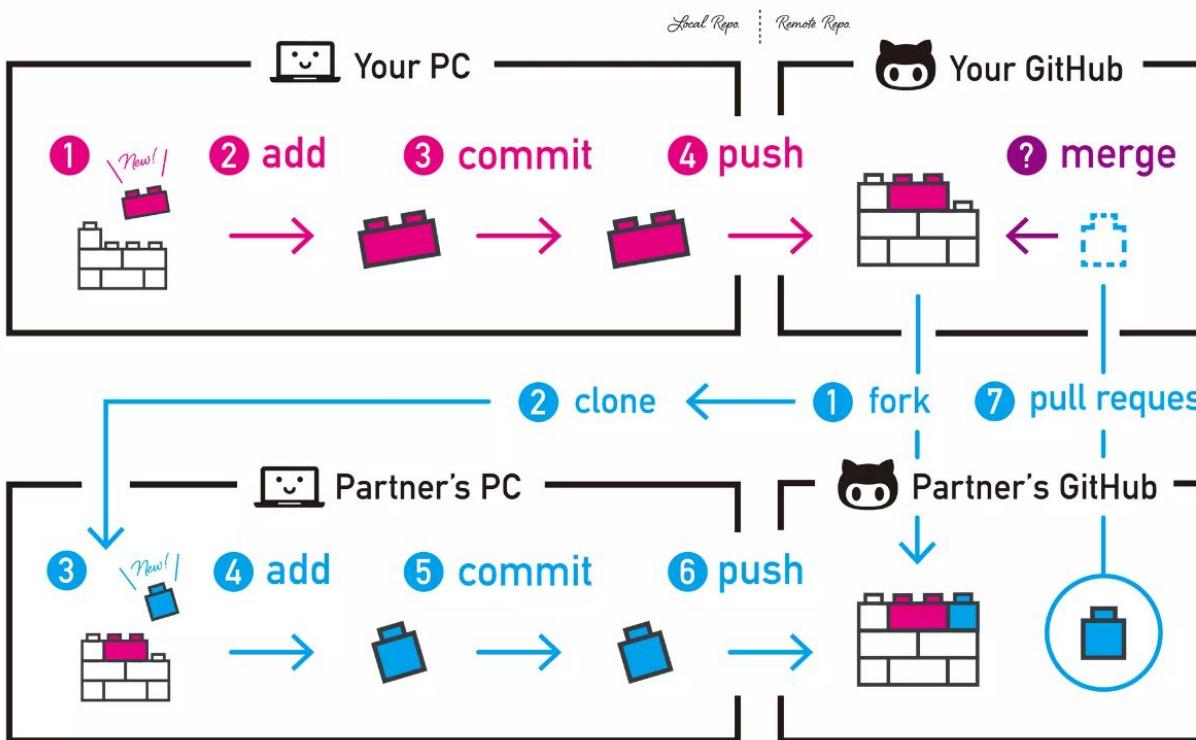


Git 의 구조 (Local + Remote)

Git / GitHub

How to "Pull Request"

designless.net





Search entire site...

Git is a free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency.

Git is **easy to learn** and has a **tiny footprint with lightning fast performance**. It outclasses SCM tools like Subversion, CVS, Perforce, and ClearCase with features like **cheap local branching**, convenient staging areas, and **multiple workflows**.



About

The advantages of Git compared to other source control systems.



Documentation

Command reference pages, Pro Git book content, videos and other material.



Downloads

GUI clients and binary releases for all major platforms.



Community

Get involved! Bug reporting, mailing list, chat, development and more.



Pro Git by Scott Chacon and Ben Straub is available to [read online for free](#). Dead tree versions are available on [Amazon.com](#).

Companies & Projects Using Git

Google Microsoft



LinkedIn Netflix



PostgreSQL



GNOME

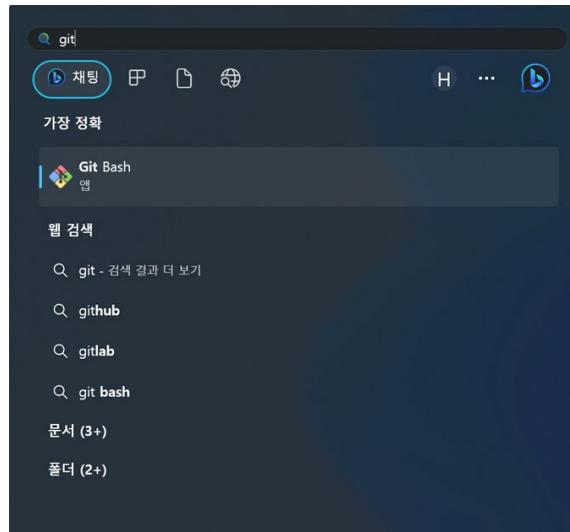
eclipse



</> About this site
Patches, suggestions, and comments are welcome.

Git is a member of Software Freedom Conservancy

<https://git-scm.com/>



```
MINGW64:/c/Users/huynj
huyn@DESKTOP-5RNKFNR MINGW64 ~
$ git --version
git version 2.43.0.windows.1

huyn@DESKTOP-5RNKFNR MINGW64 ~
$ |
```

git –version (대수 2개)

Sourcetree 설치



Registration

To use Sourcetree, log in with a Bitbucket or



Don't have a Bitbucket Cloud account? [Create one for free.](#)

건너뛰기 다음

건너뛰기

<https://www.sourcetreeapp.com/>

Pick tools to download and install

Install

Discovered and configured for pre-installed Git v2.43.0.windows.1
C:\Program Files\Git\cmd\git.exe

Mercurial

7.42 MB

고급 옵션

다음

체크 해제

VS Code 설치

Visual Studio Code Docs Updates Blog API Extensions FAQ Learn  Search Docs  Download Version 1.86 is now available! Read about the new features and fixes from January.

Download Visual Studio Code

Free and built on open source. Integrated Git, debugging and extensions.



Windows

Windows 10, 11

User Installer		
System Installer		
.zip		
CLI		

.deb

Debian, Ubuntu

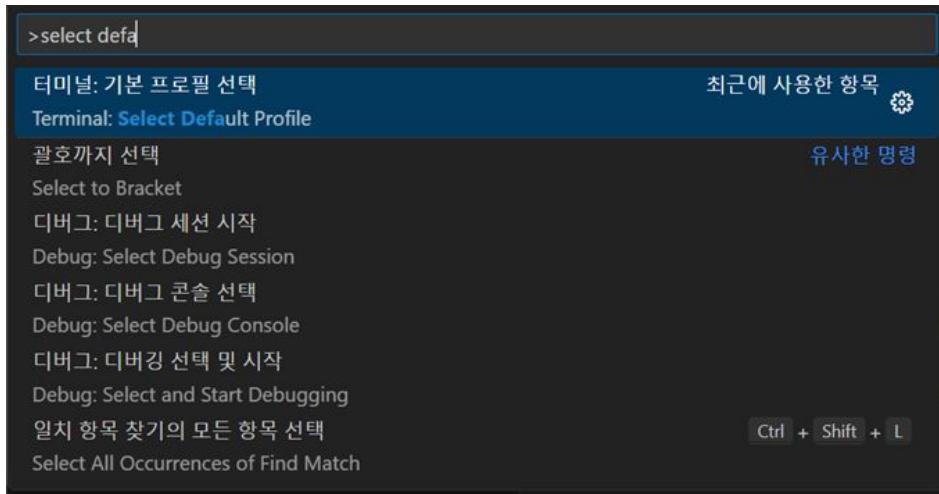
.rpm

Red Hat, Fedora, SUSE

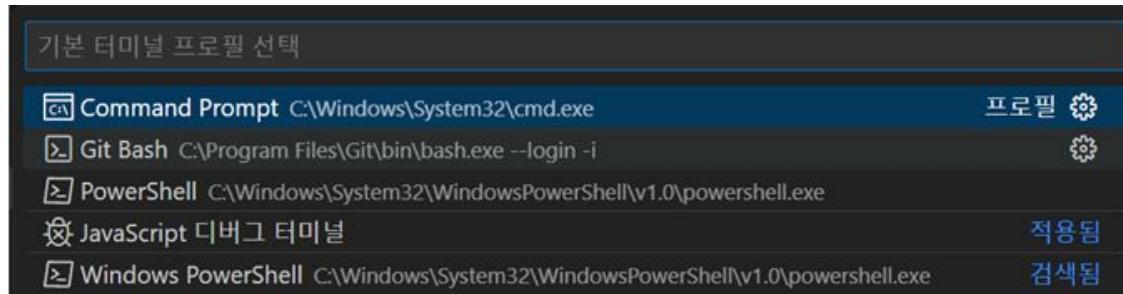
Mac

macOS 10.15+

VS Code 환경설정



f1 + select default profile



git bash

GitHub 가입

The image shows the GitHub sign-up process. On the left, a sidebar lists account details: email (britzhuyn@gmail.com), password (redacted), username (DogLoveTime), and email preferences (unchecked). A 'Continue' button is at the bottom. On the right, a configuration section asks for project tools, team size, and education status, with 'Just me' selected for both. A large blue 'Continue' button is at the bottom right.

Search or jump to... / Sign in Sign up

Welcome to GitHub!
Let's begin the adventure

Enter your email*

✓ britzhuyn@gmail.com

Create a password*

✓
.....

Enter a username*

✓ DogLoveTime

Email preferences

Receive occasional product updates and announcements.

Continue

This will help us guide you to the tools that are best suited for your projects.

How many team members will be working with you?

Just me 2-5 5-10
 10-20 20-50 50+

Are you a student or teacher?

N/A Student Teacher

Continue

GitHub gives students free access to the best developer tools so they can learn b

Free

- > Unlimited public/private repositories
- > 2,000 CI/CD minutes/month
Free for public repositories
- > 500MB of Packages storage
Free for public repositories
- > 120 core-hours of Codespaces compute
- > 15GB of Codespaces storage
- > Community support

Get additional student**GitHub Pro****Protect your branches**

Ensure that collaborators on your repository branches.

- > Draft pull requests
- > Pages and Wikis
- > 3,000 CI/CD minutes/month
Free for public repositories
- > 2GB of Packages storage
Free for public repositories
- > 180 core-hours of Codespaces compute
- > 20GB of Codespaces storage
- > Web-based support

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Learn to ship software like a pro. There's no substitute for hands-on experience. But for most students, real world tools can be cost-prohibitive. That's why we created the GitHub Student Developer Pack with some of our partners and friends.

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Individuals

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- ✓ [GitHub Pro](#) while you are a student
- ✓ [Valuable GitHub Student Developer Pack](#) partner offers
- ✓ [GitHub Campus Expert training](#) for qualified applicants

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- ✓ [GitHub Team](#) for courses, coding clubs, and nonprofit research
- ✓ [GitHub Classroom](#) for managing assignments

[Get student benefits](#)

[Get teacher benefits](#)

Schools

GitHub Campus Program

Teach with industry-standard tools,

across all your departments and students, for free.

- ✓ [GitHub Enterprise](#) for your GitHub organizations
- ✓ [GitHub Classroom](#) for managing assignments

Standard University
25%

GitHub Campus Program not for you?
We offer GitHub's products for schools and universities

Get your GitHub benefits

Learn and teach using real-world developer tools

Select your academic status *

 Teacher  Student

Benefits for Students



To qualify for student benefits, you must:

- Have a GitHub account.
- Be at least 13 years old.
- Be currently enrolled in a degree or diploma granting course of study from a recognized educational institution.
- Be able to provide documentation from your school which demonstrates your current student status.

Before you begin:

- Check that you are using a [supported browser](#), and that location services are not blocked by your browser or platform.
- Complete your GitHub account [billing information](#) with your full legal name as it appears on your academic affiliation documentation. (You do not have to add

You've already submitted
6 requests



Hi, babyhuynwoo! You were last verified as a student on Jan 7, 2024. It is not necessary for you to reverify at this time. There may be a wait period between verification and access to academic benefits.

What e-mail address do you use for school? *

Note: Selecting a school-issued email address gives you the best chance of a speedy review.

<input type="radio"/> [REDACTED]	<input checked="" type="radio"/> [REDACTED]	[REDACTED]
+ Add an email address		

What is the name of your school? *

Note: If your school is not listed, then enter the full school name and continue. You will be asked to provide further information about your school on the next page. **A minimum of two characters is required to find your school.**



We chose this school based on your email. If this isn't your school, please use a different email.

When you click "Continue" you will be prompted to share your location with us. Providing your current location helps us verify your affiliation with your chosen school.

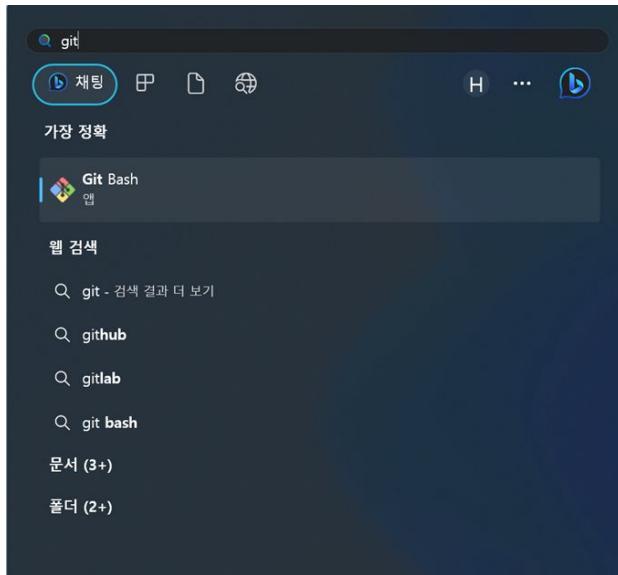
[Continue](#)

<https://ttodday.tistory.com/36>

Git !(2)

20203312 김현우

Git 설정



```
MINGW64:/c/Users/huynj

huyn@DESKTOP-5RNKFNR MINGW64 ~
$ git config --global user.name "khw"

huyn@DESKTOP-5RNKFNR MINGW64 ~
$ git config --global user.email "huynjoo01@naver.com"

huyn@DESKTOP-5RNKFNR MINGW64 ~
$ git config --global user.name
khw

huyn@DESKTOP-5RNKFNR MINGW64 ~
$ git config --global user.email
huynjoo01@naver.com
```

커밋: b522825387a7ffaa767cb3906b8eea1d5b24ef61 [b522825]

상위 항목: ddaa95f109

작성자: khw <huynjoo01@naver.com>

날짜: 2024년 2월 19일 월요일 오후 6:22:43

커밋한 사람: khw

1st commit

커밋: 573a3e965df14d2c3f51d23171227c0f36338283 [573a3e9]

상위 항목: b522825387

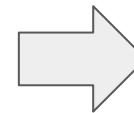
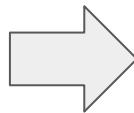
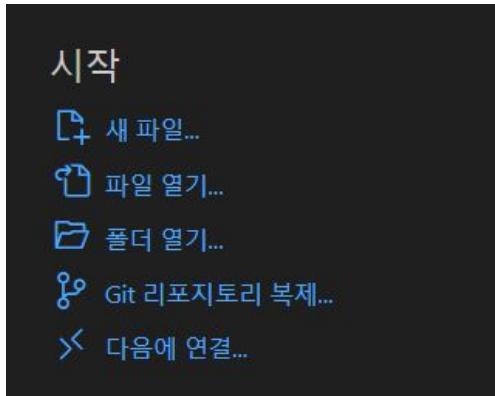
작성자: khw <huynjoo01@naver.com>

날짜: 2024년 2월 19일 월요일 오후 6:35:31

커밋한 사람: khw

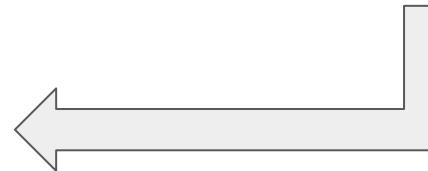
2nd commit

Git - CLI - 시작



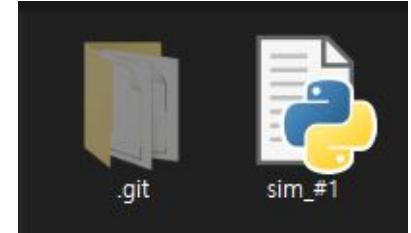
문제 출력 터미널 포트 디버그 콘솔

```
huyn@DESKTOP-5RNKFNR MINGW64 ~/OneDrive/바탕 화면/practice_git
$ git status
fatal: not a git repository (or any of the parent directories): .git
```



문제 출력 터미널 포트 디버그 콘솔

```
huyn@DESKTOP-5RNKFNR MINGW64 ~/OneDrive/바탕 화면/practice_git
$ git init
Initialized empty Git repository in C:/Users/huynj/OneDrive/바탕 화면/practice_git/.git/
```



Git - CLI - init

```
huyn@DESKTOP-5RNKFNR MINGW64 ~/OneDrive/바탕 화면/practice_git_CLI
$ git init
Initialized empty Git repository in C:/Users/huynj/OneDrive/바탕 화면/practice_git_CLI/.git/
```

이름	수정한 날짜	유형	크기
.git	2024-02-21 오후 9:29	파일 폴더	
ex_dir	2024-02-17 오후 8:19	파일 폴더	
ignore_dir	2024-02-17 오후 7:13	파일 폴더	
.gitignore	2024-02-17 오후 8:20	텍스트 문서	1KB
ig1	2024-02-17 오후 7:14	텍스트 문서	0KB
ig2	2024-02-17 오후 7:14	텍스트 문서	0KB
ignore	2024-02-17 오후 4:44	Python File	1KB
sim_#1	2024-02-17 오후 4:36	Python File	1KB

Git - CLI - 파일 제외

```
ignore.py > ...
1 """
2     this is my secret file
3     i want ignore this file
4 """
5     name = "김현우"
6     id = 20203312
7     major = "컴퓨터 공학과"
8     address = "서울특별시 동대문구 회기동 90-1번지 3층 301호"
9
10    print("my naem is",name)
11    print("my school id is ",id)
12    print("my major is ",major)
13    print("my address is ", address)
```

ignore.py



```
문제    출력    터미널    포트    디버그 콘솔

huyn@DESKTOP-5RNKFNR MINGW64 ~/OneDrive/바탕 화면/practice_git_CLI (master)
$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
      .gitignore
      sim_#1.py

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

Git - CLI - 파일 제외

DESCRIPTION

A `.gitignore` file specifies intentionally untracked files that Git should ignore. Files already tracked by Git are not affected; see the NOTES below for details.

Each line in a `.gitignore` file specifies a pattern. When deciding whether to ignore a path, Git normally checks `.gitignore` patterns from multiple sources, with the following order of precedence, from highest to lowest (within one level of precedence, the last matching pattern decides the outcome):

- Patterns read from the command line for those commands that support them.
- Patterns read from a `.gitignore` file in the same directory as the path, or in any parent directory (up to the top-level of the working tree), with patterns in the higher level files being overridden by those in lower level files down to the directory containing the file. These patterns match relative to the location of the `.gitignore` file. A project normally includes such `.gitignore` files in its repository, containing patterns for files generated as part of the project build.
- Patterns read from `$GIT_DIR/info/exclude`.
- Patterns read from the file specified by the configuration variable `core.excludesFile`.

Which file to place a pattern in depends on how the pattern is meant to be used.

- Patterns which should be version-controlled and distributed to other repositories via clone (i.e., files that all developers will want to ignore) should go into a `.gitignore` file.
- Patterns which are specific to a particular repository but which do not need to be shared with other related repositories (e.g., auxiliary files that live inside the repository but are specific to one user's workflow) should go into the `$GIT_DIR/info/exclude` file.
- Patterns which a user wants Git to ignore in all situations (e.g., backup or temporary files generated by the user's editor of choice) generally go into a file specified by `core.excludesFile` in the user's `~/.gitconfig`. Its default value is `$XDG_CONFIG_HOME/git/ignore`. If `$XDG_CONFIG_HOME` is either not set or empty, `$HOME/.config/git/ignore` is used instead.

The underlying Git plumbing tools, such as `git ls-files` and `git read-tree --read .gitignore`, patterns specified by command-line options, or from files specified by command-line options. Higher-level Git tools, such as `git status` and `git add`, use patterns from the sources specified above.

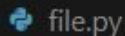
<https://git-scm.com/docs/gitignore>

◆ .gitignore

```
1 # 특정 파일 이름으로 ignore 하기 (디렉토리와 하위 디렉토리 모두 적용)
2 ignore.py
3 # 특정 디렉토리 이름으로 ignore 하기
4 ignore_dir/
5 # 특정 디렉토리 내부 특정 파일 ignore 하기
6 ex_dir/file.py
7 # 특정 확장자 파일들을 ignore 하기
8 *.txt
9 # 전체 확장자 파일 중 특정 파일만 ignore 해제 하기 (예외 지정하기)
10 !ig1.txt
```

▼ PRACTICE_GIT_CLI

▼ ex_dir



> ignore_dir

◆ .gitignore

≡ ig1.txt

≡ ig2.txt



≡ sim_#1.py

U

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Git - CLI - add

문제 출력 포트 터미널

스테이지에 올라간 파일

.gitignore
ig1.txt
sim_#1.py

```
huyn@DESKTOP-5RNKFNR MINGW64 ~/OneDrive/바탕 화면/practice_git_CLI (master)
$ git add ig1.txt
```

문제 출력 포트 터미널 디버그 콘솔

```
huyn@DESKTOP-5RNKFNR MINGW64 ~/OneDrive/바탕 화면/practice_git_CLI (master)
$ git status
On branch master
No commits yet

Changes to be committed:
(use "git rm --cached <file>..." to unstage)
  new file:  ig1.txt

Untracked files:
(use "git add <file>..." to include in what will be committed)
  .gitignore
  sim_#1.py
```

git add 'file_name'

git add . -> 숨김 파일 포함 (일반적)

git add * -> 숨김 파일 제외

```
huyn@DESKTOP-5RNKFNR MINGW64 ~/OneDrive/바탕 화면/practice_git_CLI (master)
$ git add .
```

```
huyn@DESKTOP-5RNKFNR MINGW64 ~/OneDrive/바탕 화면/practice_git_CLI (master)
$ git status
On branch master
```

No commits yet

```
Changes to be committed:
(use "git rm --cached <file>..." to unstage)
  new file:  .gitignore
  new file:  ig1.txt
  new file:  sim_#1.py
```

스테이지에 올라간 파일

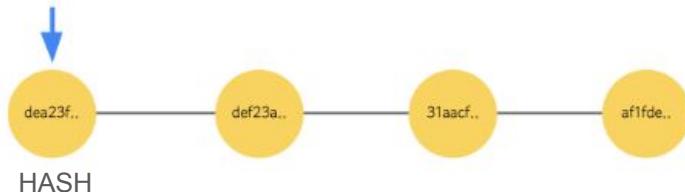
.gitignore
ig1.txt
sim_#1.py

Git - CLI - commit

커밋(commit)?

git repository에 잘 포장된 꾸러미

git repository에 체크포인트 중 하나



꾸러미는 여러 개 만들 수 있지만, 이미지처럼 굽비 옆이듯 연결되어 있다.

HEAD



master



첫번째
커밋

3b9fadd ...

입력 →

\$ git commit

```
첫번째 커밋
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
#
# On branch master
#
# Initial commit
#
# Changes to be committed:
#   new file:   .gitignore
#   new file:   ig2.txt
#   new file:   sim_#1.py
#
```



\$ git commit

```
[master (root-commit) 3b9fadd] 첫번째 커밋
 3 files changed, 20 insertions(+)
 create mode 100644 .gitignore
 create mode 100644 ig2.txt
 create mode 100644 sim_#1.py
```



master

첫번째 커밋

HASH

\$ git log

```
commit 3b9faddb8a31ccc0df59066fe6c74f25d8bdee0c (HEAD -> master)
Author: khw <huynjoo01@naver.com>
Date:   Wed Feb 28 20:45:32 2024 +0900
```

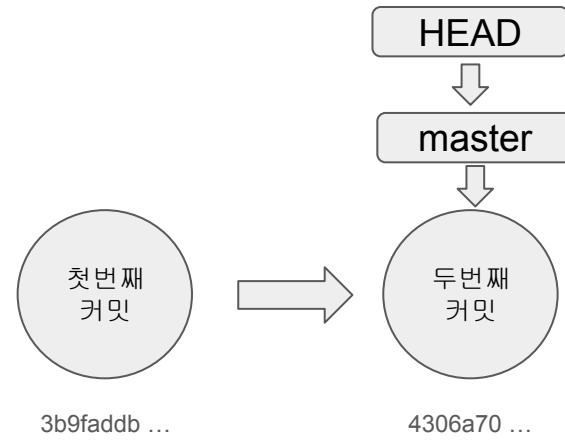
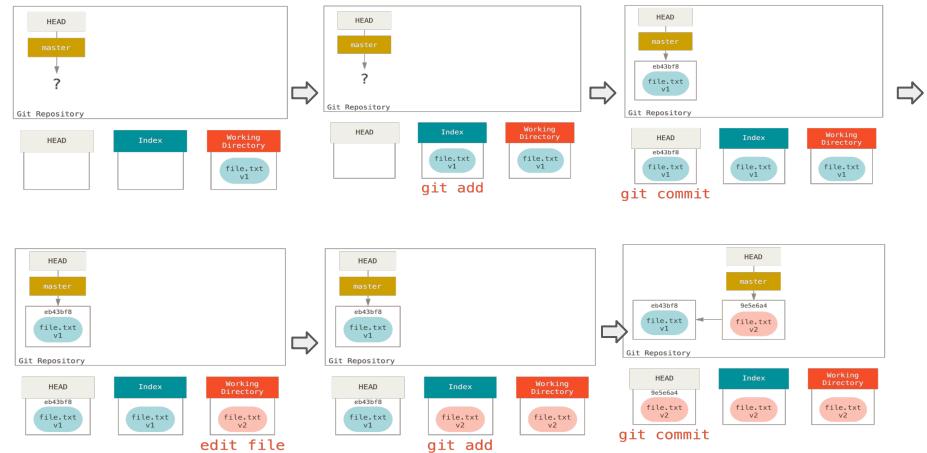
첫번째 커밋

Git - CLI - commit

```
깃을 실습해봅시다  
첫번째 커밋  
...  
print("first commit")
```

```
깃을 실습해봅시다  
두번째 커밋  
...  
print("second commit")
```

```
$ git log  
commit 4306a708c6dde30faff666c12f6cd487bcb1a9bc (HEAD -> master)  
Author: khw <huynjoo01@naver.com>  
Date:   Wed Feb 28 20:48:42 2024 +0900  
  
두번째 커밋  
  
commit 3b9faddb8a31ccc0df59066fe6c74f25d8bdee0c  
Author: khw <huynjoo01@naver.com>  
Date:   Wed Feb 28 20:45:32 2024 +0900  
  
첫번째 커밋
```



git 버전 되돌리기(commit 취소)

1. revert

```
1st.py
1
2
3 첫번째 커밋
4
5
6
7 print("first commit")
```

```
2nd.py
1
2
3 두번째 커밋
4
5
6
7 print("second commit")
```

```
3rd.py
1
2
3 세번째 커밋
4
5
6
7 print("third commit")
```

```
4th.py
1
2
3 네번째 커밋
4
5
6
7 print("fourth commit")
```

```
$ git commit -am "첫번째 커밋"
1st.py
2nd.py
```

```
$ git commit -am "두번째 커밋"
```

```
1st.py
2nd.py
3rd.py
```

```
$ git commit -am "세번째 커밋"
```

```
1st.py
2nd.py
3rd.py
4th.py
```

```
$ git commit -am "네번째 커밋"
```

git 버전 되돌리기(commit 취소) 1. revert

```
$ git log  
commit 9598f306b5591b32a115bcd5976178877cffb3ff (HEAD -> master)  
Author: khw <huynjoo01@naver.com>  
Date:   Wed Feb 28 21:41:31 2024 +0900
```

네번째 커밋

```
commit 5672487d572e45b073507f2340e34134b3eb9622  
Author: khw <huynjoo01@naver.com>  
Date:   Wed Feb 28 21:40:58 2024 +0900
```

세번째 커밋

```
commit 3fa043098b2accbef0bd729f702ac7f89901c18c  
Author: khw <huynjoo01@naver.com>  
Date:   Wed Feb 28 21:40:43 2024 +0900
```

두번째 커밋

```
commit 4544b0689f197b8a2b422405294a5e7d2b1aef3e  
Author: khw <huynjoo01@naver.com>  
Date:   Wed Feb 28 21:40:03 2024 +0900
```

첫번째 커밋

1st.py
2nd.py
3rd.py
4th.py

master 네번째 커밋
세번째 커밋
두번째 커밋
첫번째 커밋

```
$ git revert HEAD^[]
```

git revert HEAD^[]

Revert "세번째 커밋"

```
This reverts commit 5672487d572e45b073507f2340e34134b3eb9622.
```

```
# Please enter the commit message for your changes. Lines starting  
# with '#' will be ignored, and an empty message aborts the commit.  
#  
# On branch master  
# Changes to be committed:  
#       deleted:    3rd.py
```

\$ git revert HEAD

```
[master 2940c18] Revert "세번째 커밋"  
1 file changed, 7 deletions(-)  
delete mode 100644 3rd.py
```

1st.py
2nd.py
4th.py

master Revert "세번째 커밋"
네번째 커밋
세번째 커밋
두번째 커밋
첫번째 커밋

```
$ git revert 3fa043098b2accbef0bd729f702ac7f89901c18c
```

git revert [hash]

Revert "두번째 커밋"

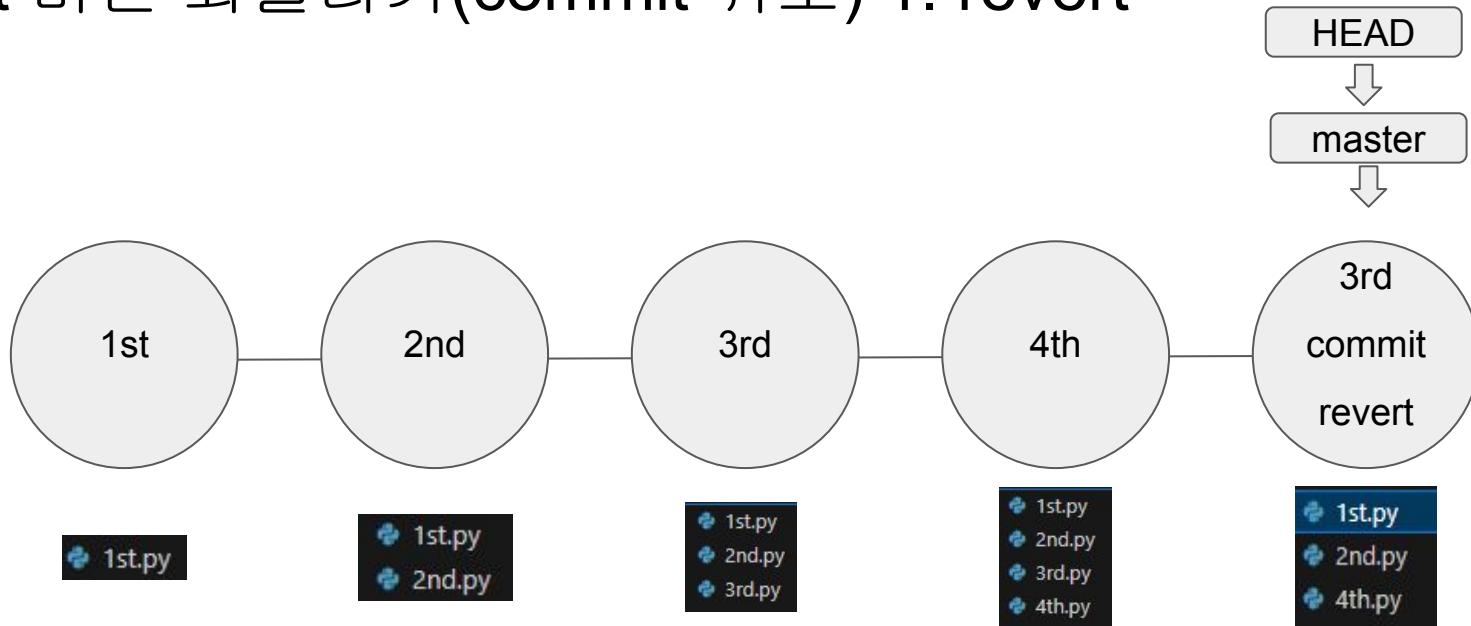
```
This reverts commit 3fa043098b2accbef0bd729f702ac7f89901c18c.
```

```
# Please enter the commit message for your changes. Lines starting  
# with '#' will be ignored, and an empty message aborts the commit.  
#  
# On branch master  
# Changes to be committed:  
#       deleted:    2nd.py
```

1st.py
4th.py

master Revert "두번째 커밋"
Revert "세번째 커밋"
세번째 커밋
두번째 커밋
첫번째 커밋

git 버전 되돌리기(commit 취소) 1. revert



git revert HEAD^

git 버전 되돌리기(commit 취소)

```
$ git log
commit 9598f306b5591b32a115bcd5976178877cffb3ff (HEAD -> master)
Author: khw <huynjoo01@naver.com>
Date:   Wed Feb 28 21:41:31 2024 +0900

    네번째 커밋

commit 5672487d572e45b073507f2340e34134b3eb9622
Author: khw <huynjoo01@naver.com>
Date:   Wed Feb 28 21:40:58 2024 +0900

    세번째 커밋

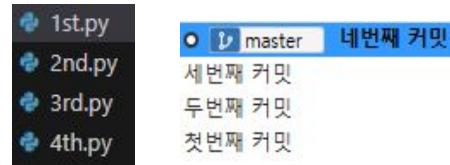
commit 3fa043098b2accbef0bd729f702ac7f89901c18c
Author: khw <huynjoo01@naver.com>
Date:   Wed Feb 28 21:40:43 2024 +0900

    두번째 커밋

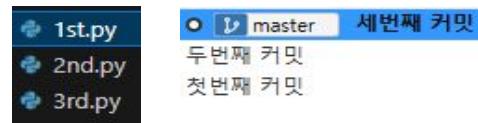
commit 4544b0689f197b8a2b422405294a5e7d2b1aef3e
Author: khw <huynjoo01@naver.com>
Date:   Wed Feb 28 21:40:03 2024 +0900

    첫번째 커밋
```

2. reset



```
$ git reset --hard HEAD^
HEAD is now at 5672487 세번째 커밋
```



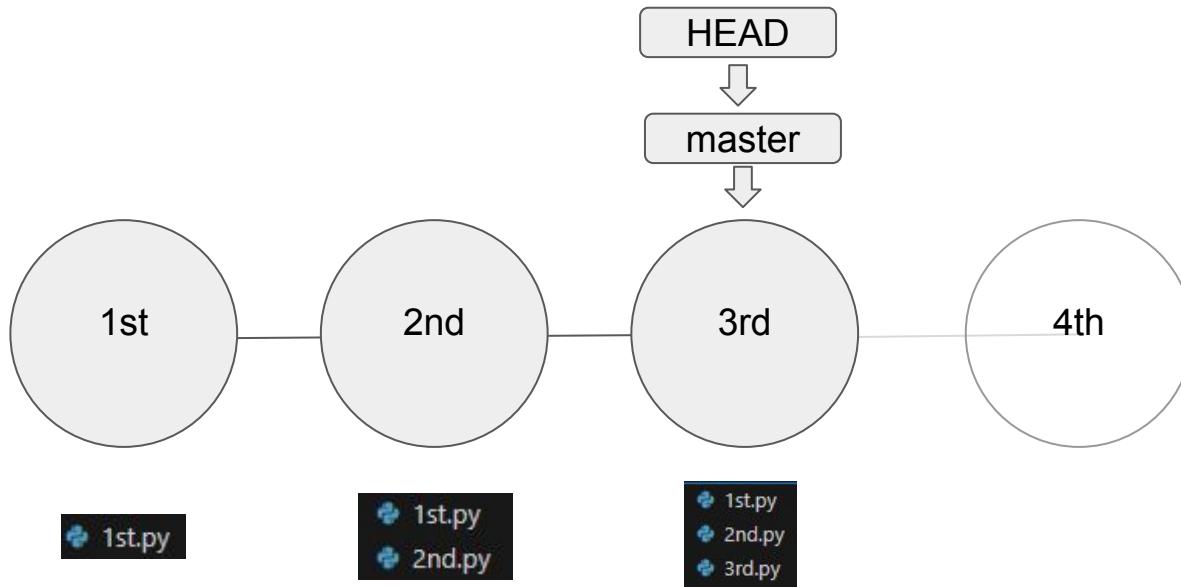
```
$ git reset --hard 3fa043098b2acc
HEAD is now at 3fa0430 두번째 커밋
```



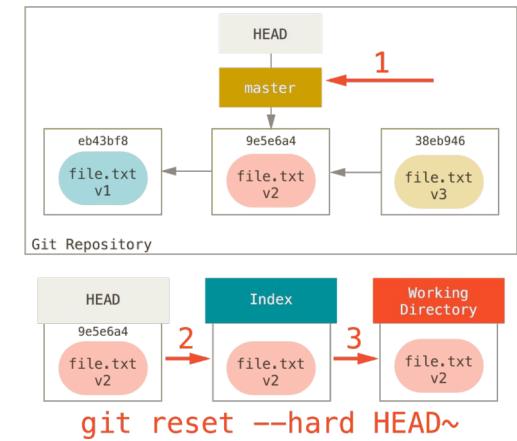
```
$ git reset --hard 9598f306b5591b32a115bcd5976178877cffb3ff
HEAD is now at 9598f30 네번째 커밋
```



git 버전 되돌리기(commit 취소) 2. reset



git reset HEAD^



git reset --hard HEAD~

git 버전 되돌리기(commit 취소)

1. reset

```
1st.py  
2nd.py  
3rd.py  
4th.py
```

master 네번째 커밋
세번째 커밋
두번째 커밋
첫번째 커밋

```
1st.py  
2nd.py  
3rd.py
```

master 세번째 커밋
두번째 커밋
첫번째 커밋

```
1st.py  
2nd.py
```

master 두번째 커밋
첫번째 커밋

```
1st.py  
2nd.py  
3rd.py  
4th.py
```

master 네번째 커밋
세번째 커밋
두번째 커밋
첫번째 커밋

2. revert

```
1st.py  
2nd.py  
3rd.py  
4th.py
```

master 네번째 커밋
세번째 커밋
두번째 커밋
첫번째 커밋

```
1st.py  
2nd.py  
4th.py
```

master Revert "세번째 커밋"
네번째 커밋
세번째 커밋
두번째 커밋
첫번째 커밋

```
1st.py  
4th.py
```

master Revert "두번째 커밋"
Revert "세번째 커밋"
네번째 커밋
세번째 커밋
두번째 커밋
첫번째 커밋

reset은 HEAD를 조정 and
(커밋 히스토리를 지움)

과거의 특정 커밋으로 돌아감

revert는 새로운 커밋을 생성
(커밋 히스토리 유지)

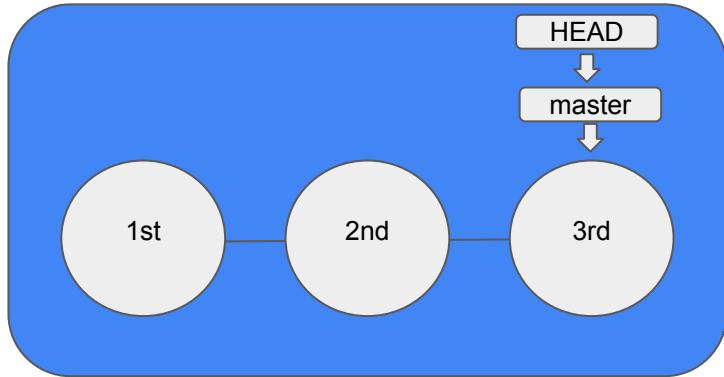
현재에 있으면서 과거의 커밋을 삭제

따라서, 혼자 작업할 때에는 reset

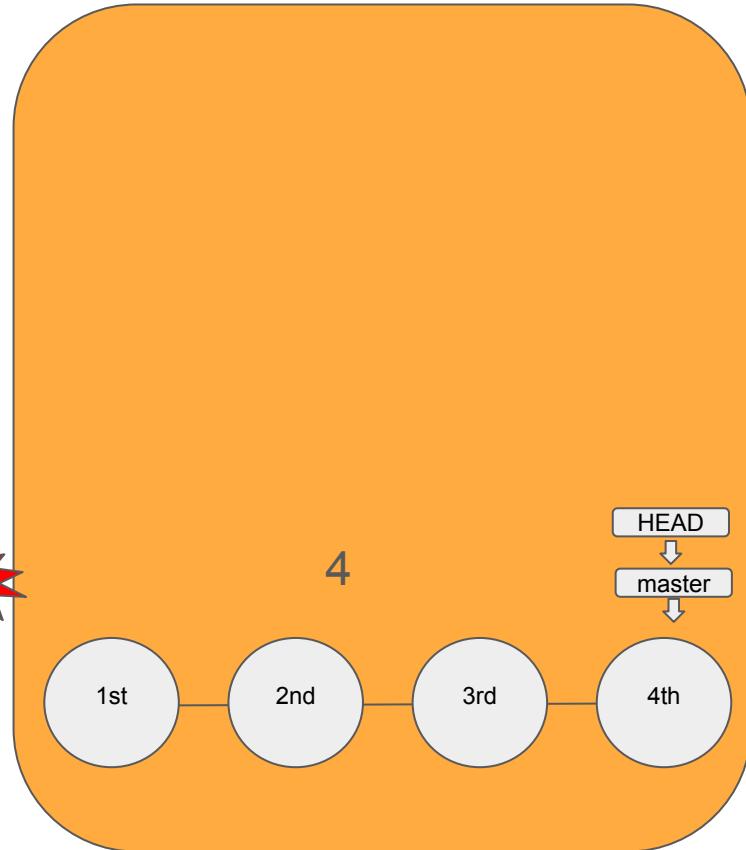
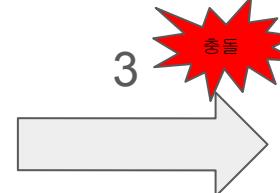
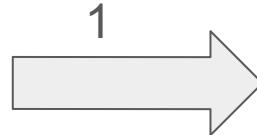
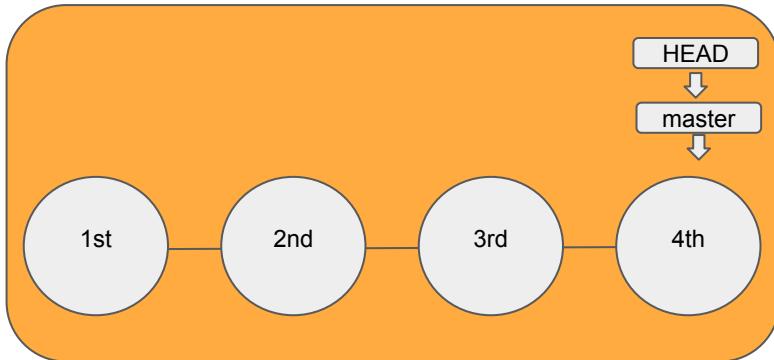
파트너와 같이 작업할 때는 revert

로컬 저장소

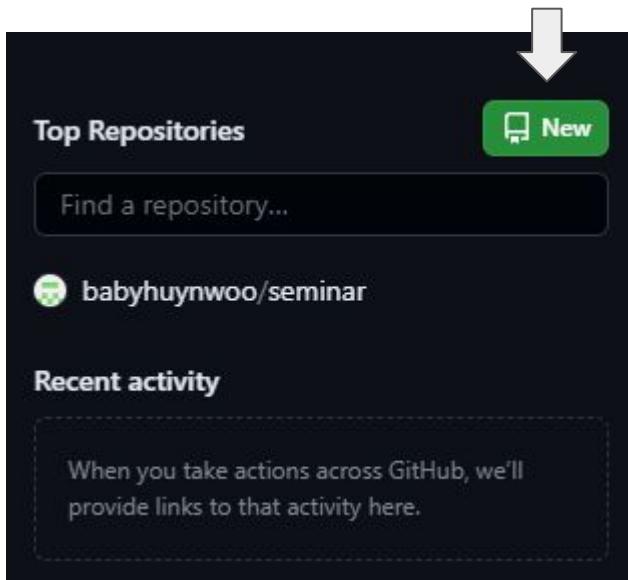
A



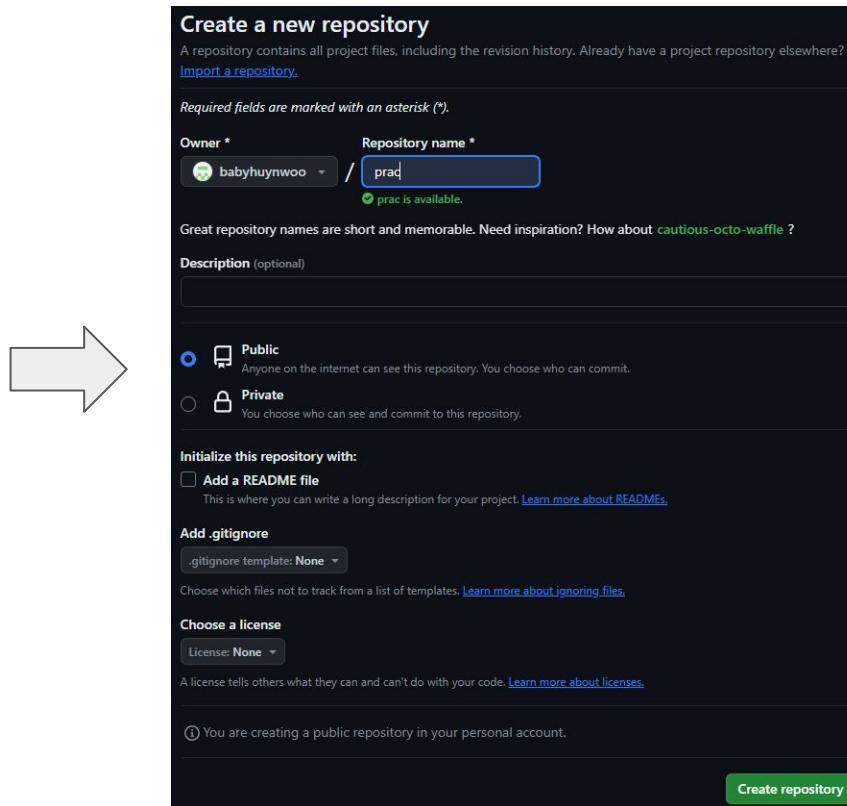
B



GitHub 연동



The screenshot shows the GitHub homepage. At the top, there's a search bar with the placeholder "Find a repository...". Below it, a section titled "Top Repositories" lists a single repository: "babyhuynwoo/seminar". Underneath, a section titled "Recent activity" contains a message: "When you take actions across GitHub, we'll provide links to that activity here." A large white arrow points downwards from the "New" button in the top right corner.



The screenshot shows the "Create a new repository" page. The "Repository name" field is set to "praq", with a note below it stating "prac is available.". The "Owner" dropdown is set to "babyhuynwoo". The "Public" radio button is selected. In the "Initialize this repository with:" section, the "Add a README file" checkbox is checked. The "Choose a license" section shows "License: None". A note at the bottom states "You are creating a public repository in your personal account." A large white arrow points from the "New" button on the left towards this form.

Create a new repository
A repository contains all project files, including the revision history. Already have a project repository elsewhere?
[Import a repository](#)

Required fields are marked with an asterisk (*).

Owner * Repository name *
 /
prac is available.

Great repository names are short and memorable. Need inspiration? How about [cautious-octo-waffle](#) ?

Description (optional)

 Public
Anyone on the internet can see this repository. You choose who can commit.
  Private
You choose who can see and commit to this repository.

Initialize this repository with:
 Add a README file
This is where you can write a long description for your project. [Learn more about READMEs](#).

Add .gitignore
.gitignore template:

Choose which files not to track from a list of templates. [Learn more about ignoring files](#).

Choose a license
License:

A license tells others what they can and can't do with your code. [Learn more about licenses](#).

ⓘ You are creating a public repository in your personal account.

Create repository

GitHub 연동

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

 Set up in Desktop or  HTTPS  SSH <https://github.com/babyhuynwoo/prac.git> 

Get started by [creating a new file](#) or [uploading an existing file](#). We recommend every repository include a [README](#), [LICENSE](#), and [.gitignore](#).

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

```
echo "# prac" >> README.md  
git init  
git add README.md  
git commit -m "first commit"  
git branch -M main  
git remote add origin https://github.com/babyhuynwoo/prac.git  
git push -u origin main
```

...or push an existing repository from the command line

```
git remote add origin https://github.com/babyhuynwoo/prac.git  
git branch -M main  
git push -u origin main
```

...or import code from another repository

You can initialize this repository with code from a Subversion, Mercurial, or TFS project.

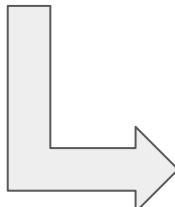
[Import code](#)

GitHub remote, branch, push

```
huyn@DESKTOP-5RNKFNR MINGW64 ~/OneDrive/바탕 화면/practive_git2 (master)
$ git remote add origin https://github.com/babyhuynwoo/prac.git
```

```
huyn@DESKTOP-5RNKFNR MINGW64 ~/OneDrive/바탕 화면/practive_git2 (master)
$ git branch -M main
```

```
huyn@DESKTOP-5RNKFNR MINGW64 ~/OneDrive/바탕 화면/practive_git2 (main)
$ git push -u origin main
Enumerating objects: 12, done.
Counting objects: 100% (12/12), done.
Delta compression using up to 12 threads
Compressing objects: 100% (9/9), done.
Writing objects: 100% (12/12), 1.08 KiB | 552.00 KiB/s, done.
Total 12 (delta 2), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (2/2), done.
To https://github.com/babyhuynwoo/prac.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.
```



git remote add origin [github 주소]

git remote add [원격 저장소 이름] [원격 저장소 주소]

-> 원격 저장소의 이름을 지정

git branch -M [이름] : 메인 branch 이름을 이름으로 변경

git push (원격 저장소 명) (브랜치 명)

-> 원격 저장소에 push, 원격 저장소에 올리겠다는 뜻

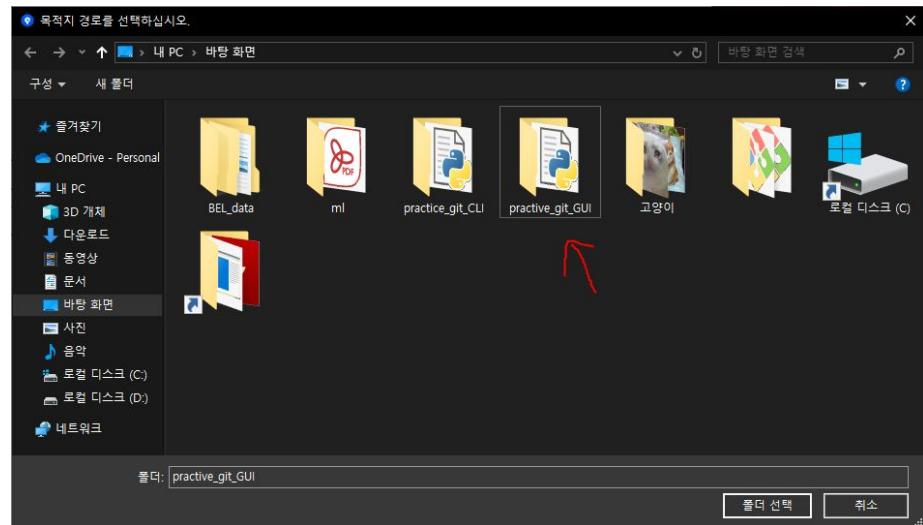
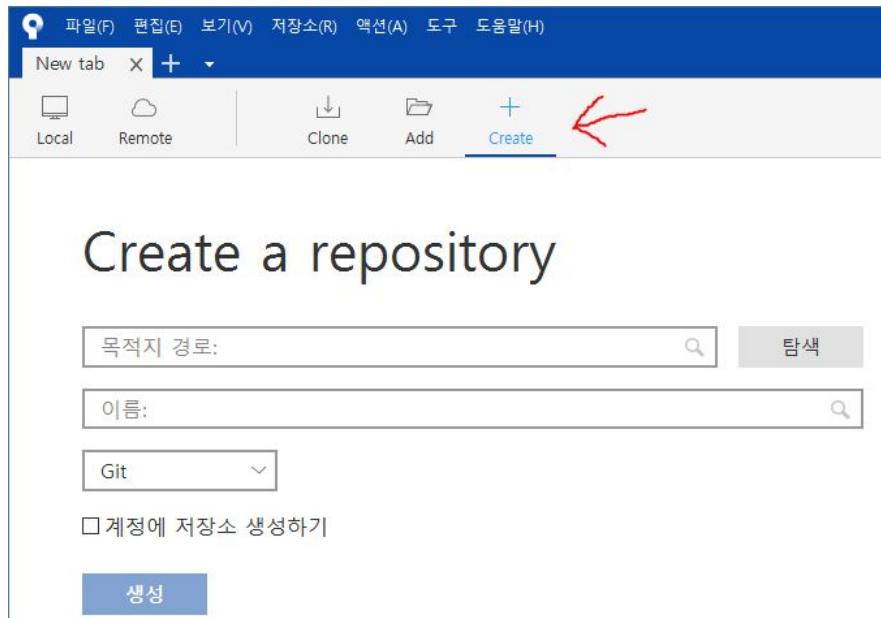
The screenshot shows a GitHub repository interface. At the top, there's a 'Commits' section with a dropdown for 'main' and filters for 'All users' and 'All time'. Below it is a list of commits:

Commit Message	Author	Date
네번째 커밋	babyhuynwoo	committed 8 hours ago
세번째 커밋	babyhuynwoo	committed 8 hours ago
두번째 커밋	babyhuynwoo	committed 8 hours ago
첫번째 커밋	babyhuynwoo	committed 8 hours ago

The screenshot shows a GitHub repository interface with a sidebar showing 'main' branch, 1 Branch, 0 Tags, and a search bar. The main area displays a list of files with their commit history:

File	Commit Message	Date
1st.py	첫번째 커밋	8 hours ago
2nd.py	두번째 커밋	8 hours ago
3rd.py	세번째 커밋	8 hours ago
4th.py	네번째 커밋	8 hours ago

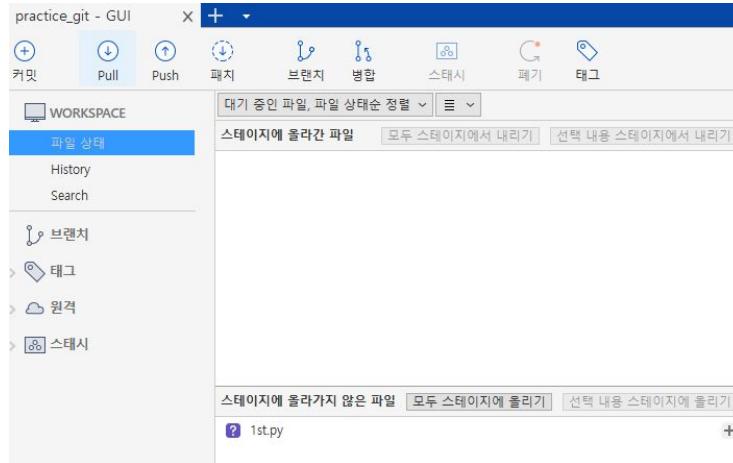
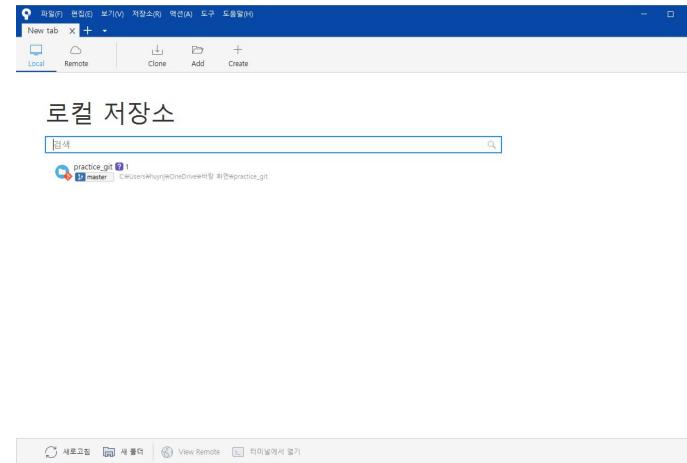
Git 시작 - GUI



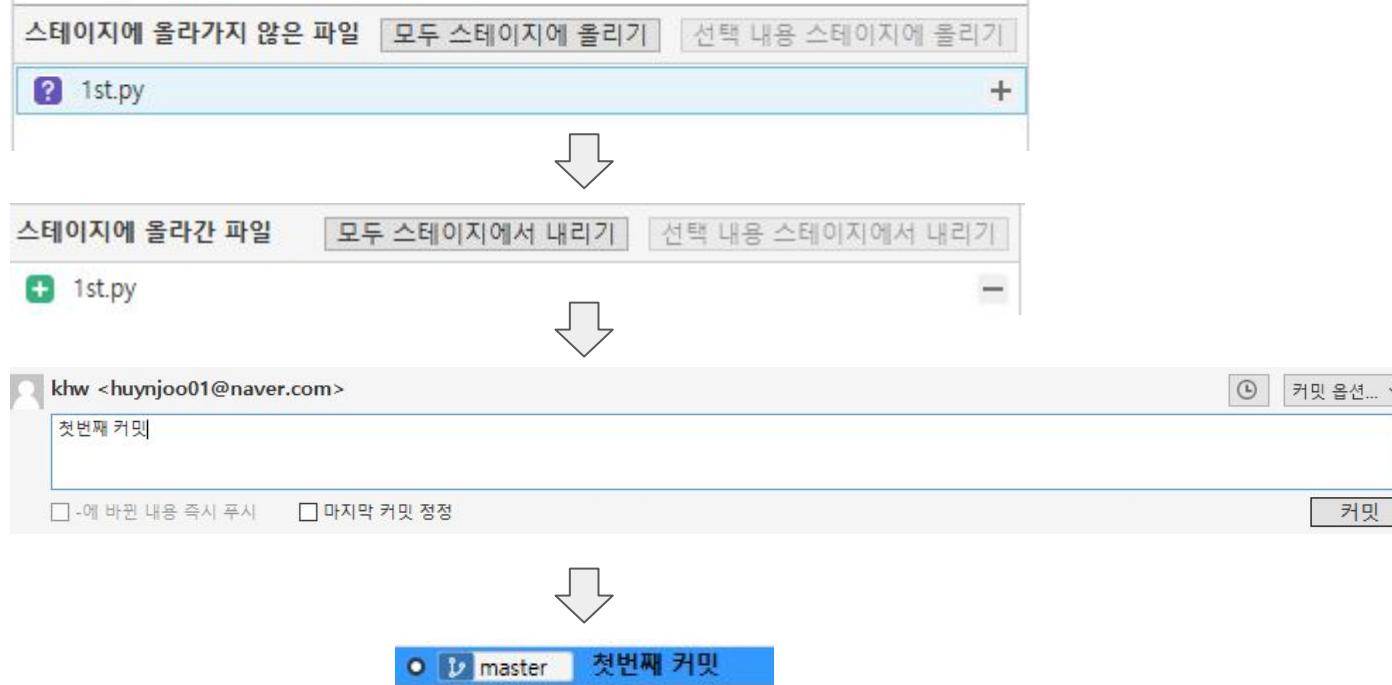
Git 시작 - GUI



→
드래그

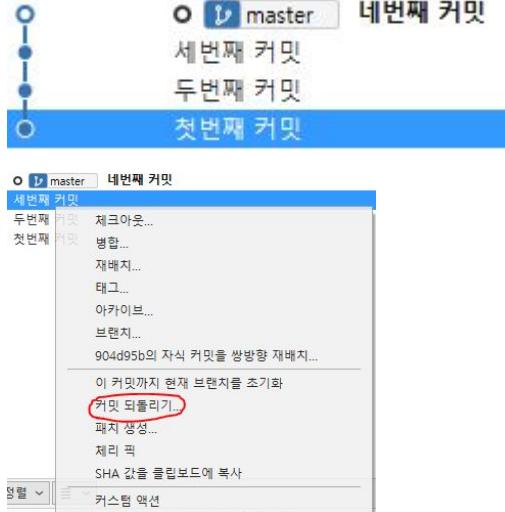


Git 시작 - GUI - add - commit

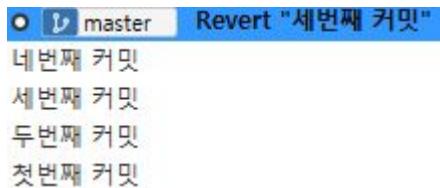
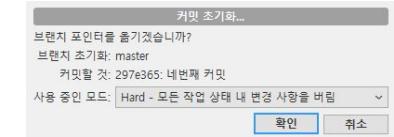
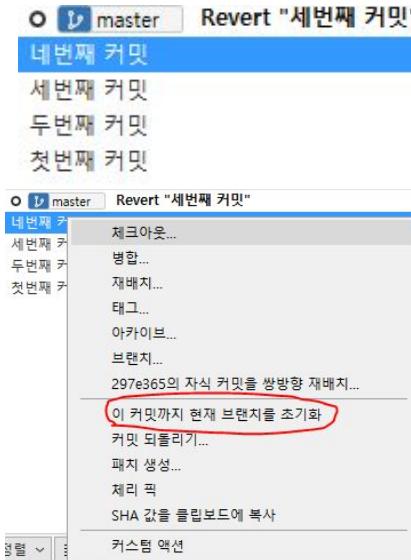


Git 시작 - GUI - revert - reset

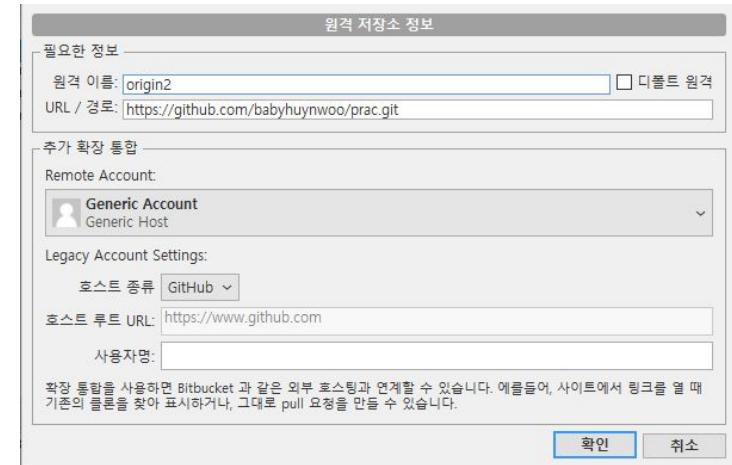
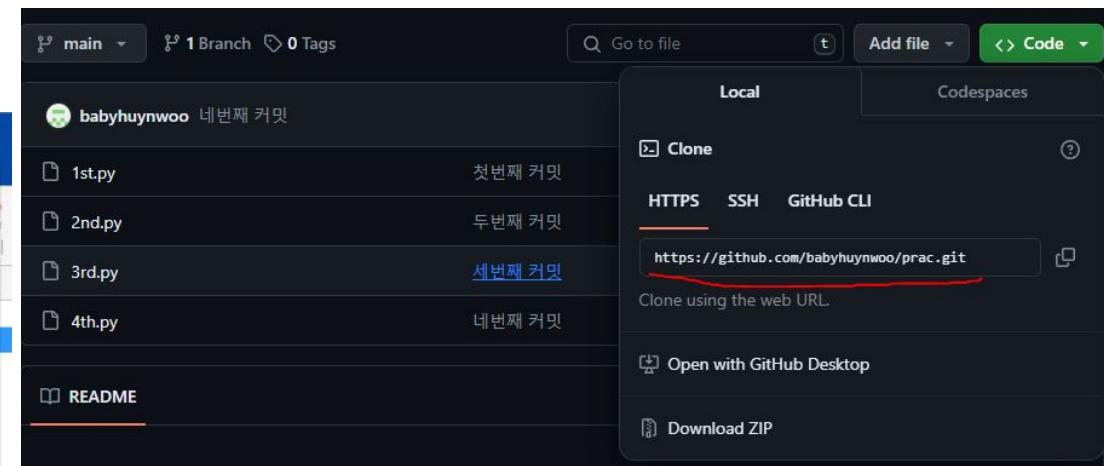
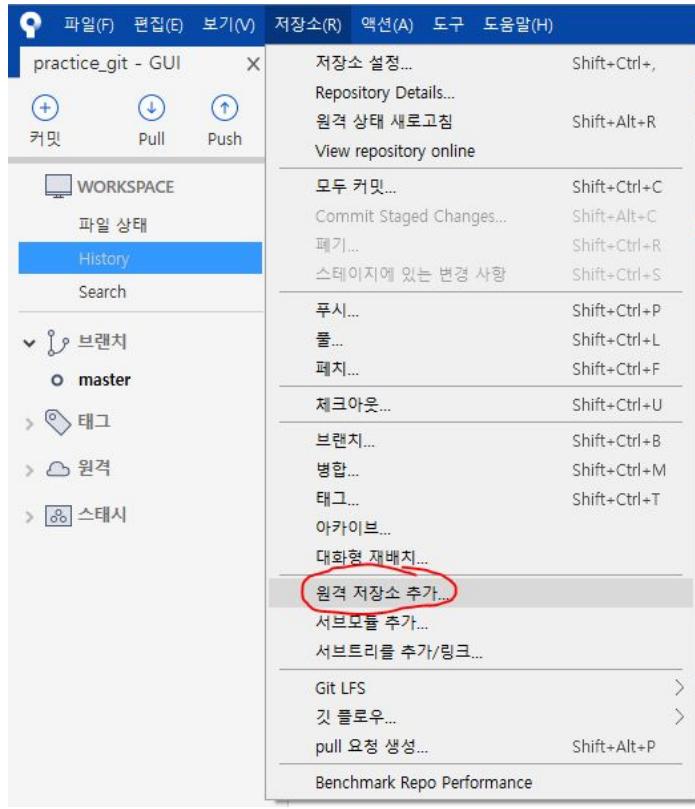
revert



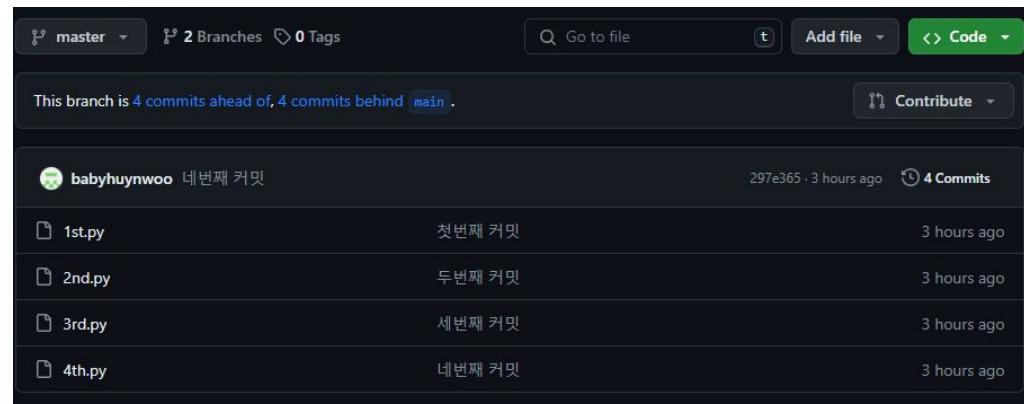
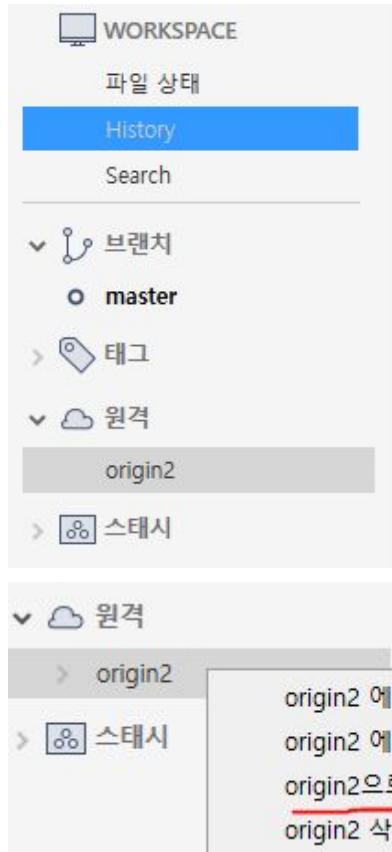
reset



GitHub 연동



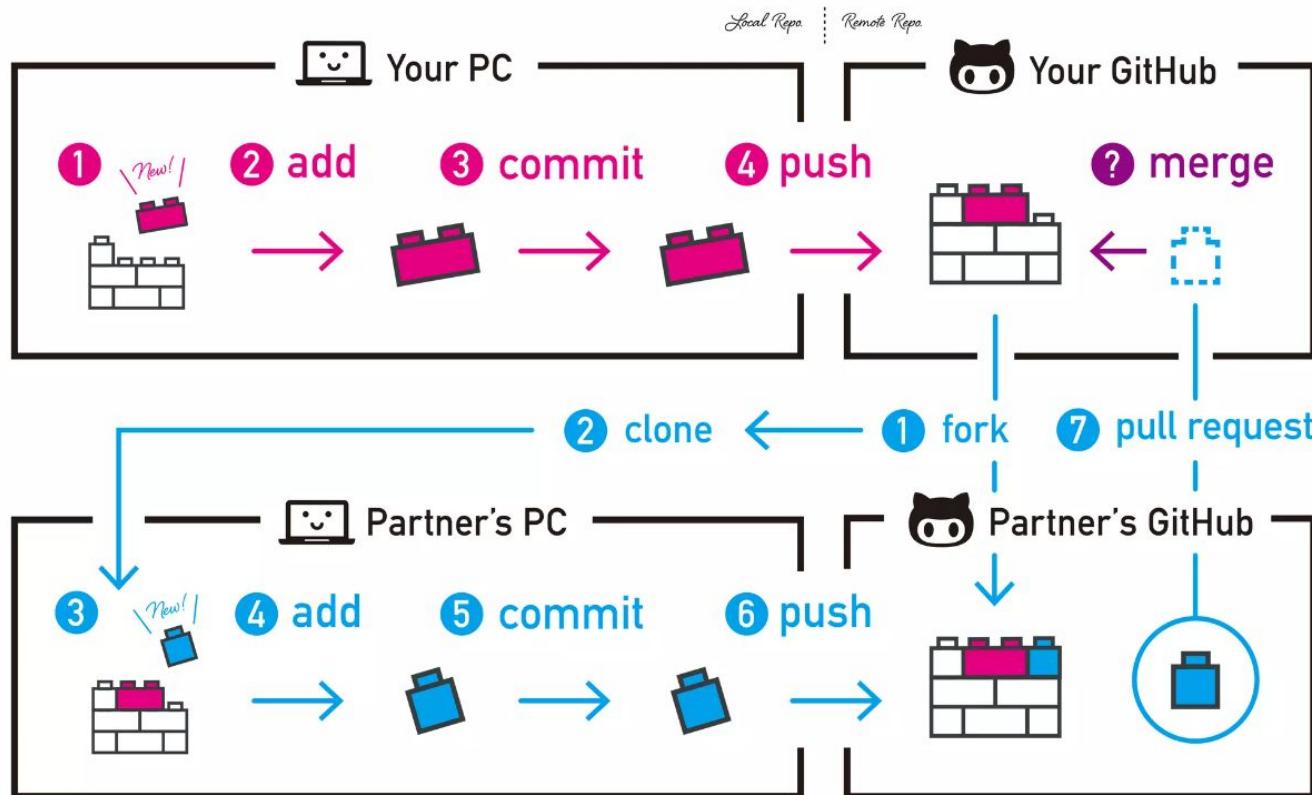
GitHub 에 push



Git / GitHub

How to "Pull Request"

designless.net



Git 의 구조 (Local + Remote)

