

Git for Beginners

A Beginner's Tutorial to Git and GitHub

MINSOO KIM

2017-05-31

Introduce Git

Git for Beginners



소스코드를 관리하는 방법?

Introduce Git

과제물을 대하는 우리의 모습



1차과제_제출.docx



1차과제_제출_02
Final.docx



1차과제_제출_02
Final_Final...



1차과제_제출
_02.docx



1차과제_제출_02
Final_Final.docx



1차과제_제출_02
Final_Final...

소스코드를 관리하는 방법?

Introduce Git

너와 내가 과제를 대하는 방법



1차과제_160530_
김민수.docx



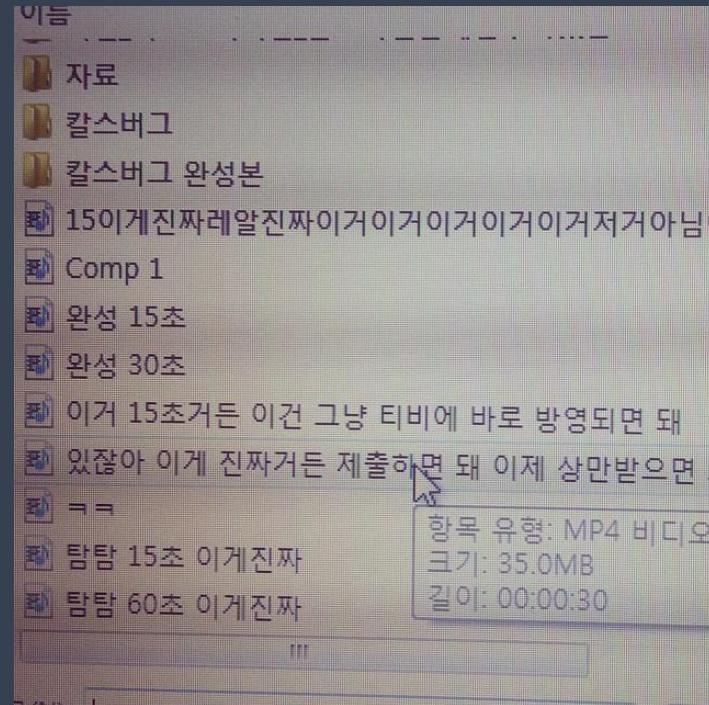
1차과제_160531_
김민수_조윤형_통합.docx



1차과제_160531_
조윤형.docx



1차과제_160531_
김민수_조윤형_
통합_02_FINAL.docx



소스코드를 관리하는 방법?

Introduce Git

더욱이.... 여럿이 제작하는 프로젝트의 프로그램 소스코드는?

내가 작성한 코드를 옆자리 무식이가 빼먹었다.

팀장이 뭔가 수정했다는데 대체 어딜 수정했는지 모르겠다.

그래서 씁니다. 버전 관리 시스템

기막힌 기능을 구현하다가 프로젝트 전체가 컴파일이 안된다. 망했다.

근데 내일이 마감.

결론적으로 우리 프로젝트는 망했다.

Git 이란?

Introduce Git

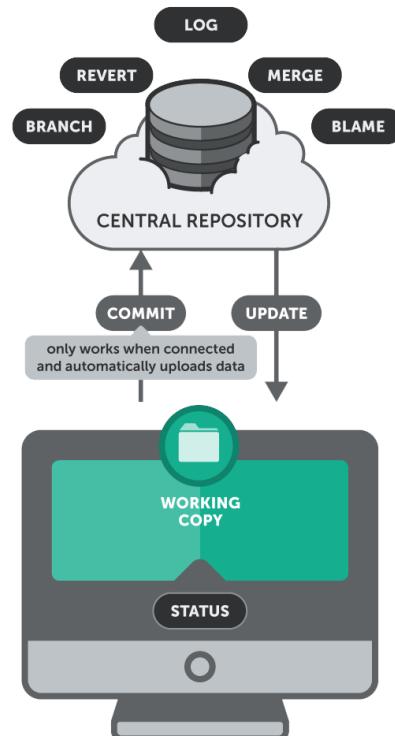
- 프로그램등의 소스 코드 관리를 위한
분산 버전 관리 시스템
- 리눅스 토발즈가 개발
- 빠른 수행 속도
- 대규모 프로젝트에서 사용 가능



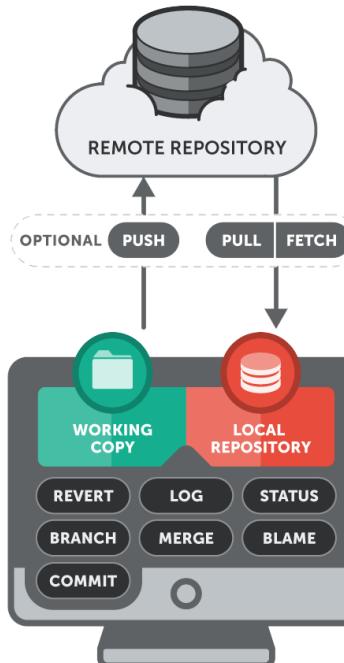
Subversion vs Git

Introduce Git

SUBVERSION



GIT



Git Workspace

Introduce Git

Remote repository

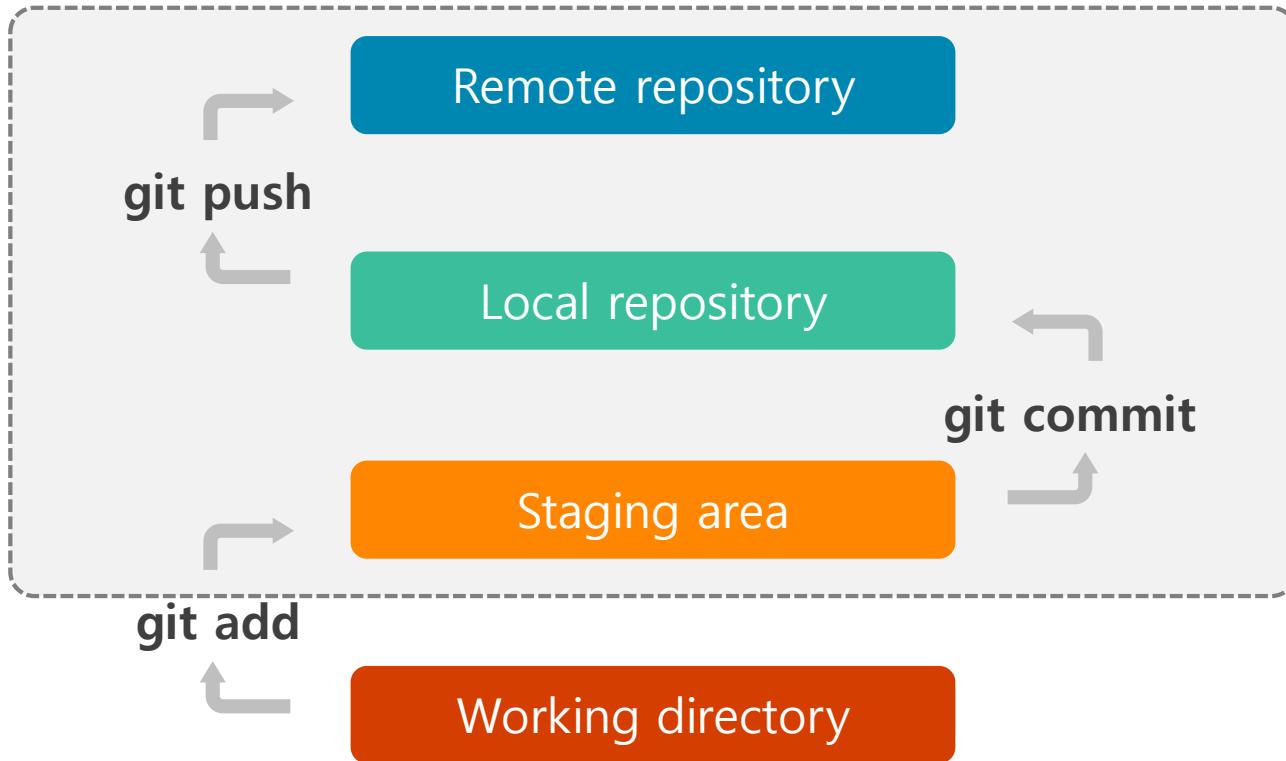
Local repository

Staging area

Working directory

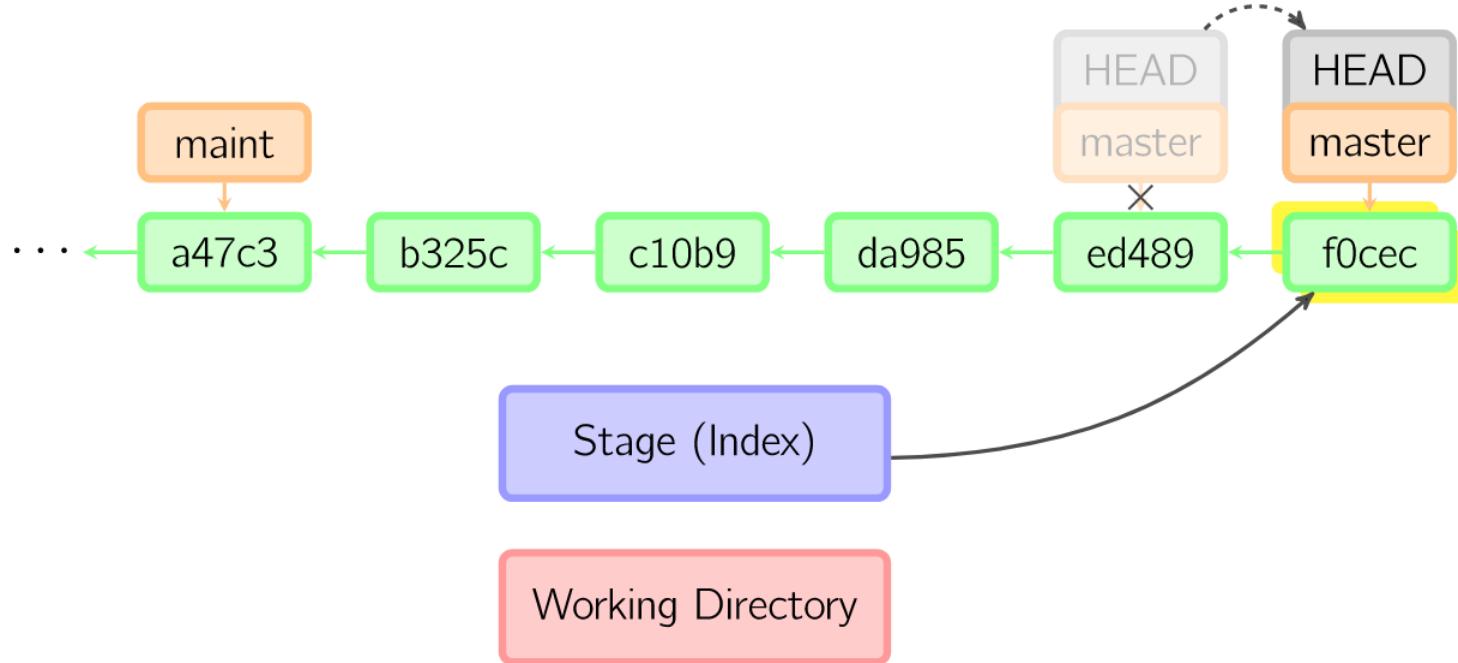
Git Commands

Introduce Git



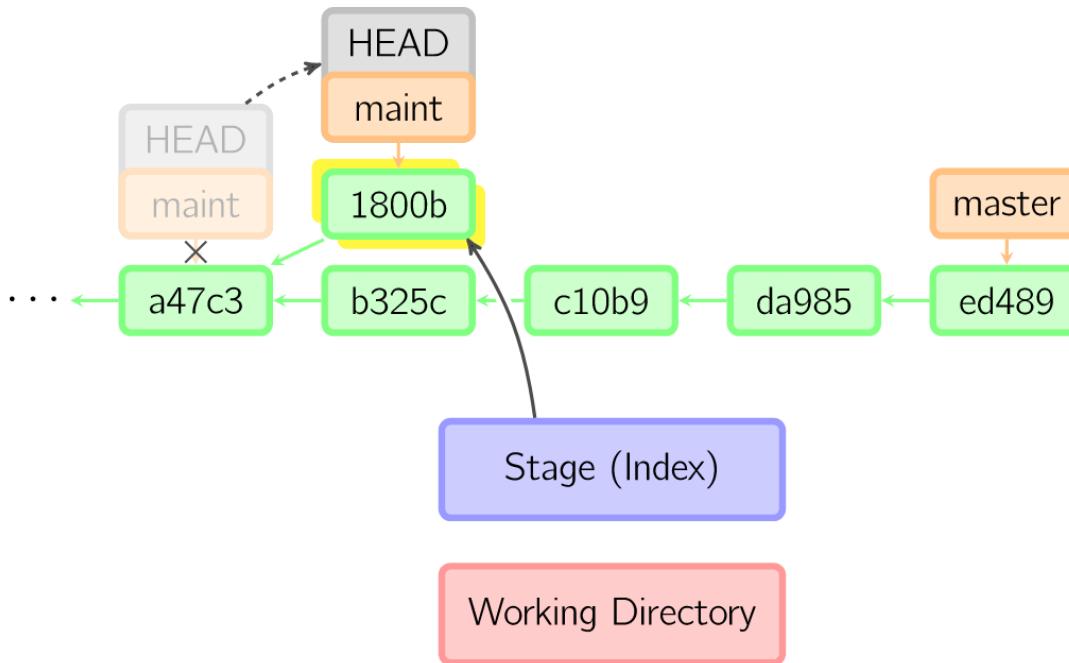
Git Commit

Introduce Git



Git Commit

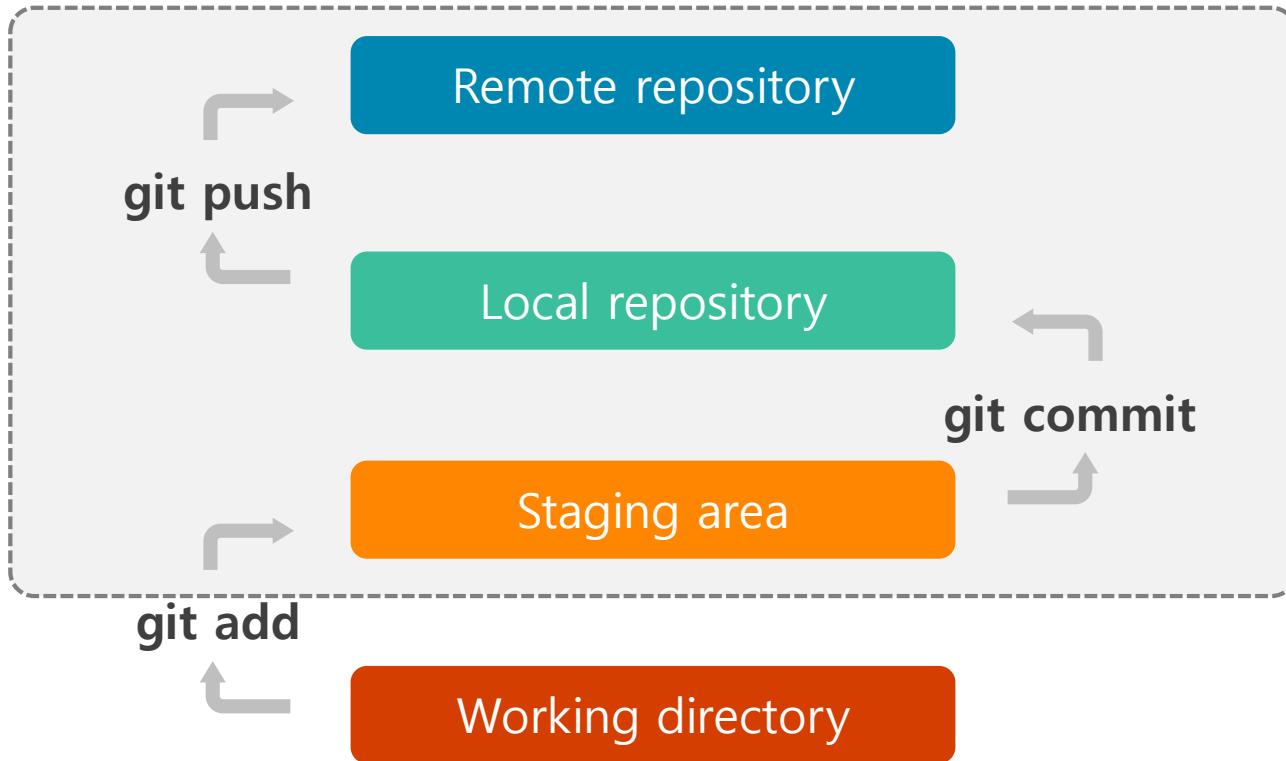
Introduce Git



<http://marklodato.github.io/visual-git-guide/index-ko.html>

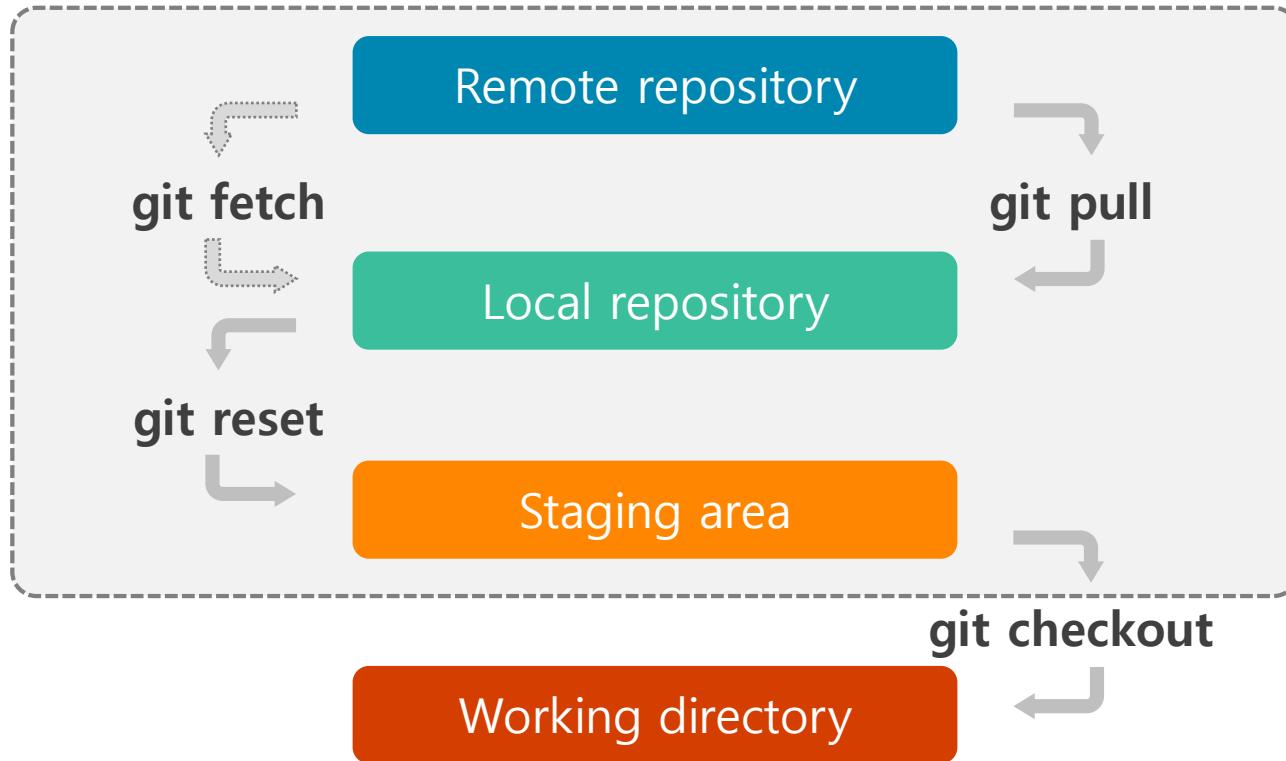
Git Commands

Introduce Git



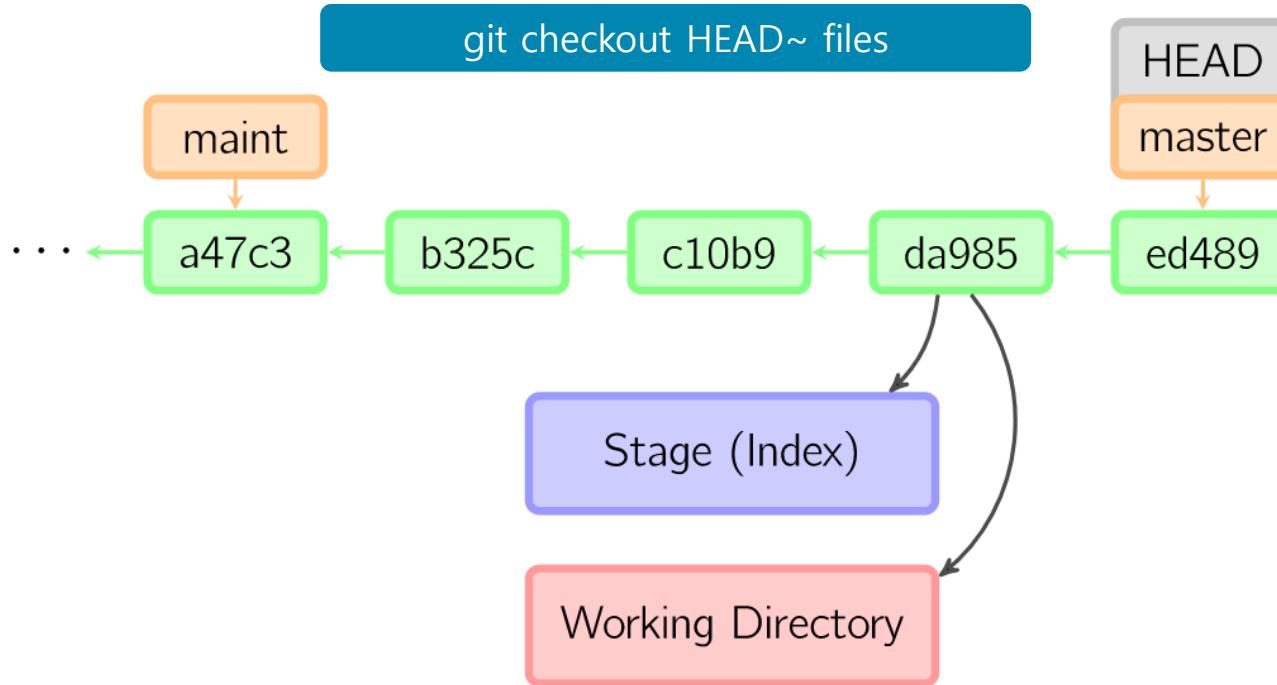
Git Commands

Introduce Git



Git Checkout

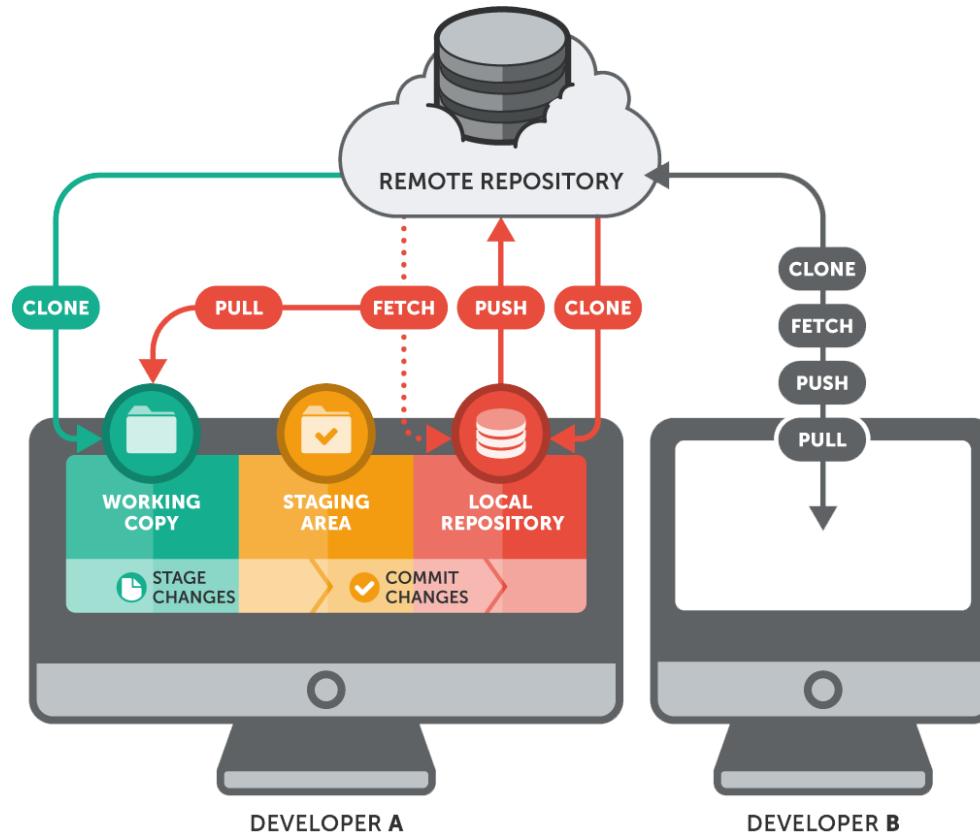
Introduce Git



<http://marklodato.github.io/visual-git-guide/index-ko.html>

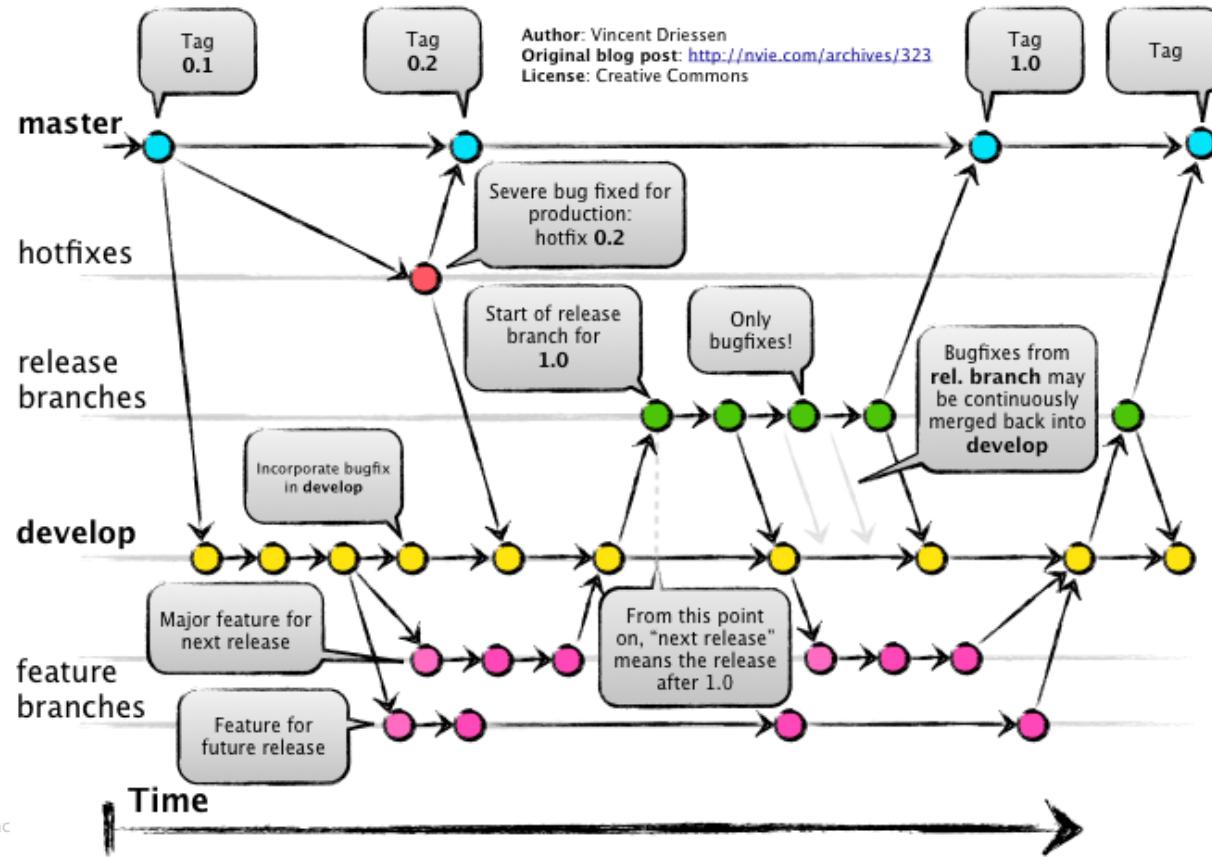
Git Commands

Introduce Git



Git Flow

Introduce Git



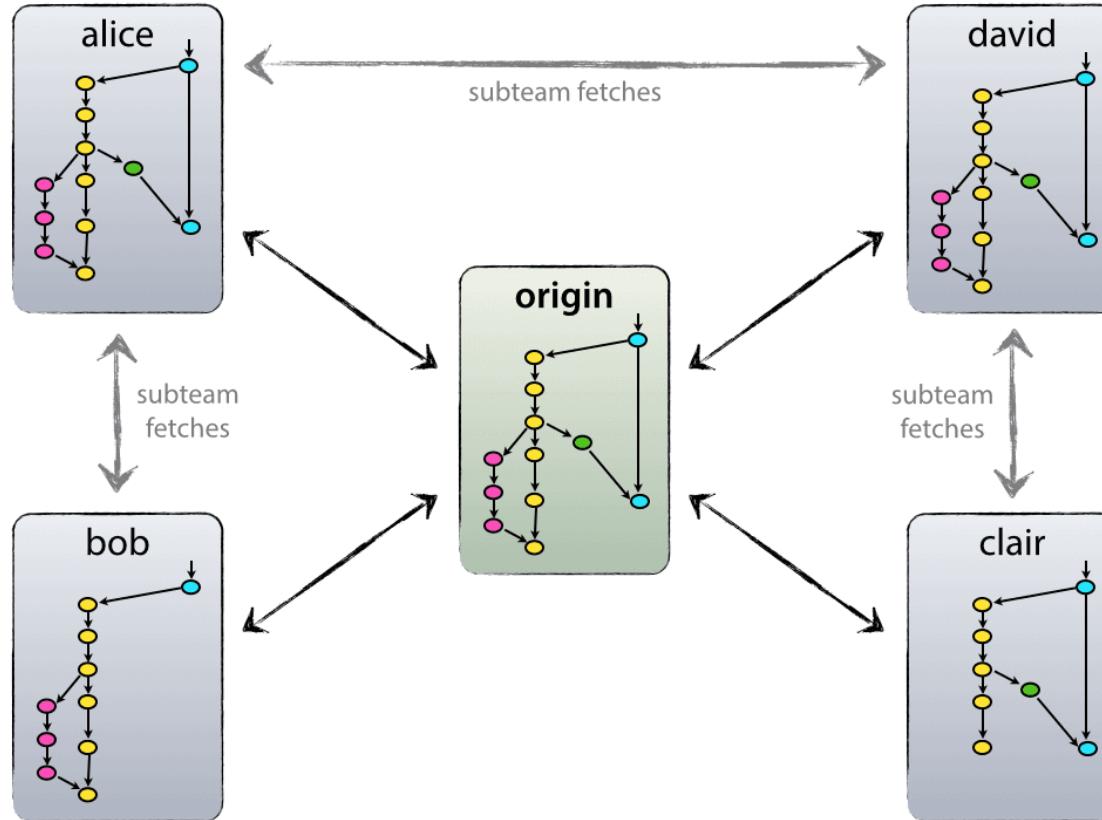
Git Flow

Introduce Git

- Key Benefits
 - Stable versions ready for production via ***master*** branch
 - Staging area via ***develop*** branch
 - Collaboration via ***feature*** branches
 - Releases area via ***release*** branches
 - Support for emergency fixes via ***hotfix*** branch

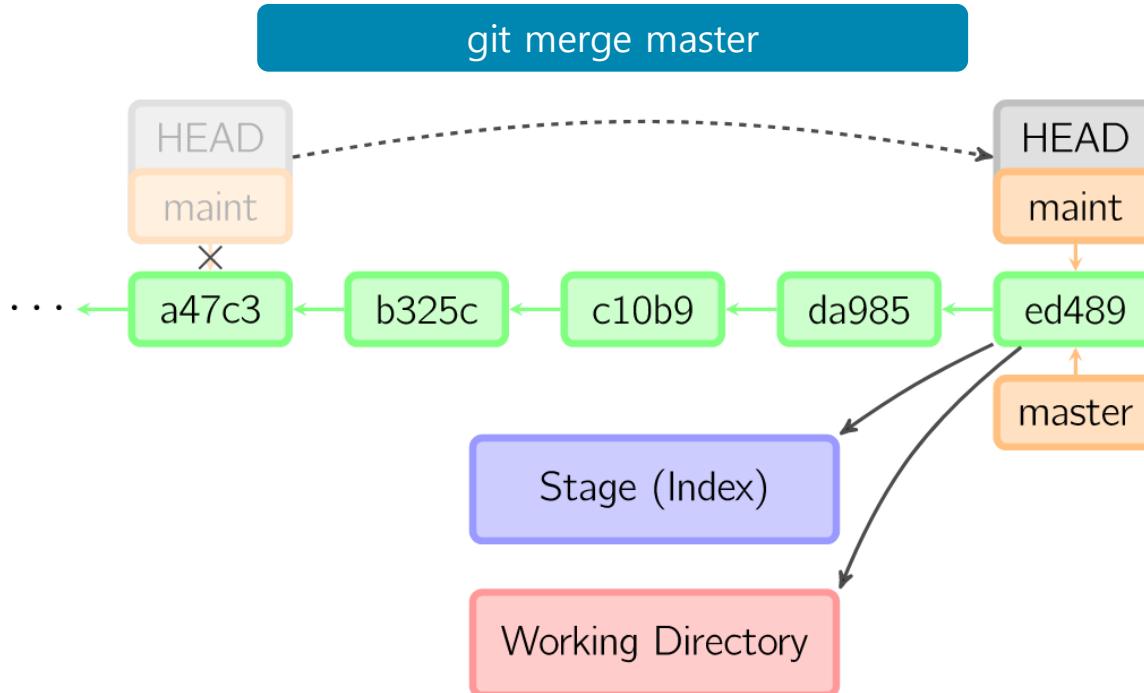
Git Branch

Introduce Git



Git Merge

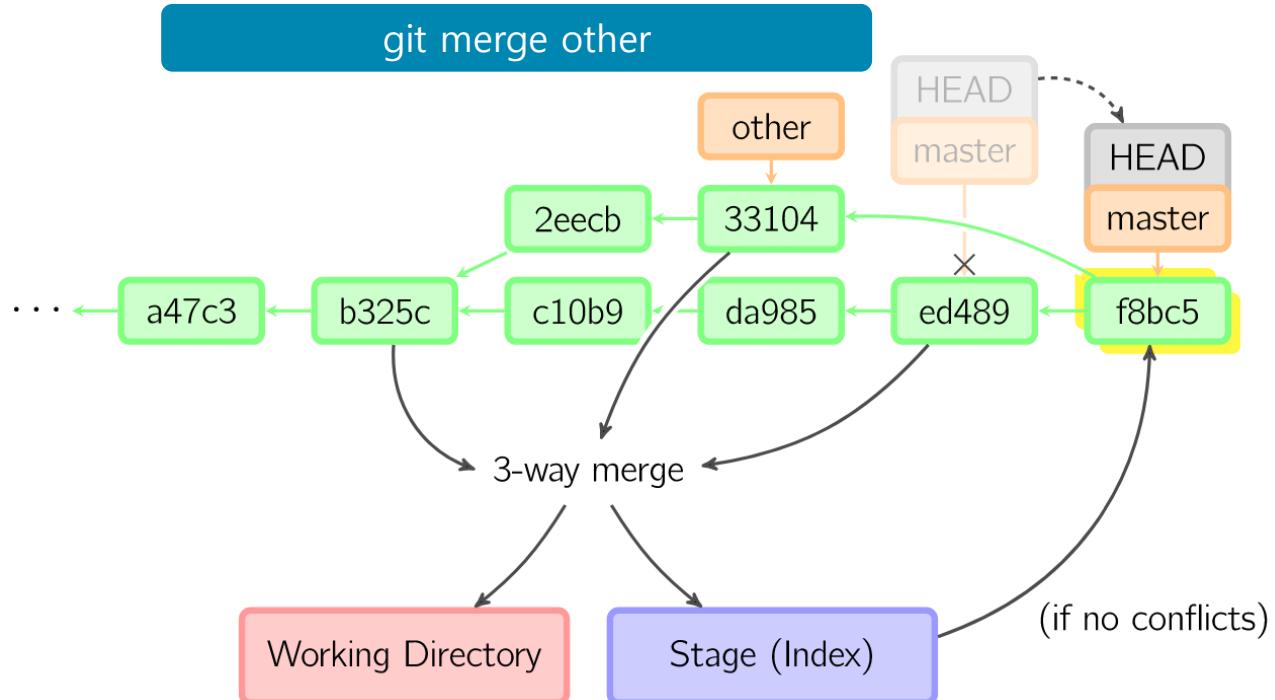
Introduce Git



<http://marklodato.github.io/visual-git-guide/index-ko.html>

Git Merge

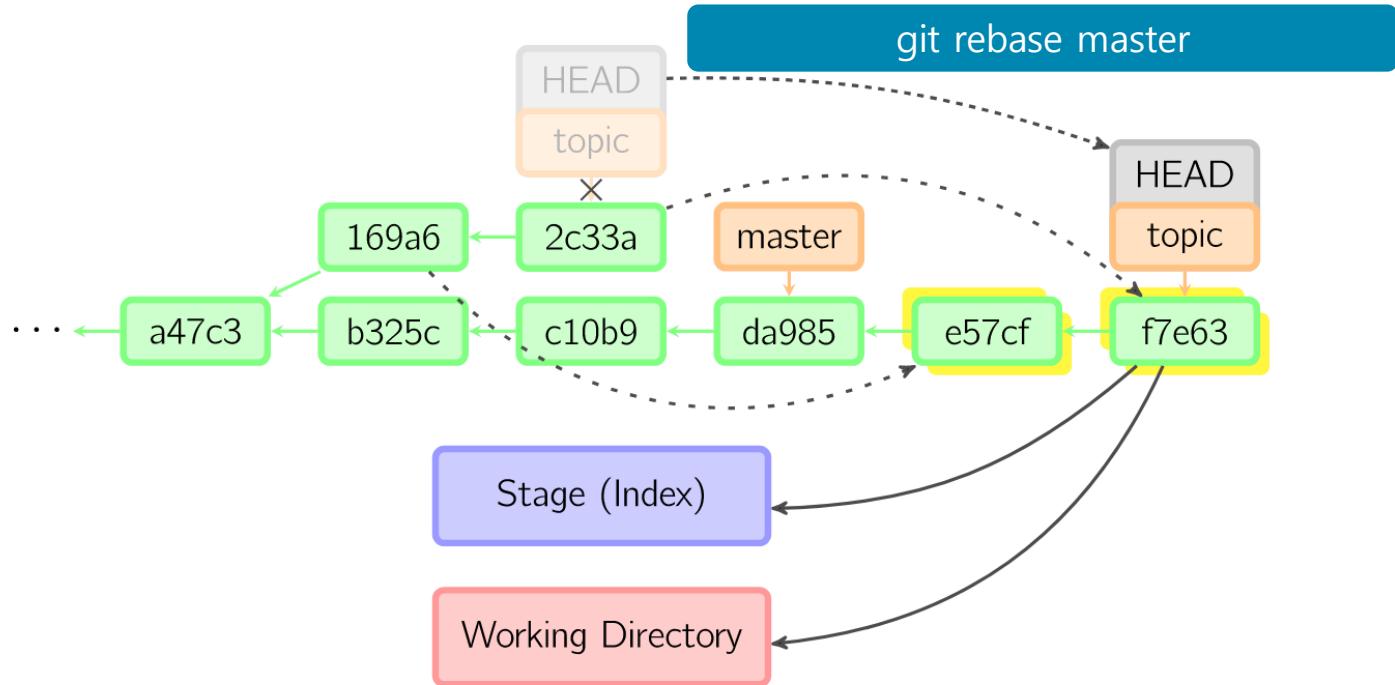
Introduce Git



<http://marklodato.github.io/visual-git-guide/index-ko.html>

Git Rebase

Introduce Git



<http://marklodato.github.io/visual-git-guide/index-ko.html>

Joining GitHub

Git for Beginners





Personal Open source Business Explore

Pricing Blog Support

Search GitHub

Sign in

Sign up

How people build software



Millions of developers use GitHub to build personal projects, support their businesses, and work together on open source technologies.

Pick a username

Your email address

Create a password

Use at least one letter, one numeral, and seven characters.

Sign up for GitHub

By clicking "Sign up for GitHub", you agree to our [terms of service](#) and [privacy policy](#). We'll occasionally send you account related emails.

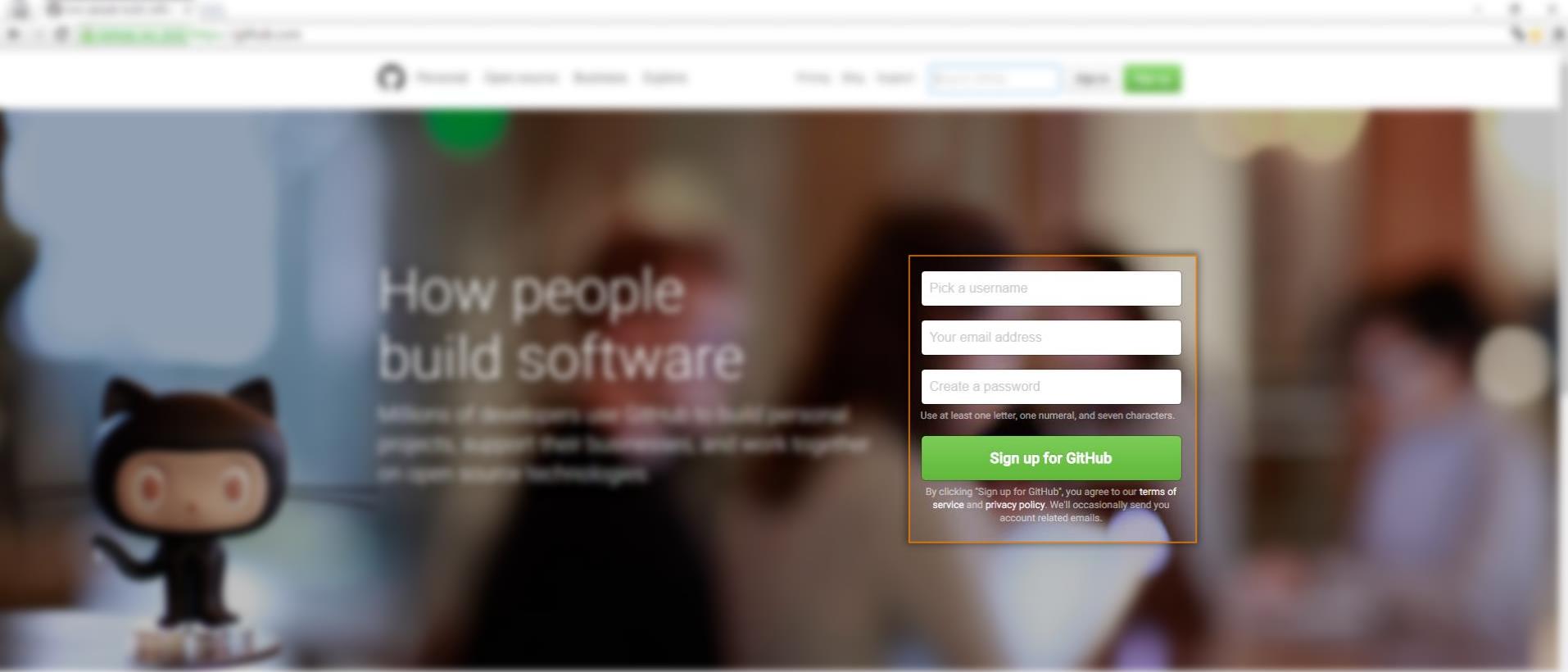
Introducing unlimited
private repositories

All of our paid plans on GitHub.com now include unlimited private repositories. Sign up to get started or read more about this change on our blog.

웹 브라우저에서 github.com으로 이동합니다.

Welcome home, developers

GitHub features a fast, flexible, and collaborative development environment.



메인 페이지에서 유저이름, 이메일 주소, 비밀번호를 입력 후
Sign up for Github을 클릭합니다.



Search GitHub

Pull requests Issues Gist

+ -

Welcome to GitHub

You've taken your first step into a larger world, @MSDBK.

Completed
Set up a personal account

Step 2:
Choose your plan

Step 3:
Go to your dashboard

Choose your personal plan

Unlimited public repositories for free.

Unlimited private repositories for \$7/month. (view in KRW)

Don't worry, you can cancel or upgrade at any time.

Help me set up an organization next

Organizations are separate from personal accounts and are best suited for businesses who need to manage permissions for many employees.
[Learn more about organizations.](#)

Both plans include:

- ✓ Collaborative code review
- ✓ Issue tracking
- ✓ Open source community
- ✓ Unlimited public repositories
- ✓ Join any organization

Finish sign up



계정 정보를 설정합니다.

Welcome to GitHub

You've joined your first team with a larger codebase.

Choose your personal plan

Unlimited public repositories for free.

Unlimited private repositories for \$7/month. (view in KRW)

Don't worry, you can cancel or upgrade at any time.

Get started

무료 계정 사용 시 Public Repository 만 생성 가능합니다.

계정 설정을 종료하고 회원가입을 완료합니다.



Search GitHub

Pull requests Issues Gist

+ -



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.

[Let's get started!](#) MSDBK ▾Welcome to GitHub! What's next? (33 seconds ago)

- [Create a repository](#)
- [Tell us about yourself](#)
- [Browse interesting repositories](#)
- [Follow @github on Twitter](#)

Your repositories 0

[New repository](#)

You don't have any repositories yet!
[Create your first repository or learn more about Git and GitHub.](#)

[Subscribe to your news feed](#)

💡 **ProTip!** Edit your feed by updating the users you [follow](#) and repositories you [watch](#).



일단 회원가입이 완료되었습니다.

메일쓰기 | 내개쓰기

안읽은메일 1

메일검색

검색 | 상세검색

 전체선택  삭제  답장  전체답장  전달  수신거부  이동  일정표시  PC에 저장날짜  크기 

  보낸사람	제목	
 GitHub	 [받은메일함] [GitHub] Please verify your email address.	22:55 21.04 KB

 전체메일

안읽음 1

받은메일함 1

내개쓴메일함

보낸메일함

수신확인

임시보관함

스팸메일함

휴지통

비움

골라보기     ▼ 개인메일함   정연돈 교수님 자료구조 도서관 LAB▼ RSS 

회원가입 시 입력한 이메일을 확인합니다.



GitHub

✉️ [받은메일함] [GitHub] Please verify your email address. 🔍

22:55

21.04 KB

GitHub에서 보낸 인증 메일이 도착해 있습니다.

메일쓰기 | 내개쓰기

안읽은메일

목록 담장 전체담장 전달 ✎ 삭제 이동

[GitHub] Please verify your email address. ☆

+ 보낸사람 "GitHub" <noreply@github.com> ✎

HTML

2016-05-29 22:55 (GMT +0900)

 이미지 표시 이미지 차단 모든 HTML 태그 차단 [이 주소에서 온 메일을 항상 이미지 표시](#)

?



Hi @MSDBK!

Help us secure your GitHub account by verifying your email address
(msdb@korea.ac.kr). This lets you access all of GitHub's features.

[Verify email address](#)

Button not working? Paste the following link into your browser:
https://github.com/users/MSDBK/emails/22724950/confirm_verification/c0a87367ba44d7fd41a83fc4d9b1d148a092db9e

You're receiving this email because you recently created a new GitHub account or added a new email address. If this wasn't you, please ignore this email.

Sent with <3 by GitHub.
GitHub, Inc. 88 Colin P Kelly Jr Street
San Francisco, CA 94107

이메일 인증을 진행합니다.

간편 담장 | 받는사람 "GitHub" <noreply@github.com>

클치기 ▾

Verify email address 버튼을 클릭합니다.

Your email was verified.

x

Learn Git and GitHub without any code!

Using the free, hands-on guide, you'll learn the basics of version control with GitHub, without ever writing code.

[Get started](#)



Welcome to GitHub!

git@github.com:.../HelloWorld

git clone https://github.com/gitimmortal/HelloWorld.git



git pull origin master

git push origin master

git status

이메일 인증이 완료되었습니다.

받은메일함

목록 담당 전체답장 전달 삭제 이동

Welcome to GitHub! ☆

+ 보낸사람 "GitHub" <support@github.com>

HTML 2016-05-29 22:58 (GMT +0900)

이미지 표시 이미지 차단 모든 HTML 태그 차단 [이 주소에서 온 메일을 항상 이미지 표시](#)

GitHub

Welcome,
@MSDBK!

GitHub lets you version your code, collaborate with others, and share what you've built with the world. We're excited to see what you make.



Ready to get started?

Ready to put your first open source project on GitHub? Get started by creating a repository for your work to live in. A repository will let you version your work, open issues to talk about problems, and invite contributors to work with you.

축하합니다.

GitHub 가입이 완료되었습니다.

[Or, read the Hello World guide](#)

Create a Repository

A Beginner's Tutorial to Git and GitHub





Search GitHub

Pull requests Issues Gist

+ -



+



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.

[Let's get started!](#) MSDBK ▾Welcome to GitHub! What's next? (33 seconds ago)

- [Create a repository](#)
- [Tell us about yourself](#)
- [Browse interesting repositories](#)
- [Follow @github on Twitter](#)

💡 ProTip! Edit your feed by updating the users you [follow](#) and repositories you [watch](#).

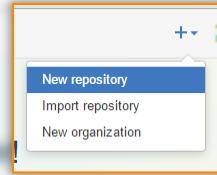
Your repositories 0

[New repository](#)

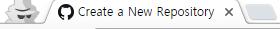
You don't have any repositories yet!
Create your first repository or learn more about
Git and GitHub.

[RSS](#) Subscribe to your news feed

프로젝트 저장소 생성을 진행하겠습니다.



상단 '+' 버튼을 클릭하여 새 저장소 생성을 진행합니다.



Search GitHub

Pull requests Issues Gist



Create a new repository

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

Owner



/ KOREAUNIV_DS_03



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

Description (optional)

Korea Univ Data Structure 03

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



Owner Repository name

 **MSDBK** / **KOREAUNIV_DS_03** 

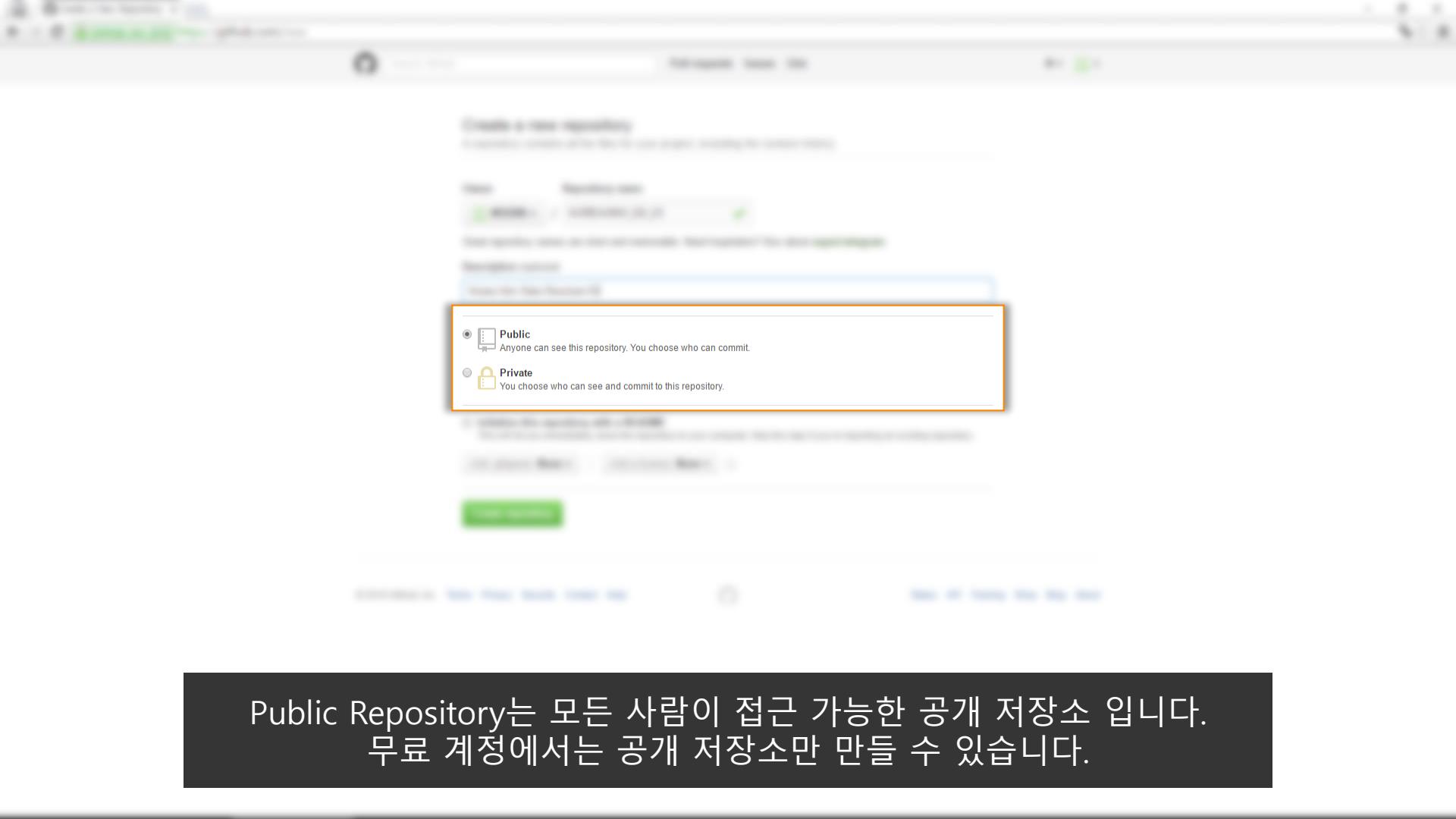
Great repository names are short and memorable. Need inspiration? How about [expert-telegram](#).

저장소 이름을 입력합니다.

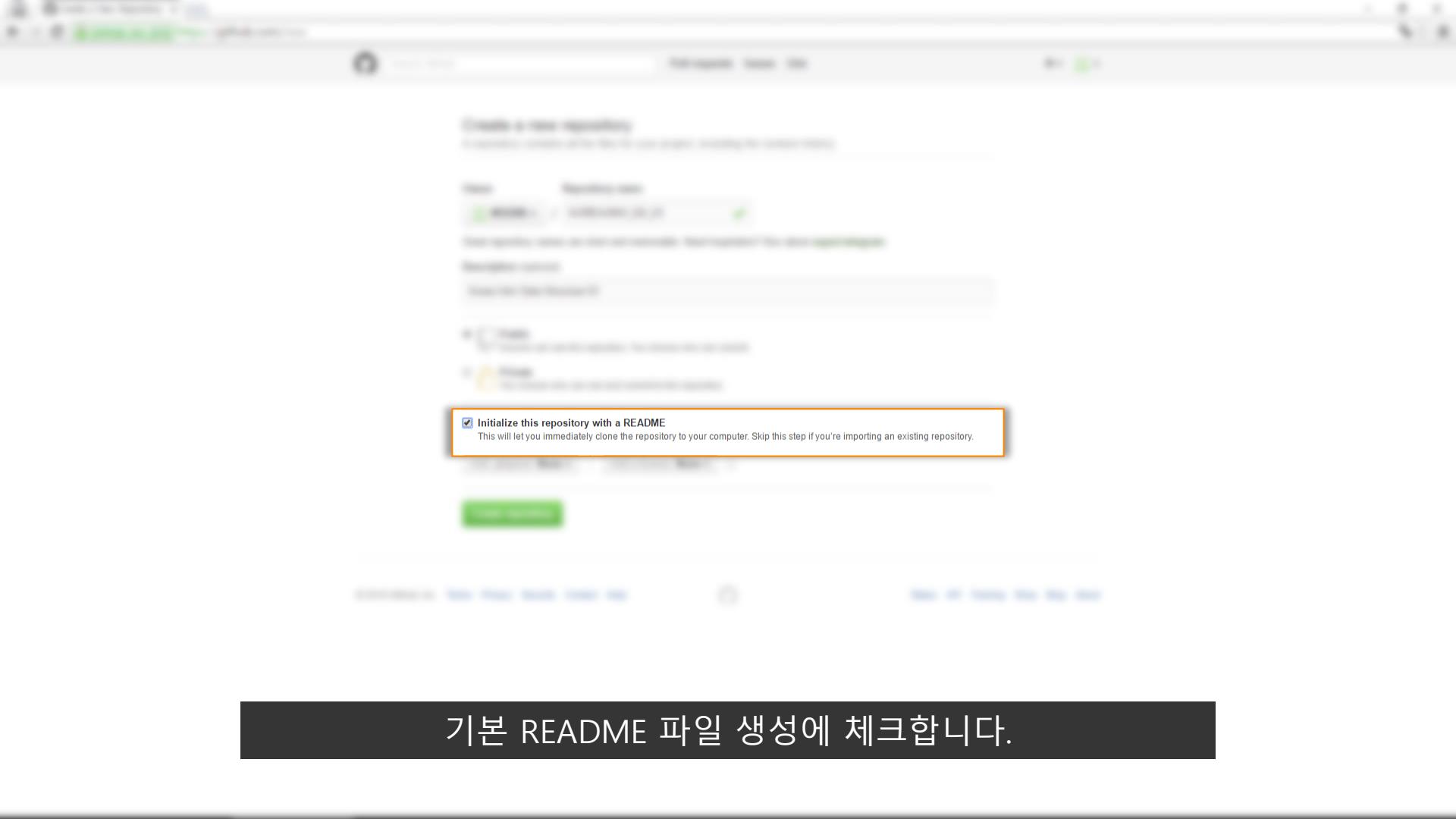
Description (optional)

Korea Univ Data Structure 03|

설명을 입력합니다. (optional)

- 
- The screenshot shows a blurred GitHub interface for creating a new repository. In the center, there is a modal or dropdown menu with two options: "Public" and "Private". The "Public" option is selected, indicated by a radio button and a checked icon. Its description states: "Anyone can see this repository. You choose who can commit." The "Private" option is also listed with its description: "You choose who can see and commit to this repository." An orange rectangular box highlights this selection area.
-  **Public**
Anyone can see this repository. You choose who can commit.
 -  **Private**
You choose who can see and commit to this repository.

Public Repository는 모든 사람이 접근 가능한 공개 저장소입니다.
무료 계정에서는 공개 저장소만 만들 수 있습니다.

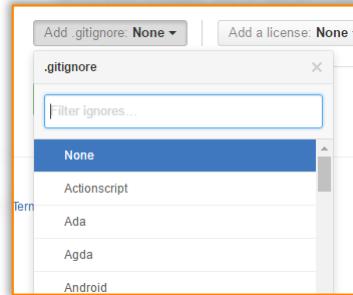


Initialize this repository with a README

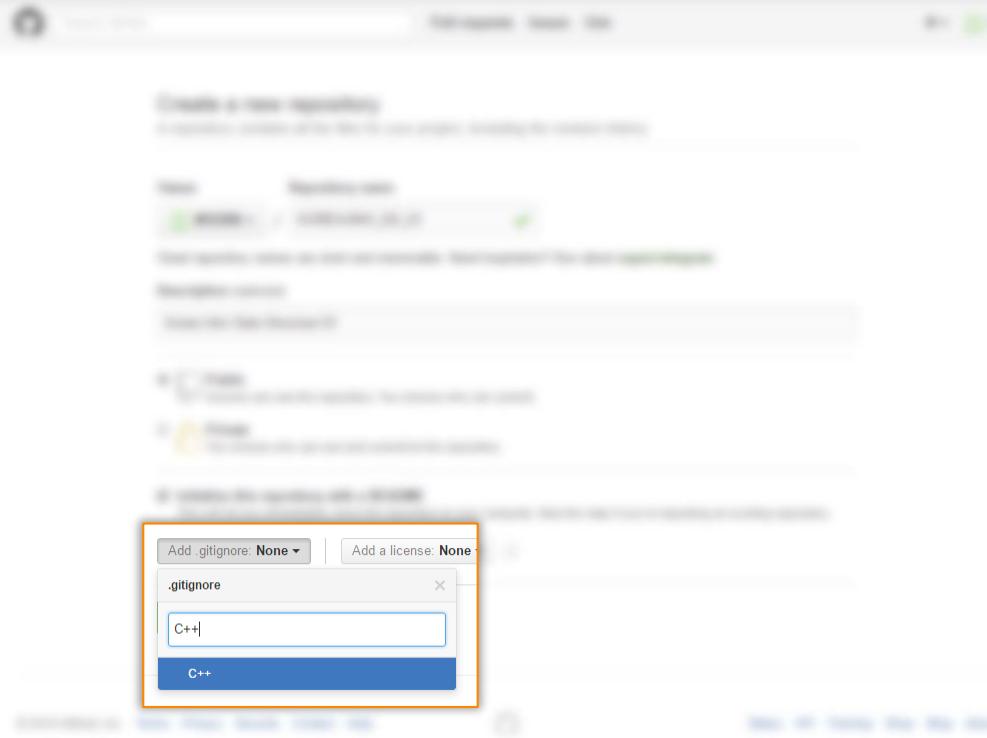
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Create repository

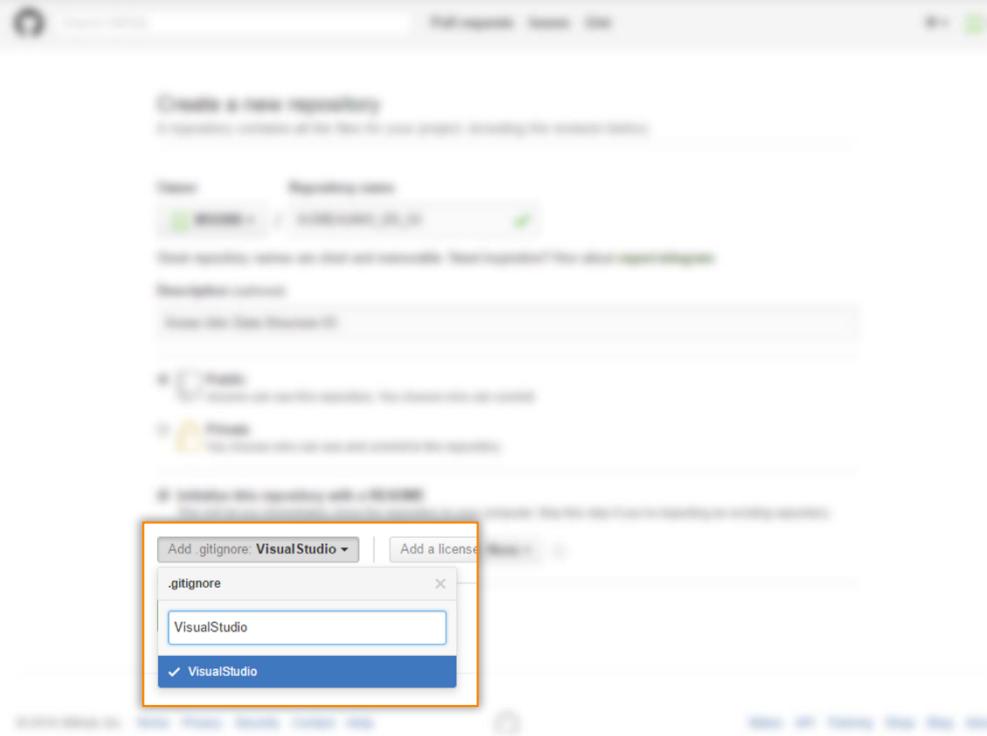
기본 README 파일 생성에 체크합니다.



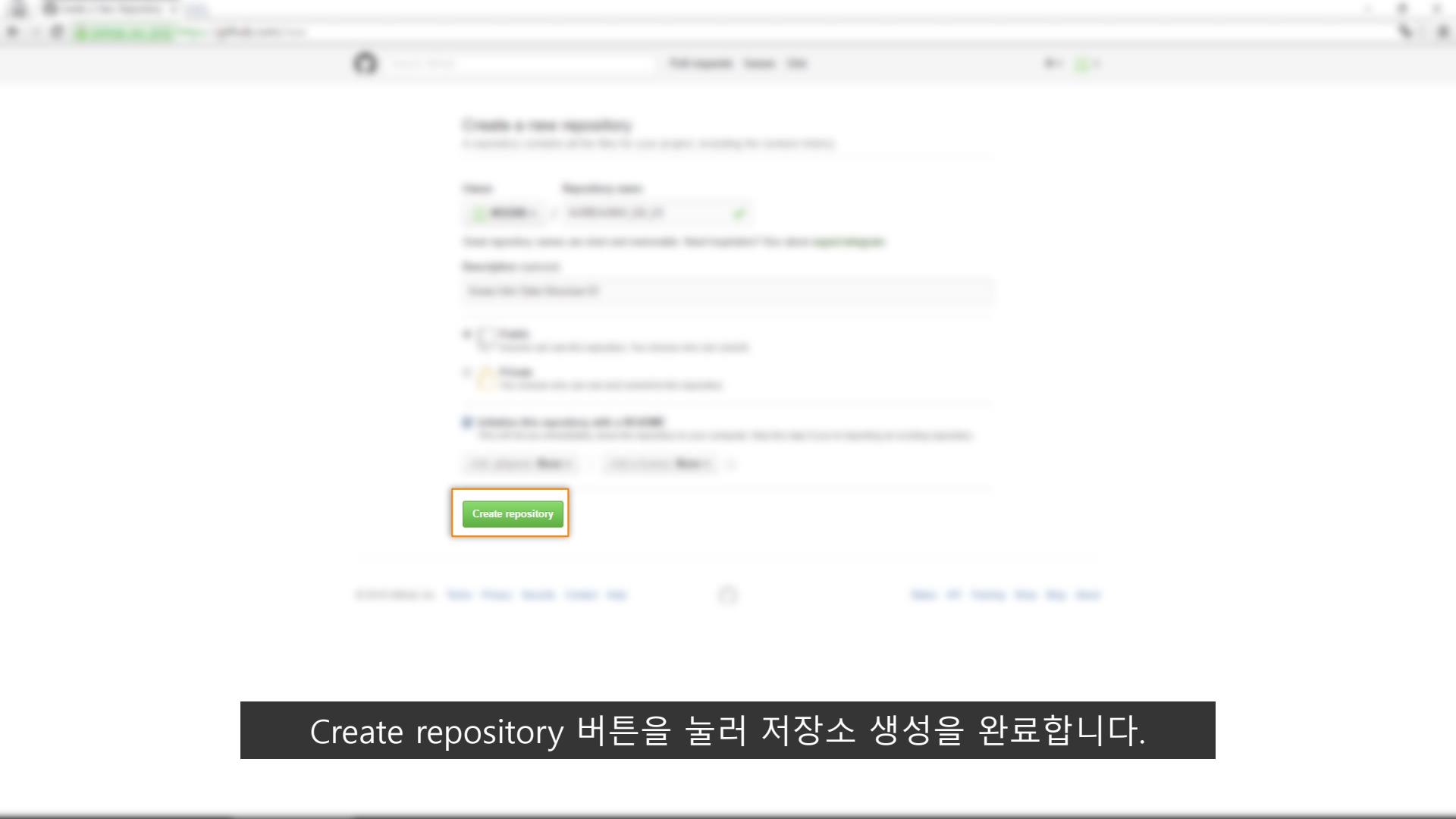
Gitignore 파일을 설정합니다.
Gitignore에서는 저장소에서 무시할 파일 목록을 설정합니다.



예를 들어 C++ 프로젝트를 생성한다면 다음과 같이 작성 가능합니다.



특정 IDE의 임시 파일을 무시하려면 다음과 같이 작성 가능합니다.



Create repository

Create repository 버튼을 눌러 저장소 생성을 완료합니다.

MSDBK/KOREAUNIV_DS_03 GitHub, Inc. [US] https://github.com/MSDBK/KOREAUNIV_DS_03

This repository Search Pull requests Issues Gist + Unwatch 1 Star 0 Fork 0

MSDBK / KOREAUNIV_DS_03

Code Issues 0 Pull requests 0 Wiki Pulse Graphs Settings

Korea Univ Data Structure 03 — Edit

1 commit 1 branch 0 releases 1 contributor

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

MSDBK Initial commit Latest commit 81a7422 40 seconds ago

.gitignore Initial commit just now

README.md Initial commit just now

README.md

KOREAUNIV_DS_03

Korea Univ Data Structure 03



축하합니다. 새로운 저장소 생성을 완료하였습니다.



Features

Integrations

Server

Pricing

Log in

Get started

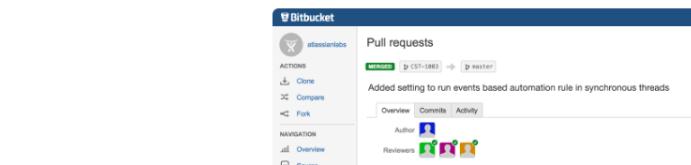
Code, Manage, Collaborate

Bitbucket is *the* Git solution for professional teams

[Get started for free](#)[Host it yourself with Bitbucket Server](#)

Built for professional teams

Distributed version control system that makes it easy for you to collaborate with your team. The only collaborative Git solution that massively scales.



Code collaboration on steroids

Approve code review more efficiently with pull requests. Hold discussions right in the source code with inline comments.

GitHub 외에도
Cooperatively scales

Have uninterrupted access with Bitbucket Data Center. East

Git Repository를 무료로 제공해주는 다양한 서비스가 존재합니다.

[Features](#) [Integrations](#) [Server](#) [Pricing](#) [Log in](#) [Get started](#)

Code, Manage, Collaborate

Bitbucket is *the* Git solution for professional teams

[Get started for free](#)

[Host it yourself with Bitbucket Server](#)

Built for professional teams

Distributed version control system that makes it easy for you to collaborate with your team. The only collaborative Git solution that massively scales.

The screenshot shows the Bitbucket web interface. On the left, there's a sidebar with navigation links like 'Actions' (Clone, Compare, Fork), 'Navigation' (Overview, Source, Commits), and 'Pull requests'. The main area is titled 'Pull requests' and shows a list with one item: 'Added setting to run events based automation rule in synchronous threads'. It includes tabs for 'Overview', 'Commits', and 'Activity'. Below the list, there's a section for 'Authors' and 'Reviews' with small profile icons. At the bottom, there are 'Comments (2)' and a note about creating a REST API.

Code collaboration on steroids

Approve code review more efficiently with pull requests. Hold discussions right in the source code with inline comments.

Git that massively scales

대표적으로는 Atlassian의 Bitbucket 등이 있습니다.

Dashboard

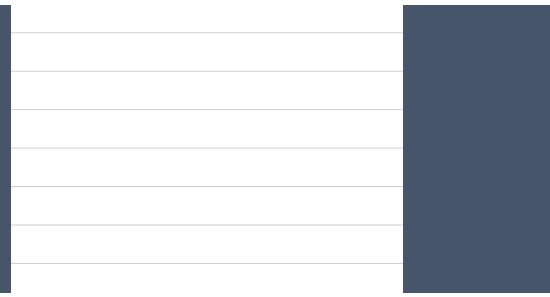
[Overview](#) [Pull requests](#) [Issues](#) [Snippets](#)FILTER BY: [Owner](#) ▾ [Project](#) ▾ [Watching](#)

Find repositories

Repository



Project



Owner



Last updated



Latest updates

Upgrade your account

We will soon join your Bitbucket account with a new or existing Atlassian account. To get a head start, you can upgrade now.

[Learn more](#)

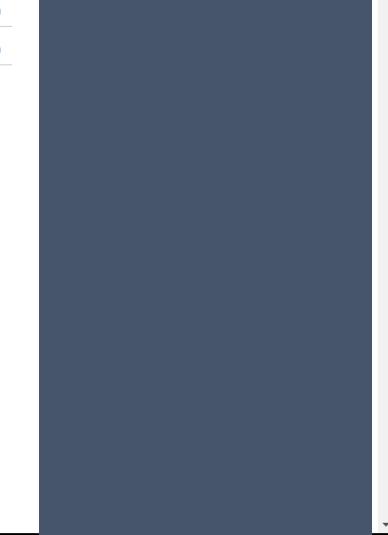
Bitbucket - now with Continuous Delivery

Sign up for the Bitbucket Pipelines Beta to manage your entire workflow in Bitbucket.

Pin a comment to the top of an issue

You can now pin a comment to the top of an issue, making it your official response.

Recent activity

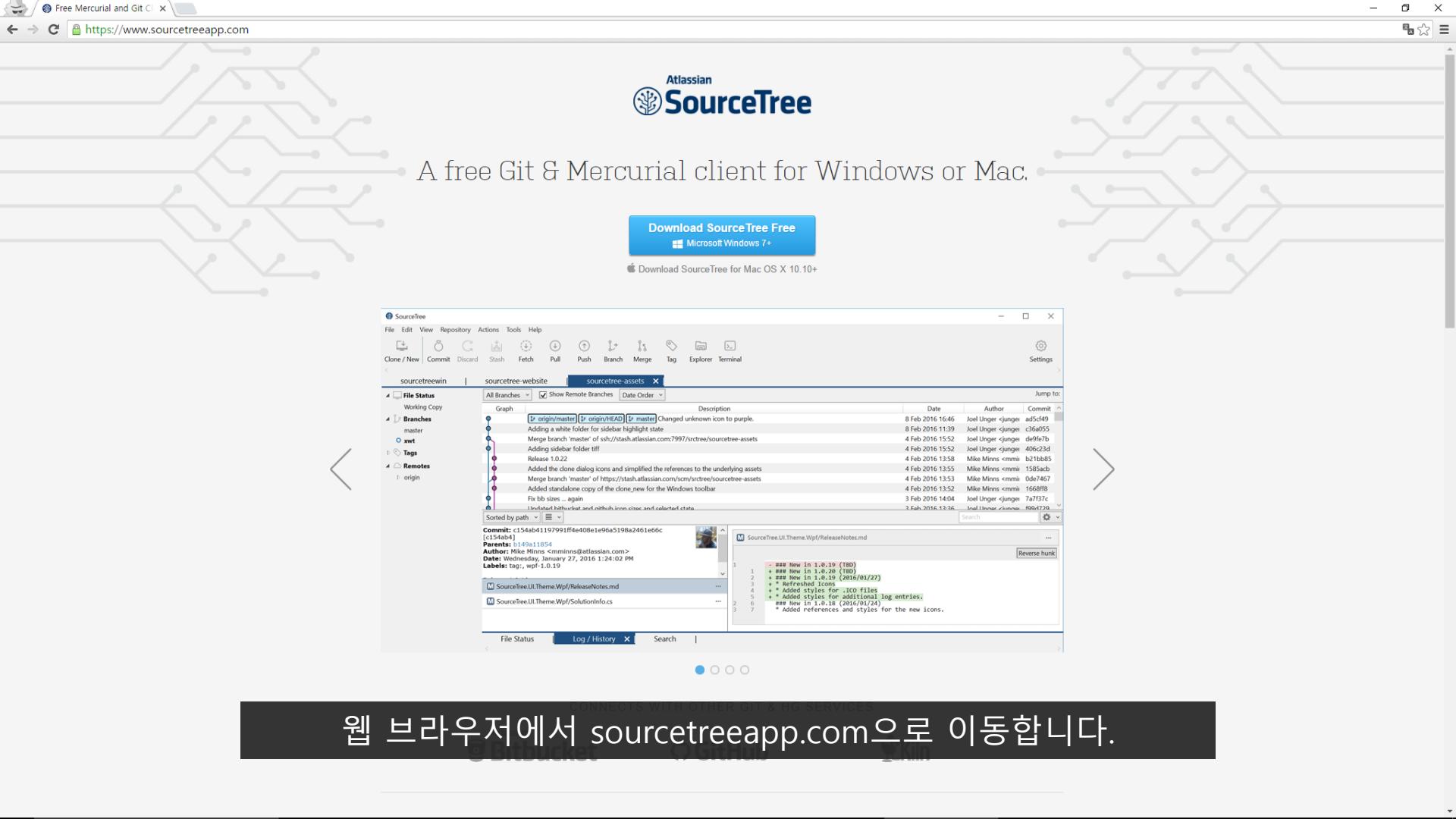


여기서는 무료로 Private repository 생성이 가능합니다.

Using Git with SourceTree(1)

Clone Remote Git Repository





The screenshot shows the SourceTree landing page. At the top, there's a navigation bar with icons for back, forward, search, and a star. The URL is https://www.sourcetreeapp.com. The main header features the Atlassian logo and the SourceTree logo with a stylized tree icon. Below the header, a large text block says "A free Git & Mercurial client for Windows or Mac." There are two download buttons: "Download SourceTree Free" for Microsoft Windows 7+ and "Download SourceTree for Mac OS X 10.10+". A central image shows a complex network of circuit boards and wires. In the center, there's a screenshot of the SourceTree application window showing a file status graph and commit history.

SourceTree

File Edit View Repository Actions Tools Help

Clone / New Commit Discard Stash Fetch Pull Push Branch Merge Tag Explorer Terminal

sourcefreewin | sourcetree-website | sourcetree-assets

All Branches Show Remote Branches Date Order

File Status Working Copy

Branches master xwt

Tags

Remotes origin

Graph

Description

Date Author Commit

Changed unknown icon to purple
Adding a white folder for sidebar highlight state
Merge branch 'master' of ssh://stash.atlassian.com:7997/srctree/sourcetree-assets
Adding sidebar folder tiff
Release 1.0.22
Added the clone dialog icons and simplified the references to the underlying assets
Merge branch 'master' of https://stash.atlassian.com/scm/srctree/sourcetree-assets
Added standalone copy of the clone_new for the Windows toolbar
Fix bb sizes ... again
Isolated birthmark_and_nothub.icon.circac_and.collect.ctata

8 Feb 2016 16:46 Joel Unger <junger> ad5fc49
8 Feb 2016 11:39 Joel Unger <junger> c36a055
4 Feb 2016 15:52 Joel Unger <junger> d0f6f7b
4 Feb 2016 15:52 Joel Unger <junger> 4062c3d
4 Feb 2016 13:58 Mike Minns <mminn> b21bb85
4 Feb 2016 13:55 Mike Minns <mminn> 1585acb
4 Feb 2016 13:53 Mike Minns <mminn> 0de7467
4 Feb 2016 13:52 Mike Minns <mminn> 1668ff8
3 Feb 2016 14:09 Joel Unger <junger> 7a7f37c
3 Feb. 2016 13:56 Joel Unger <junger> f00f720

Sorted by path

Commit: c154ab4119791f4e408e1e96a518a2461e6c
[13 lines] Parent: 1149a11854
Author: Mike Minns <mminns@atlassian.com>
Date: Wednesday, January 27, 2016 1:24:02 PM
Labels: tag, wpf-1.0.19

SourceTree.UI.Theme.Wpf/ReleaseNotes.md
SourceTree.UI.Theme.Wpf/SolutionInfo.cs

File Status Log / History Search

웹 브라우저에서 sourcetreeapp.com으로 이동합니다.

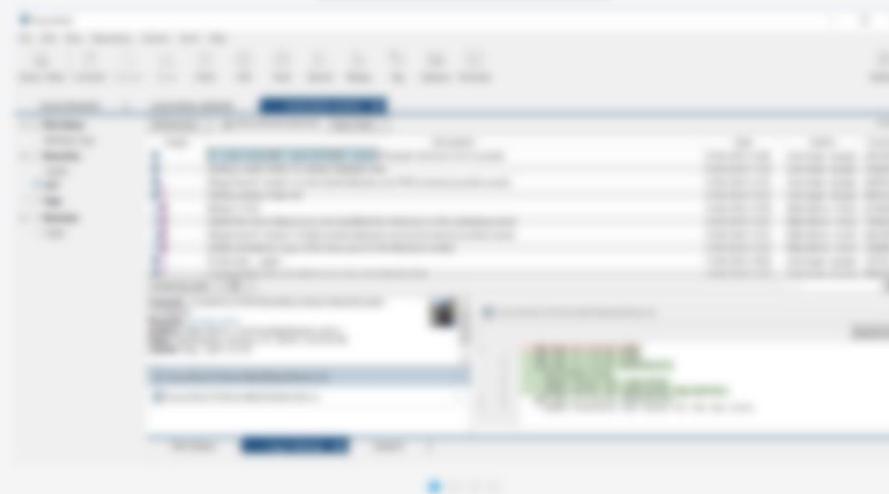


A free Git & Mercurial client for Windows or Mac

[Download SourceTree Free](#)

Microsoft Windows 7+

Download SourceTree for Mac OS X 10.10+



무료로 SourceTree 다운로드를 진행합니다.

Your download should start in a few seconds. If it doesn't, please use [direct link](#).

[Tweet](#)



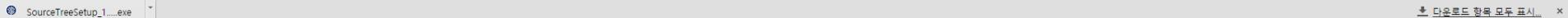
Git code management in the cloud or on your servers.



Continuous integration and deployment, release management.

[Register](#) | [Blog](#) | [Twitter](#) | [FAQ](#) | [Support](#)

Copyright © 2016 Atlassian





다운 받은 파일을 실행합니다.



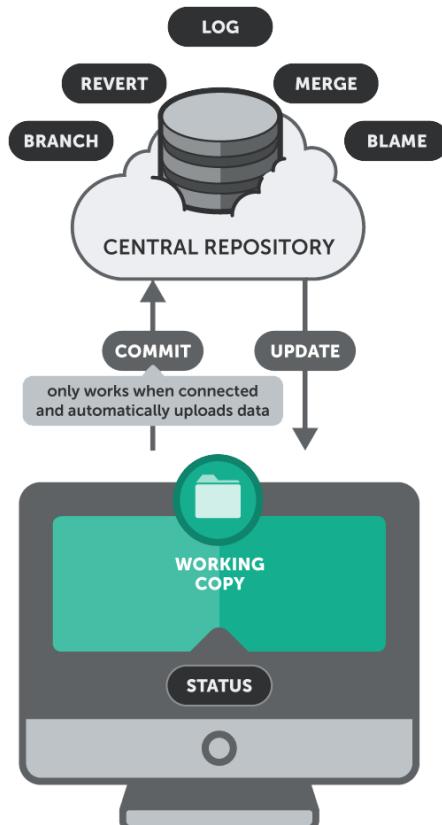
SourceTree 설치를 진행합니다.



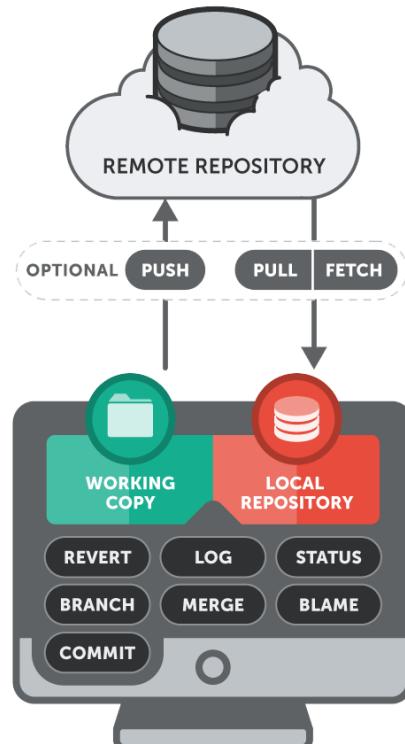
설정

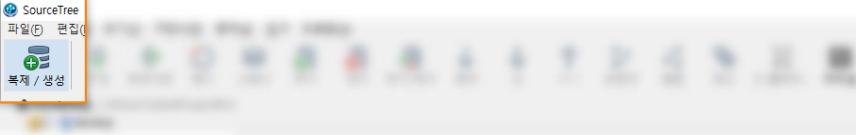
설치 후 SourceTree 를 실행시킵니다.

SUBVERSION



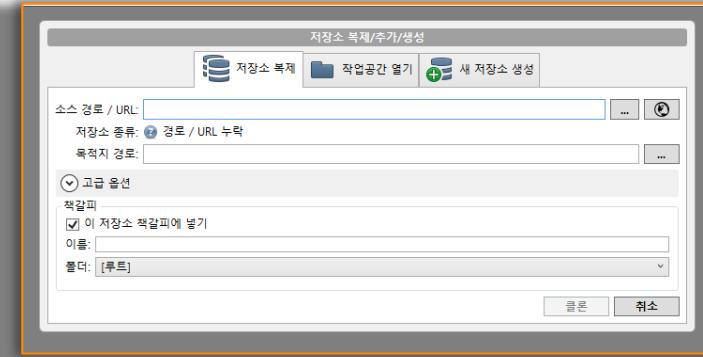
GIT







로컬 컴퓨터에 새 저장소를 추가합니다.
상단 좌측에 복제/생성 버튼을 클릭합니다.



새로운 저장소를 추가하기 위한 복제/추가/생성 창이 뜹니다.



원격 저장소를 불러오기 위해 우측의 지구본 아이콘을 클릭합니다.

SourceTree

파일(F) 편집(E) 보기(V) 저장소(R) 동작(A) 도구 도움말(H)

복제 / 생성 커밋 체크아웃 폐기 스테시 추가 제거 추가/제거 폐지 둘 푸시 브랜치 병합 태그 깃 플로우... 터미널

StockDeep C:\NewFolder\Project\StockDeep 2 | develop

설정

새 저장소 생성 X

제공 저장소

검색

새고침 개정 변경

이름	설명	호스트	소유자
Alenka	GPU database engine	GitHub	antonmks
android-calendar-card	Android calendar view (like card)	GitHub	kenumir
android-times-square	Standalone Android widget for picking a single date from a calendar view.	GitHub	square
awesome-android-ui	A curated list of awesome Android UI/UX libraries	GitHub	wasabeef
caffee	Caffe: a fast open framework for deep learning.	GitHub	BVLC
Caldroid	A better calendar for Android	GitHub	roomorama
elasticsearch	Open Source. Distributed, RESTful Search Engine	GitHub	elastic
hadoop	Mirror of Apache Hadoop	GitHub	RonyK
JoinUS	JoinUS	Bitbucket	RonyK
KoreaUnivCareer	KoreaUnivCareer	Bitbucket	RonyK
LSHBOX	A c++ toolbox of locality-sensitive hashing (LSH), provides several popular LSH algorithms, also support python and matlab.	GitHub	RSIA-LIESMARS-WI
MaterialNavigationDrawer	Navigation Drawer Activity with material design style and simplified methods	GitHub	neokree
MPAndroidChart	A powerful Android chart view / graph view library, supporting line- bar- pie- radar- bubble- and candlestick charts as well as scaling, dragging and animations.	GitHub	Philay
NLog	NLog - Advanced .NET and Silverlight Logging	GitHub	RonyK
opengov	서울시 행정정보 공개 깃허브입니다.(서울 정보소통광장) Github for the Seoul government information disclosure.	GitHub	seoul-opengov
secmemeb	everybody	Bitbucket	RonyK
spark	Mirror of Apache Spark	GitHub	apache
spark	Mirror of Apache Spark	GitHub	RonyK
StockDeep		Bitbucket	RonyK
tjsimdu	대전 당직일지	GitHub	jinoSon
VideoAnalysis		Bitbucket	RonyK
Wannabe		Bitbucket	RonyK

새 저장소 생성 확인 취소

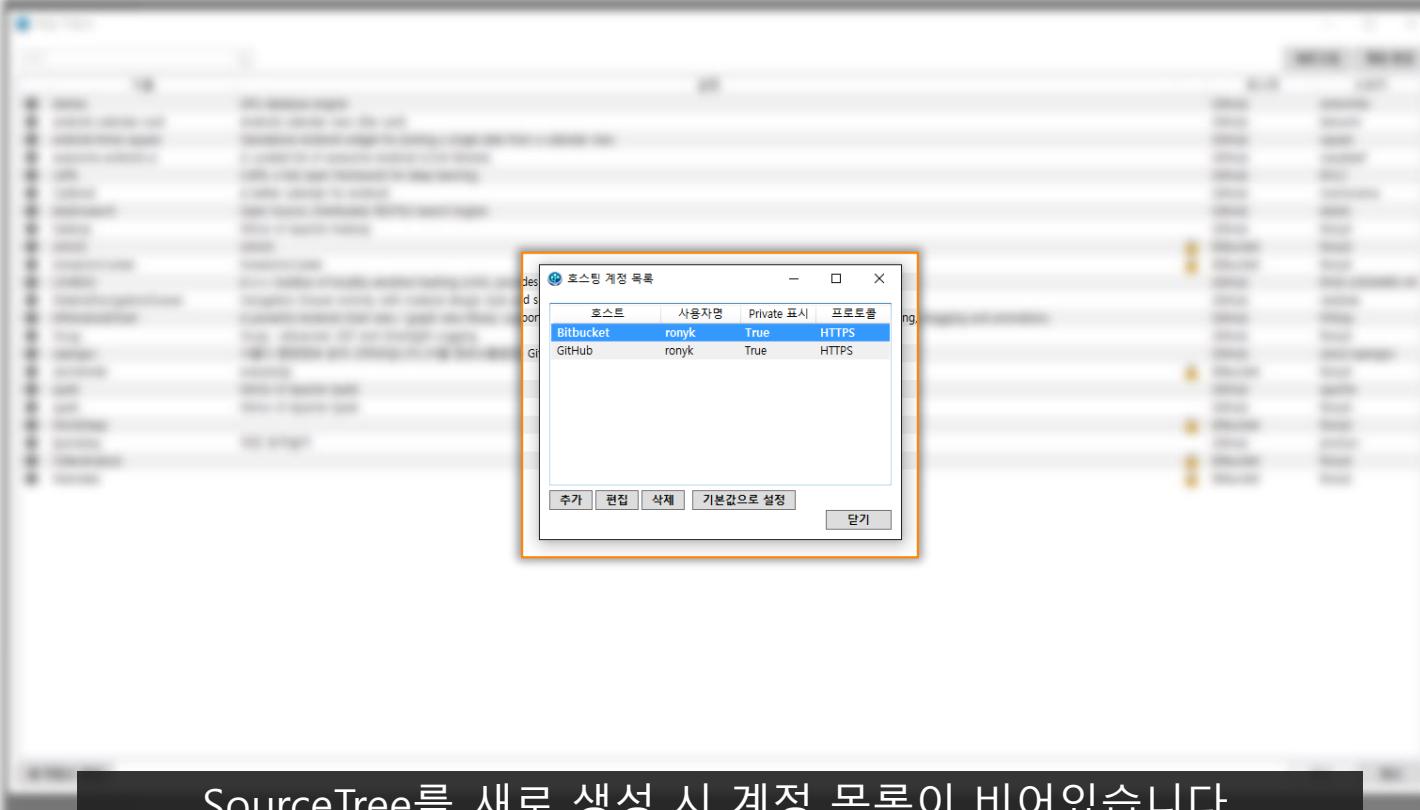
자신의 계정으로 생성한 원격 저장소 목록이 됩니다.

파일 상태 로그 / 히스토리 검색

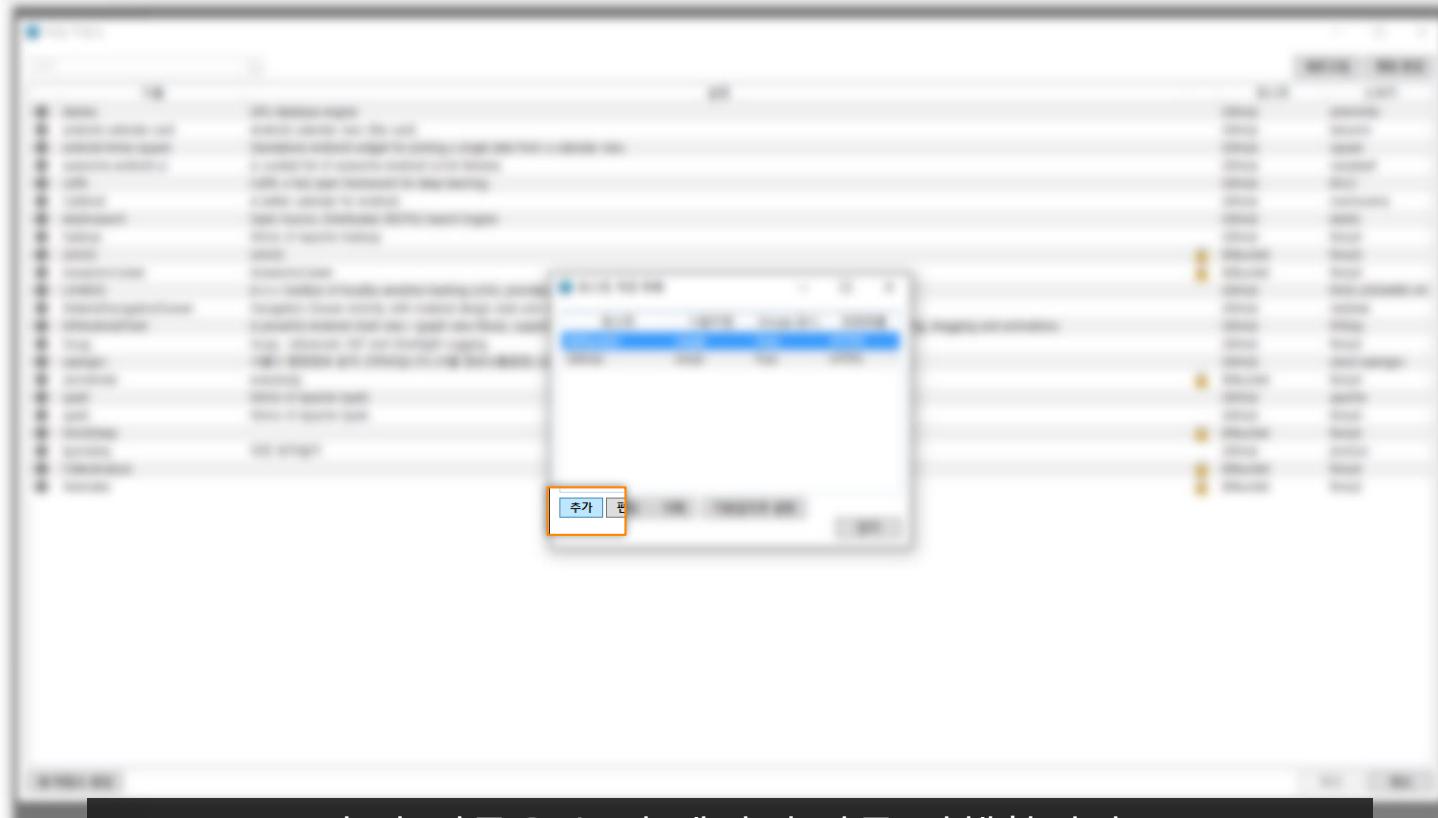
Atlassian



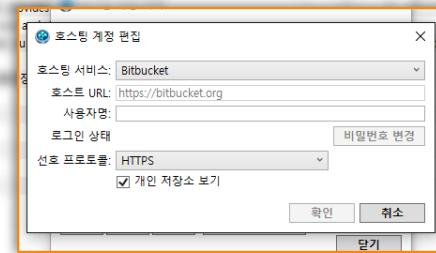
앞서 가입한 아이디를 Sourcetree에 추가하기 위해
우측 상단에 계정 변경 버튼을 클릭합니다.



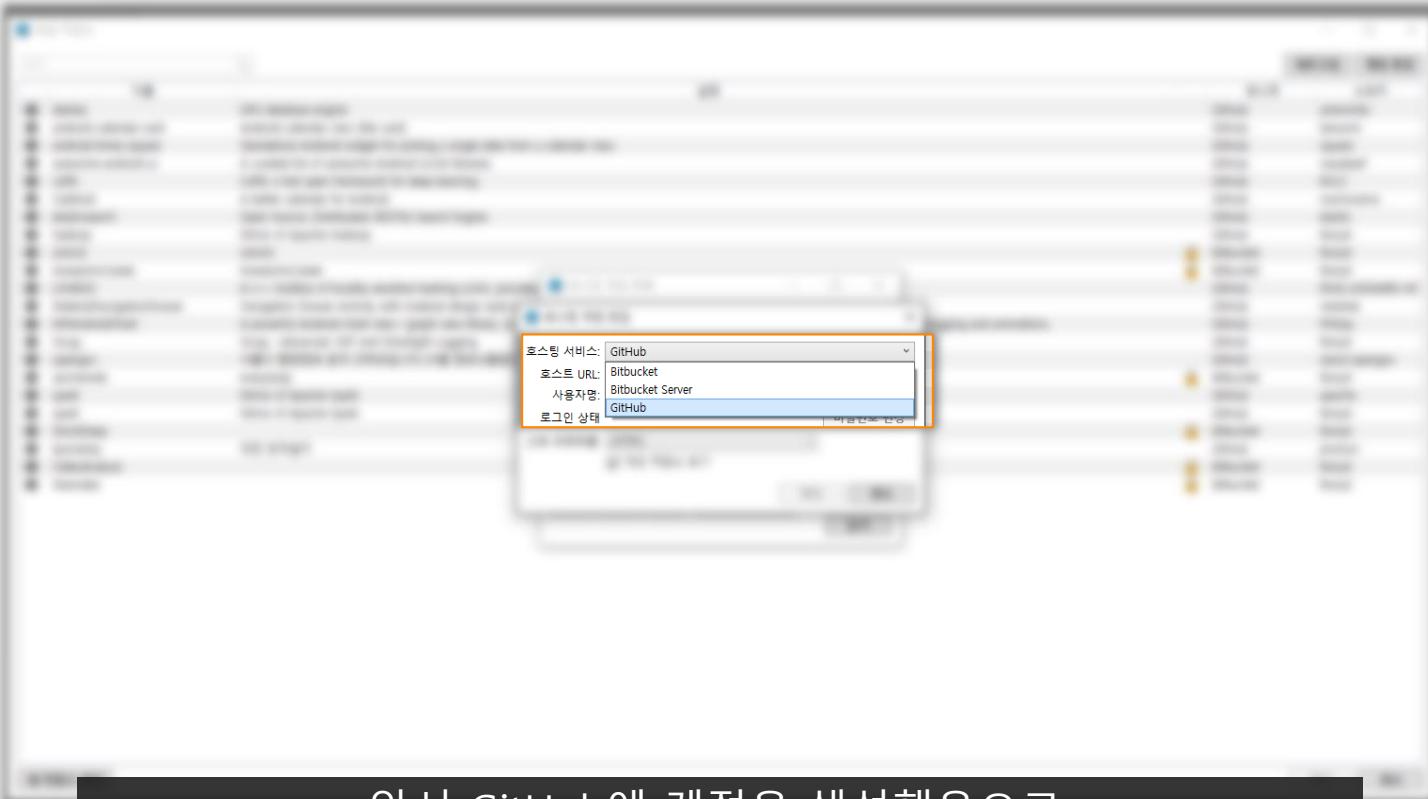
SourceTree를 새로 생성 시 계정 목록이 비어있습니다.
현재 앞서 가입한 아이디가 추가되어 있지 않습니다.



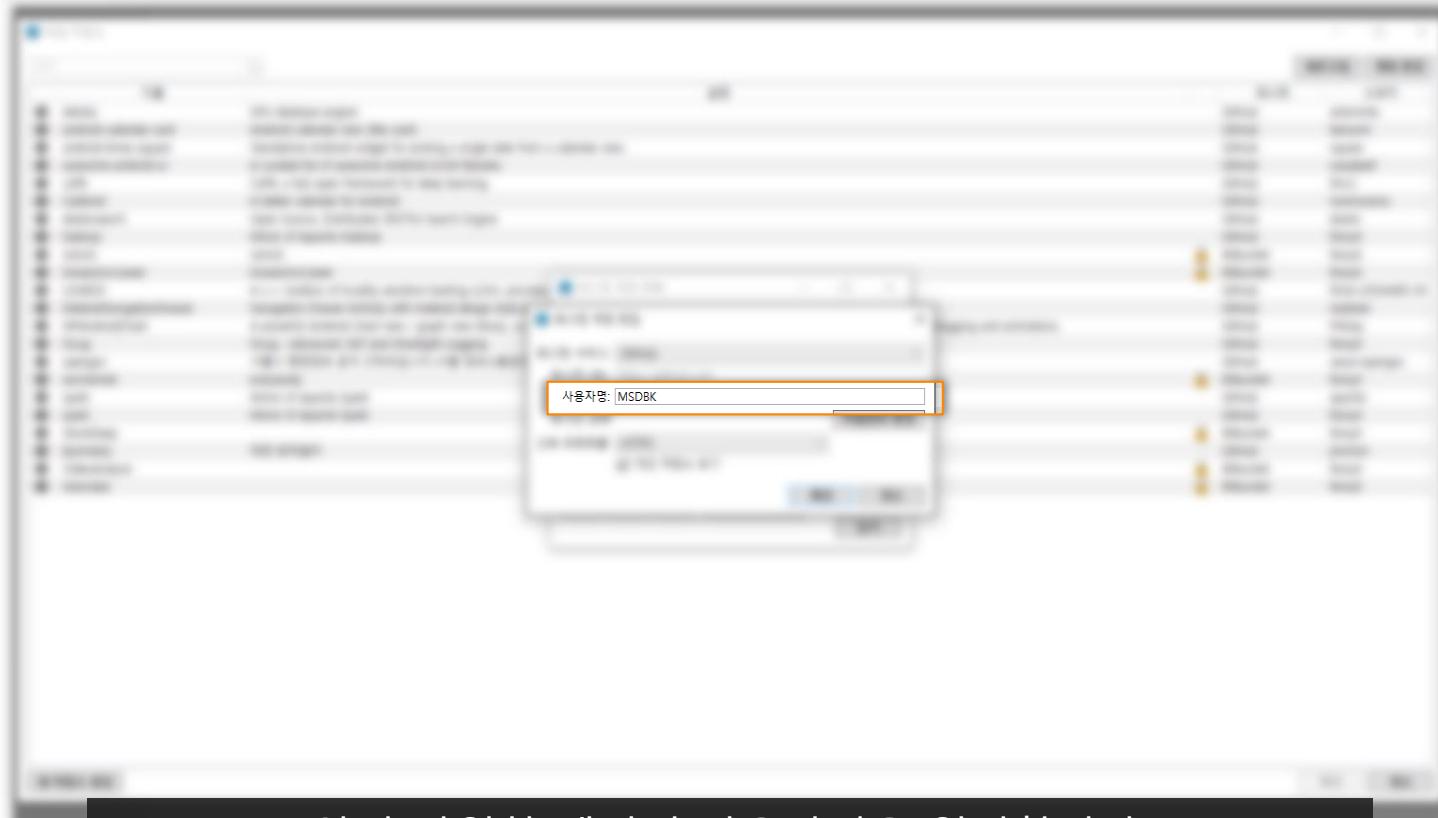
추가 버튼을 눌러 계정 추가를 진행합니다.



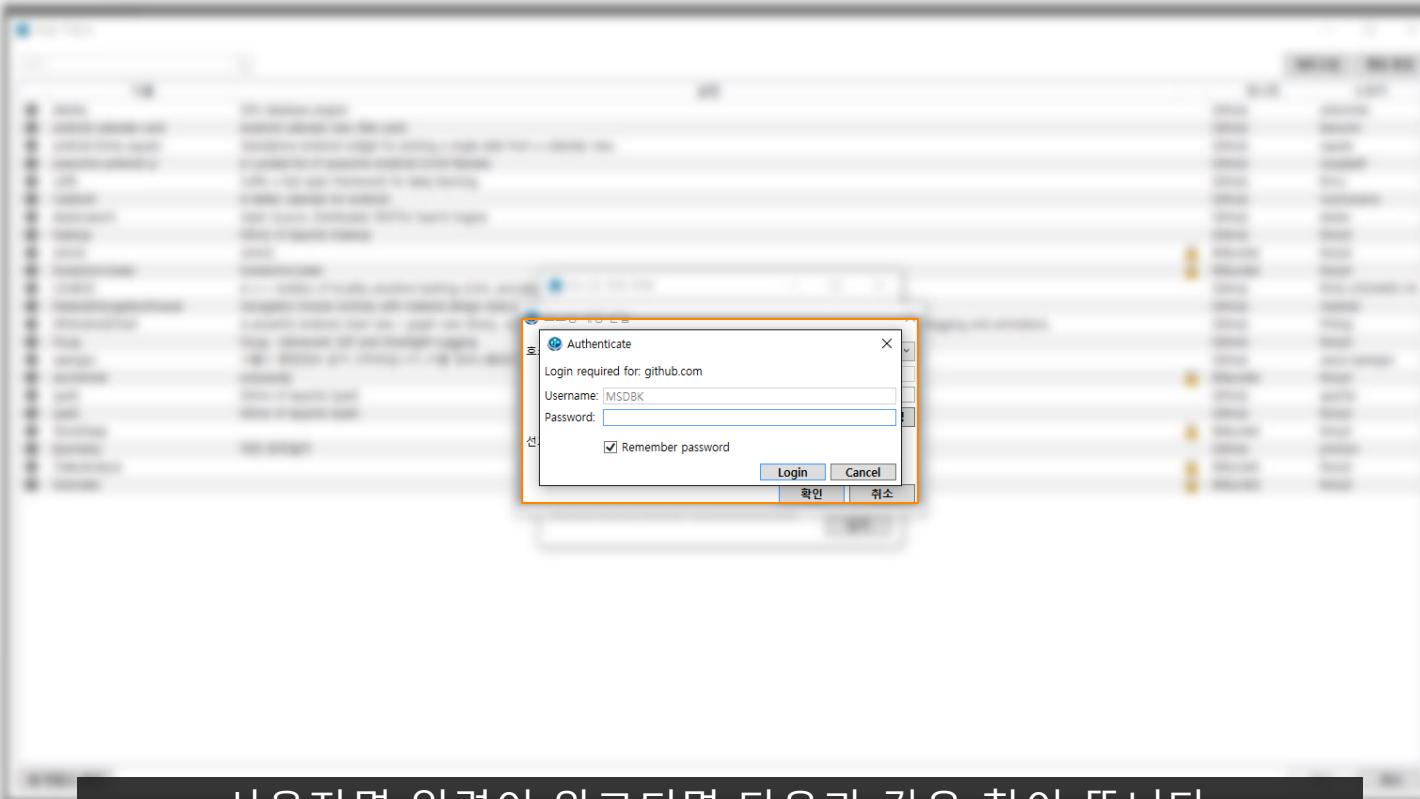
호스트 계정 편집 창이 뜹니다.



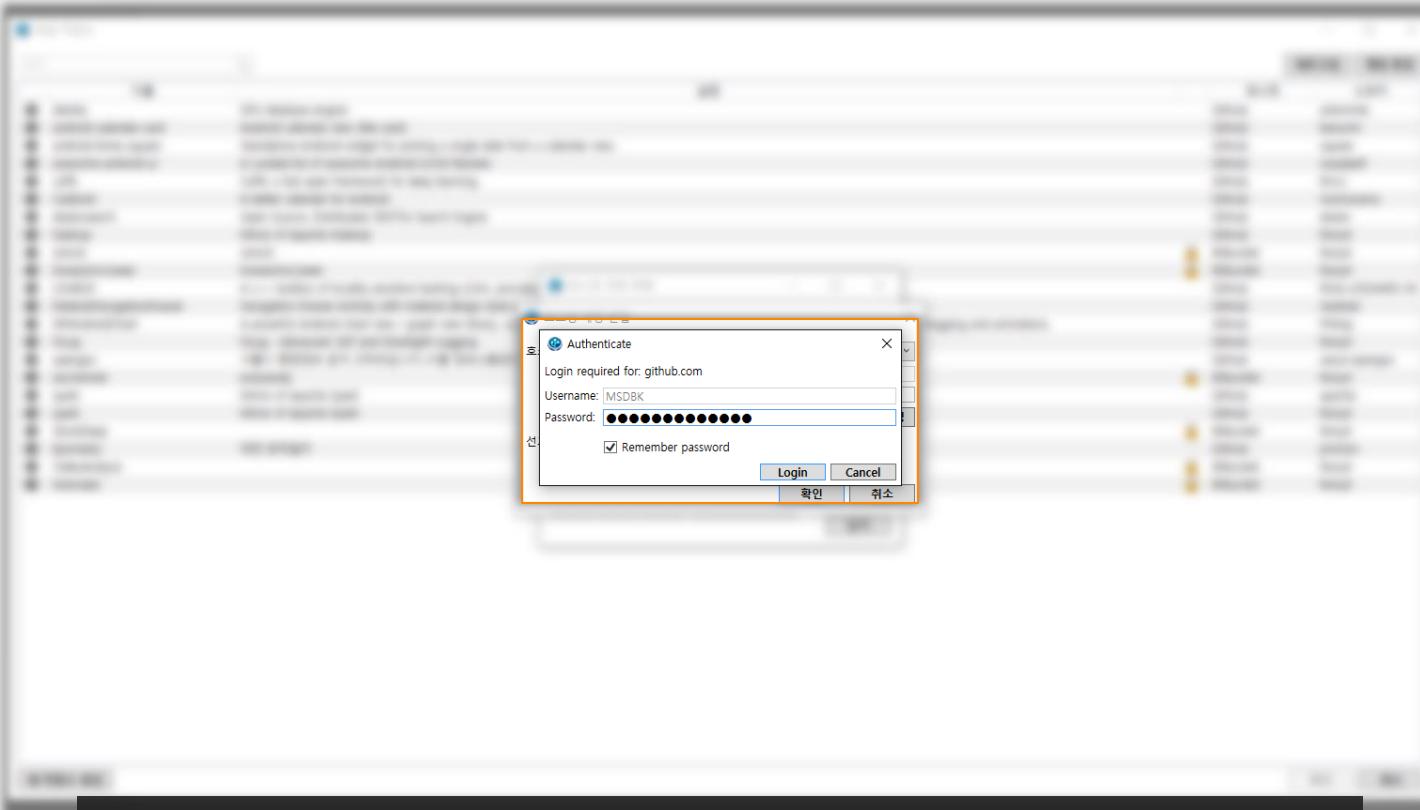
앞서 GitHub에 계정을 생성했음으로,
호스트 URL에서 GitHub를 선택합니다.



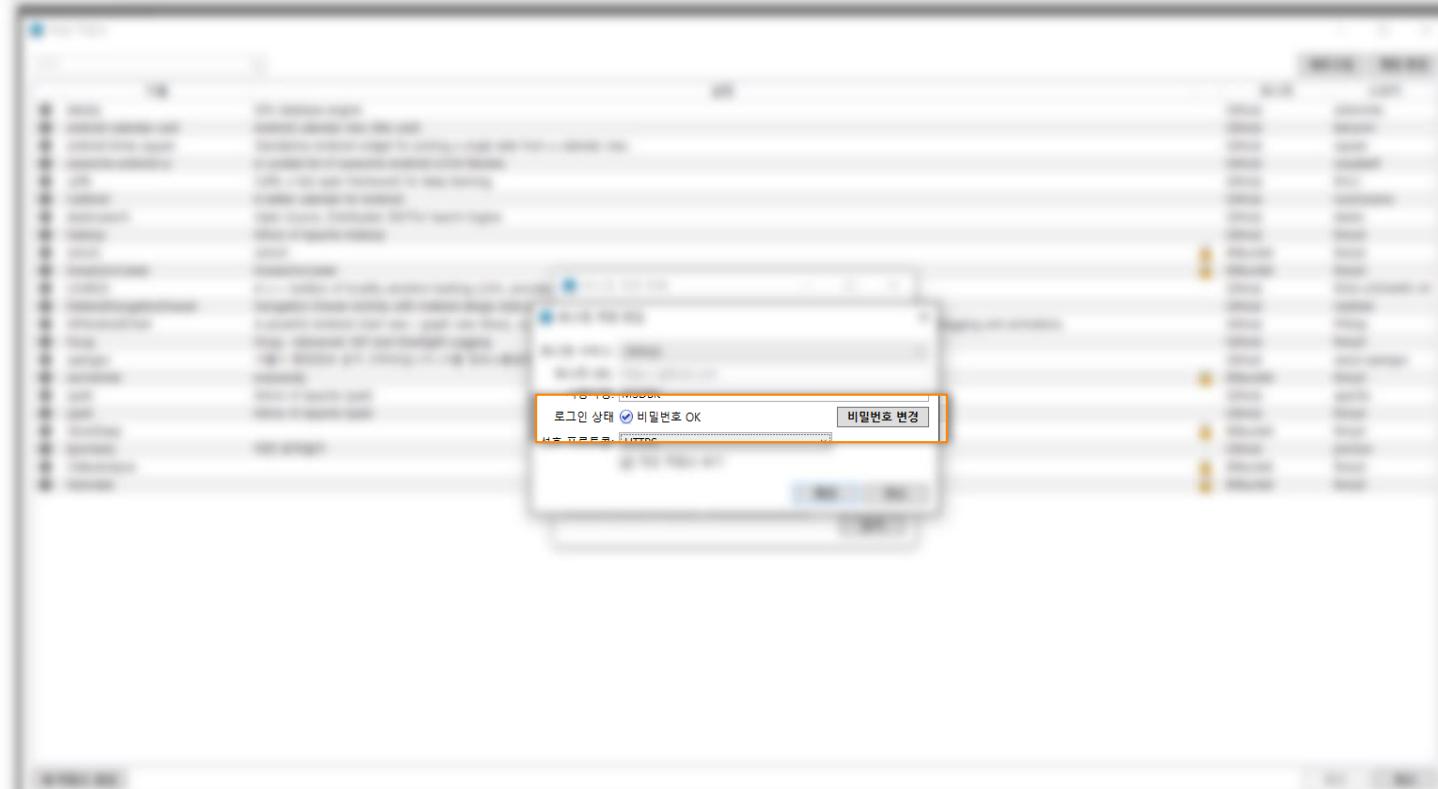
앞서 가입한 계정의 사용자명을 입력합니다.



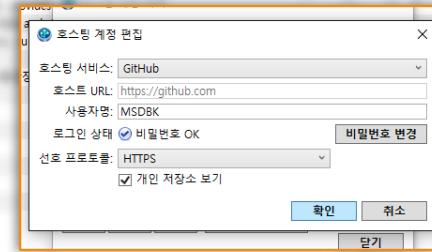
사용자명 입력이 완료되면 다음과 같은 창이 뜹니다.
하단의 Remember password 체크는 풀지 마세요.



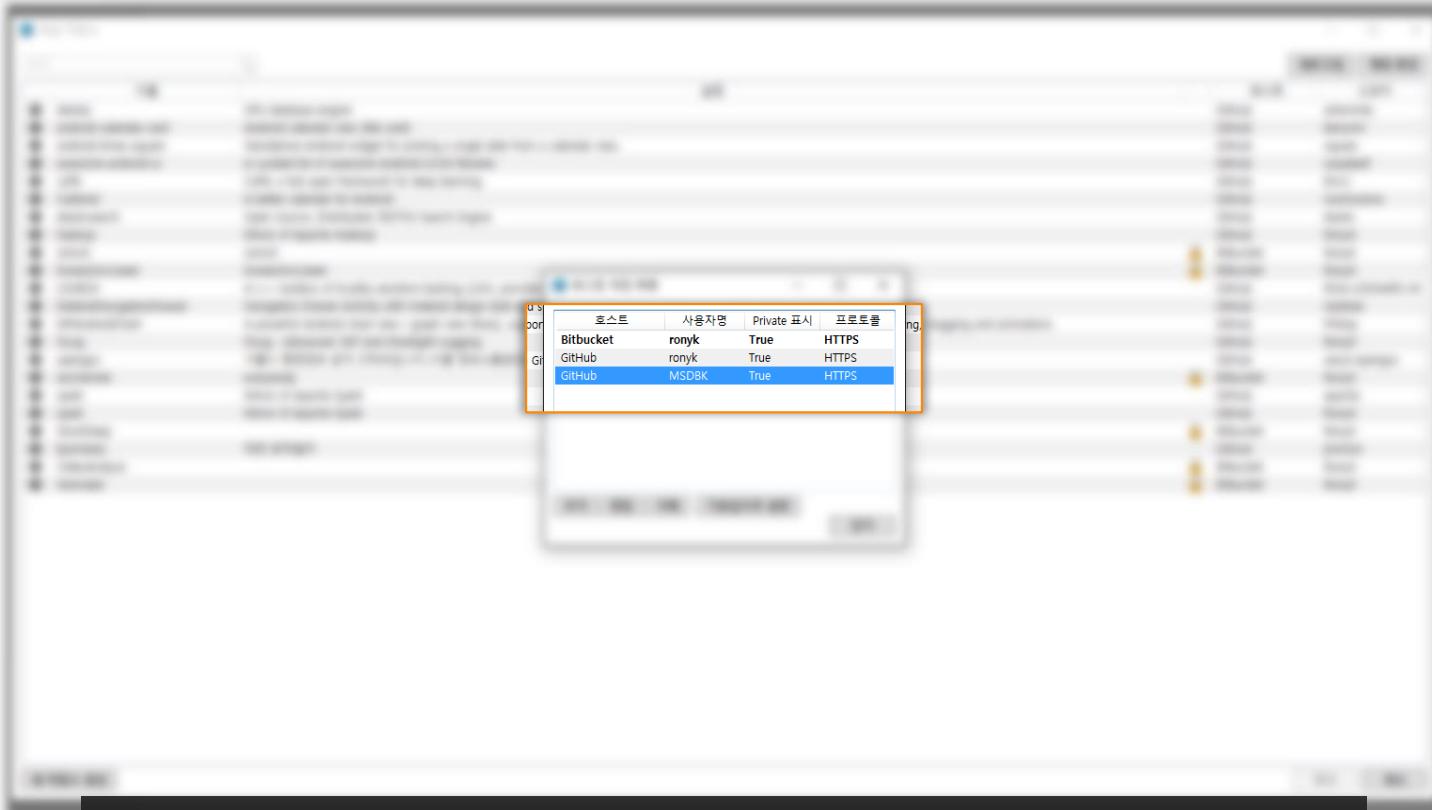
비밀번호를 입력하고 Login을 시도합니다.



로그인이 성공적으로 이루어질 경우 로그인 상태가 다음과 같이 바뀝니다.



모든 입력이 끝날 경우 확인 버튼을 눌러 계정 편집을 완료합니다.

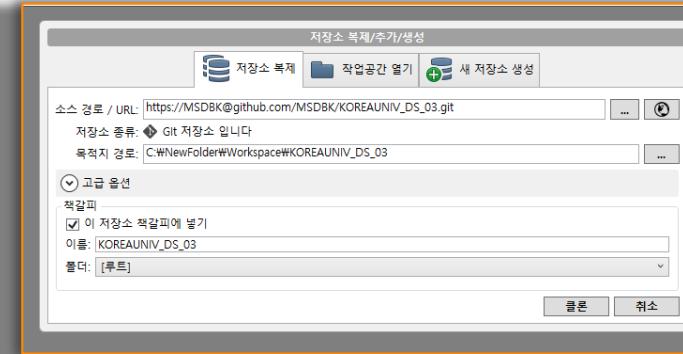


앞서 가입한 새로운 계정이 추가되었습니다.

The screenshot shows a window titled "제공 저장소" (Provided Repository) from the GitHub desktop application. The window lists several GitHub repositories with their details:

이름	설명	호스트	소유자
Alenka	GPU database engine	GitHub	antonimks
android-calendar-card	Android calendar view (like card)	GitHub	kenumir
android-times-square	Standalone Android widget for picking a single date from a calendar view.	GitHub	square
awesome-android-ui	A curated list of awesome Android UI/UX libraries	GitHub	wasabeef
cafffe	Caffe: a fast open framework for deep learning.	GitHub	BVLC
Calndroid	A better calendar for Android	GitHub	roomorama
elasticsearch	Open Source, Distributed, RESTful Search Engine	GitHub	elastic
hadoop	Mirror of Apache Hadoop	GitHub	RonyK
JoinUS	JoinUS	Bitbucket	RonyK
KOREAUNIV_DS_03	Korea Univ Data Structure 03	GitHub	MSDBK
KoreaUnivCareer	KoreaUnivCareer	Bitbucket	RonyK
LGUNIV	LGUNIV	GitHub	MSDBK

저장소 목록에서 새로고침을 눌러보면,
앞서 생성한 Git Repository가 목록에 표시됩니다.



저장소를 선택하고, 로컬 저장소 위치 등을 설정합니다.



설정이 완료되면, 클론 버튼을 클릭하여 원격 저장소를 로컬로 복제합니다.



StockDeep C:#NewFolder#Project#St
2 | develop

설정

새 저장소 생성 X

[취소]

Cloning from https://MSDBK@github.com/MSDBK/KOREAUNIV_DS_03.git to C:#NewFolder#Workspace#KOREAUNIV_DS_03

출력 전부 보기

복제가 진행됩니다. 새로운 저장소는 크기가 크지 않아 금방 완료됩니다.





StockDeep C:\#NewFolder\#Project\#StockDeep

KOREAUNIV_DS_03 C:\#NewFolder\#Project\#KOREAUNIV_DS_03

2 | develop

KOREAUNIV_DS_03 C:\#NewFolder\#Project\#KOREAUNIV_DS_03

master

파일 상태

작업 공간

브랜치

master

태그

원격

origin

대기 중인 파일, 파일 상태 순 정렬 ▾

검색

커밋할 내용 없음

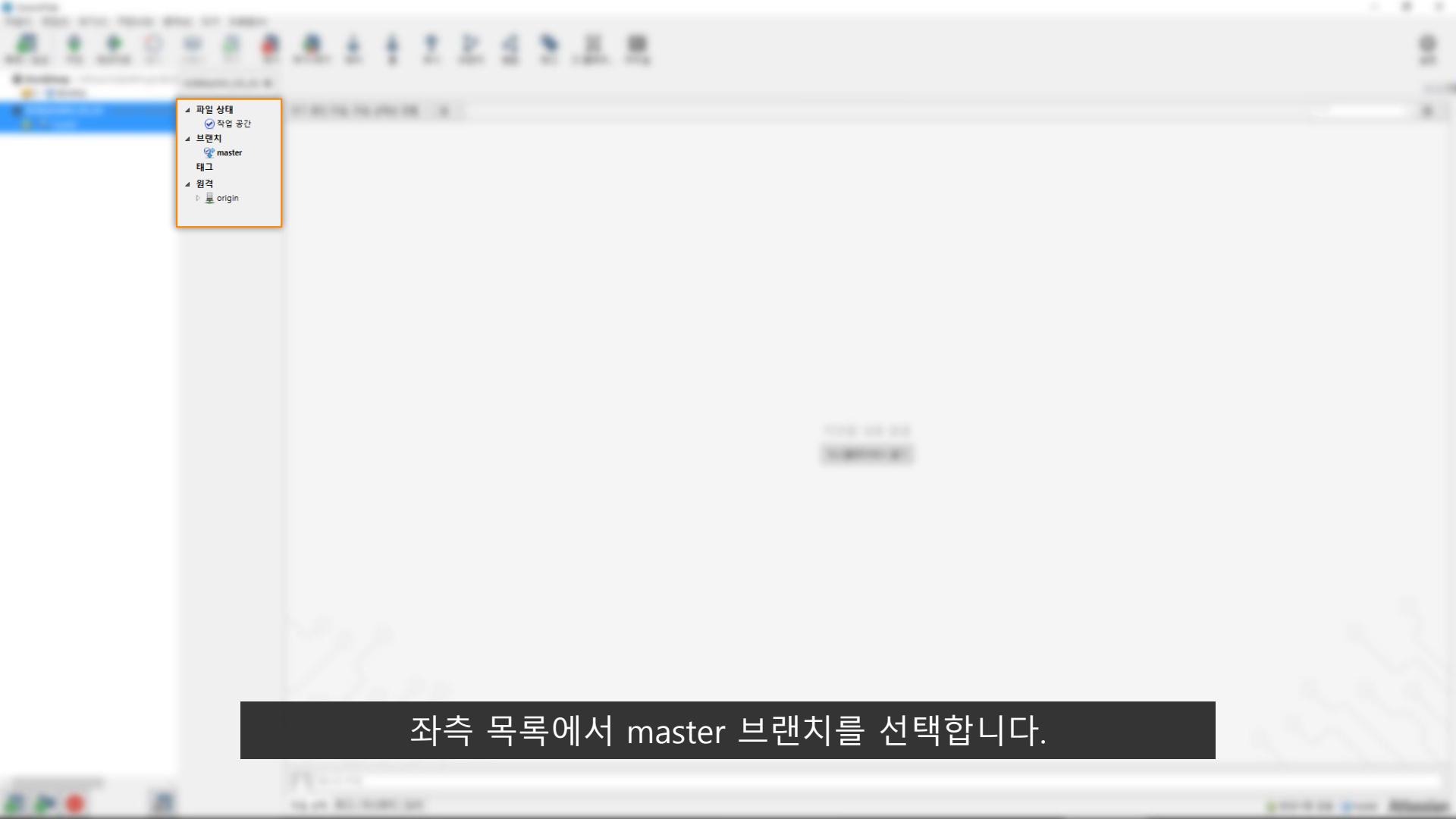
이스클로러에서 열기

축하합니다. 원격 저장소를 로컬에 복제 완료 하였습니다.

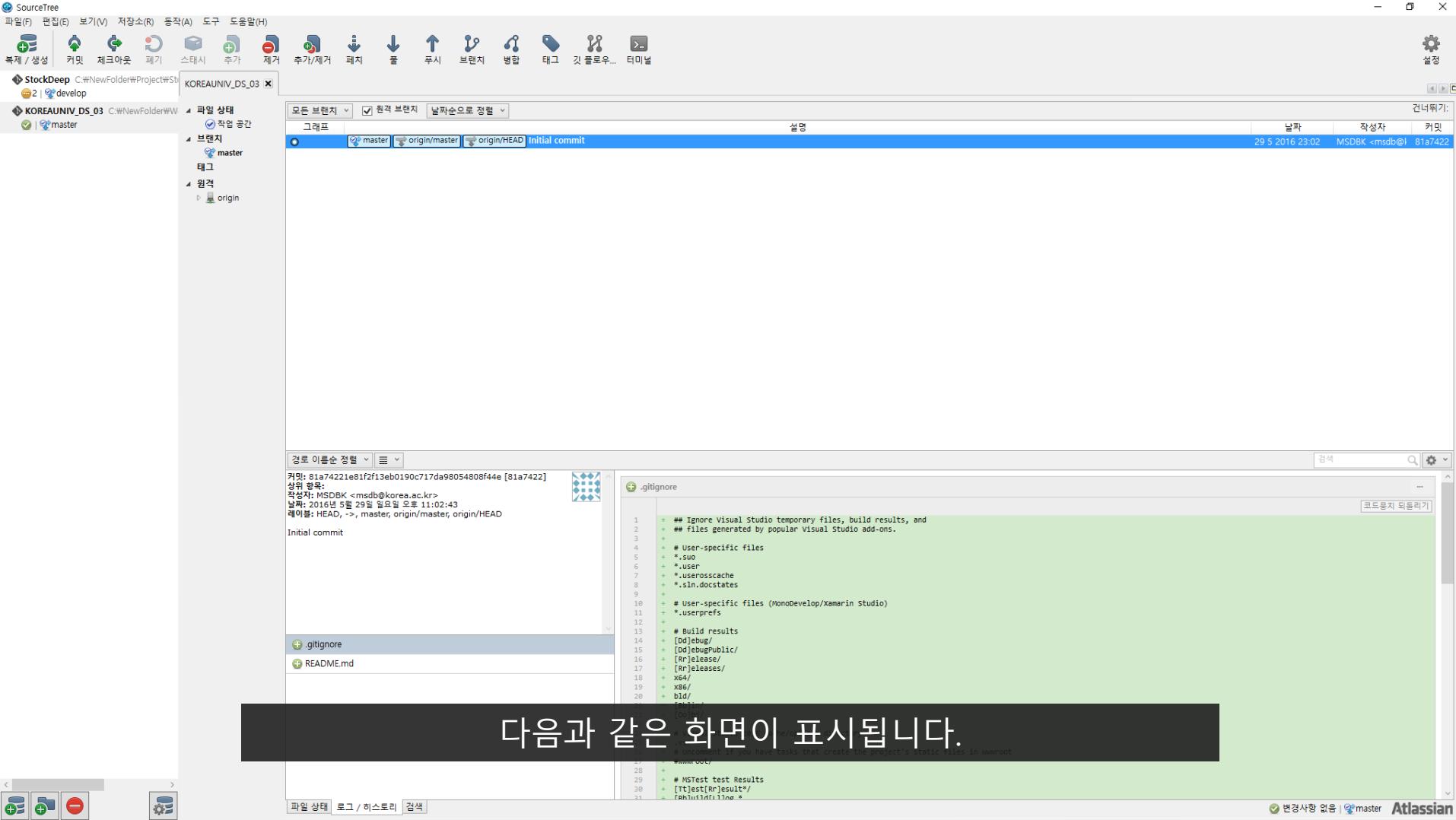


메시지 커밋

파일 상태 로그 / 히스토리 검색

- 
- 파일 상태
작업 공간
- ▶ 브랜치
master
- ▶ 태그
- ▶ 원격
origin

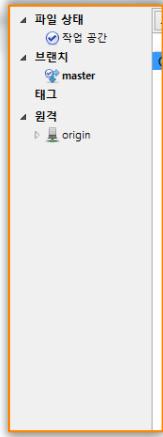
좌측 목록에서 master 브랜치를 선택합니다.



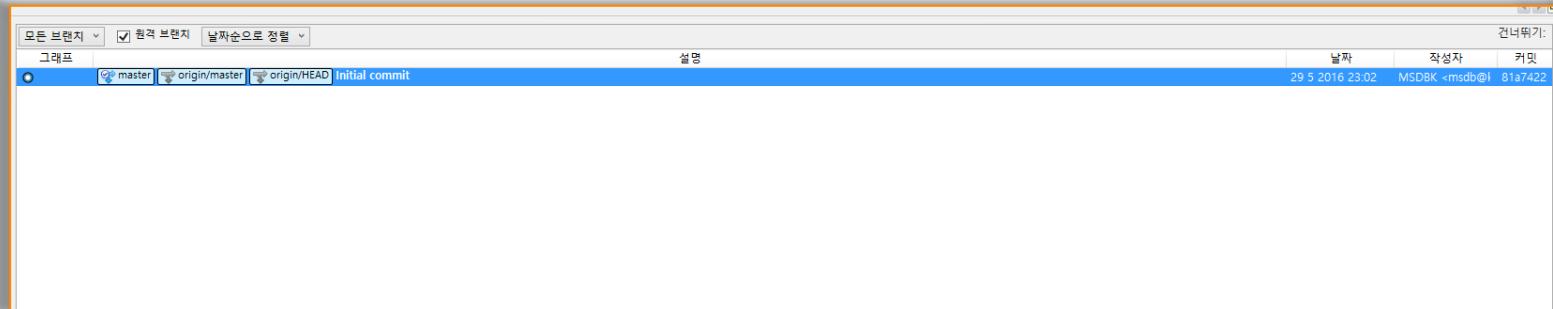
로컬 저장소 목록

StockDeep C:\#NewFolder\Project\StockDeep
2 | develop
KOREAUNIV_DS_03 C:\#NewFolder\KOREAUNIV_DS_03
| master





현재 프로젝트의
로컬 브랜치, 태그, 원격 브런치, 스태시 등



현재 프로젝트의 커밋 목록

```
상세 이동순 설정 || ⌂
커밋 81a74221e81f2f13eb0190c717da98054808f44e [81a7422]
상위 브랜치:
작성자: MSDBK <msdb@korea.ac.kr>
날짜: 2016년 5월 29일 월요일 오후 11:02:43
레이블: HEAD, ->, master, origin/master, origin/HEAD

Initial commit
```

.gitignore
README.md

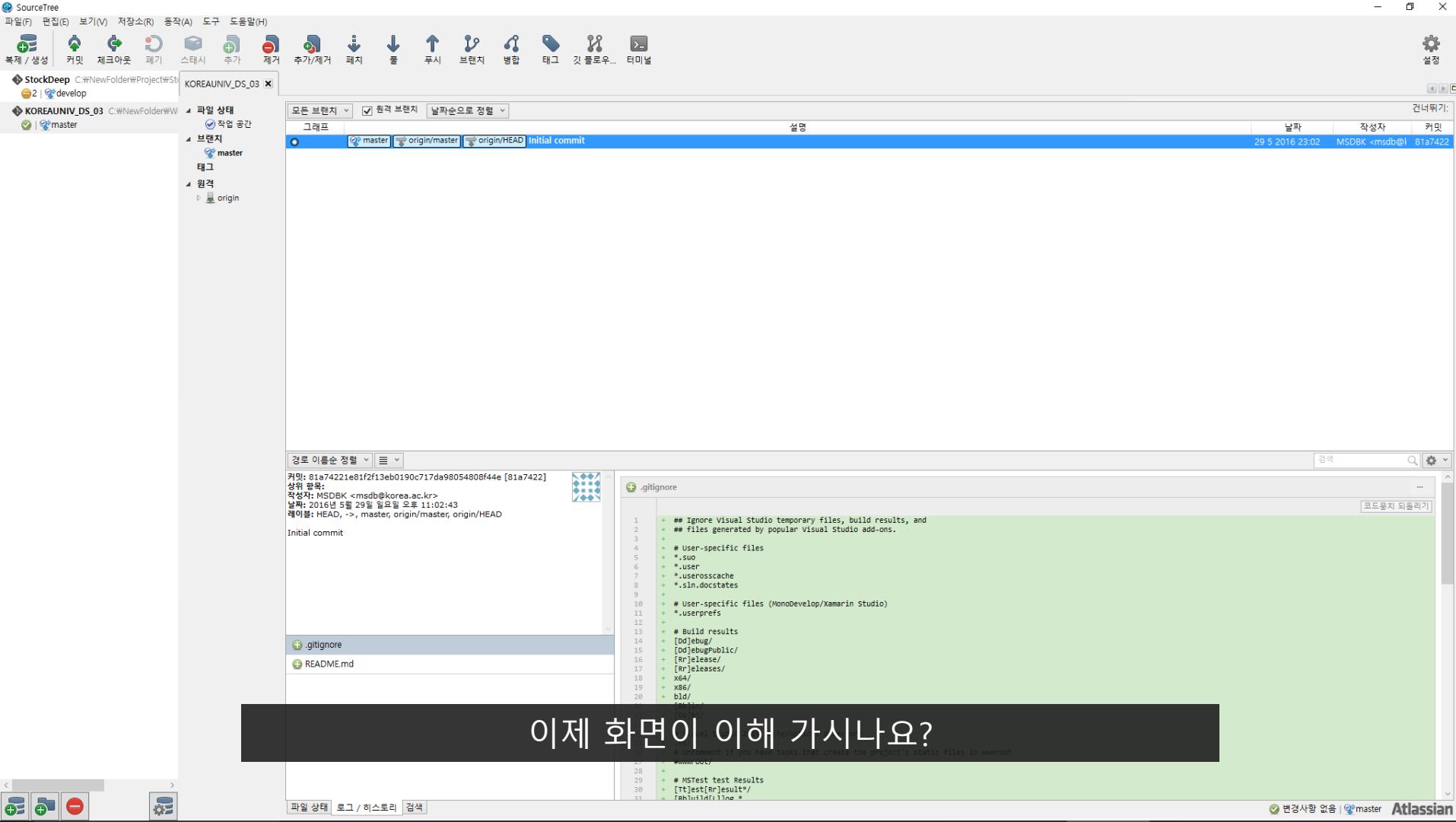
파일 상태 | 로그 / 히스토리 | 검색 |

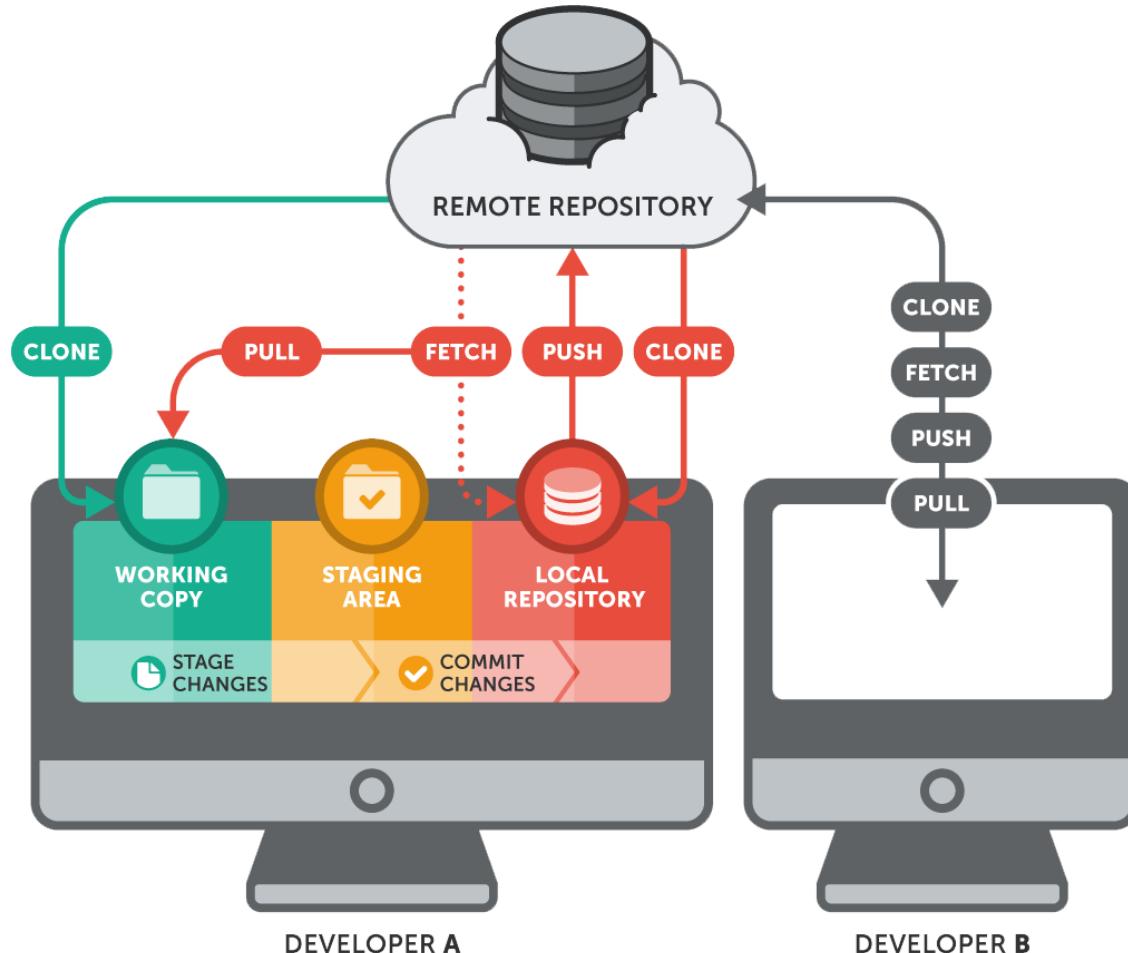
커밋 내용

수정된 파일 목록

파일 내 수정 내용

```
gitignore
1  ## Ignore Visual Studio temporary files, build results, and
2  ## files generated by popular Visual Studio add-ons.
3
4  # User-specific files
5  *.suo
6  *.user
7  *.userosscache
8  *.sln.docstates
9
10 # User-specific files (MonoDevelop/Xamarin Studio)
11 *.userprefs
12
13 # Build results
14 [D]ebug/
15 [D]ebugPublic/
16 [R]elease/
17 [R]eleases/
18 x64/
19 x86/
20 bld/
21 [B]b1n/
22 [O]bj/
23
24 # visual studio 2015 cache/options directory
25 .vs/
26 # Uncomment if you have tasks that create the project's static files in wwwroot
27 #wwwroot/
28
29 # MSTest test Results
30 [T]est[R]esult*/
31 [T]est[R]esult*/lno *
```

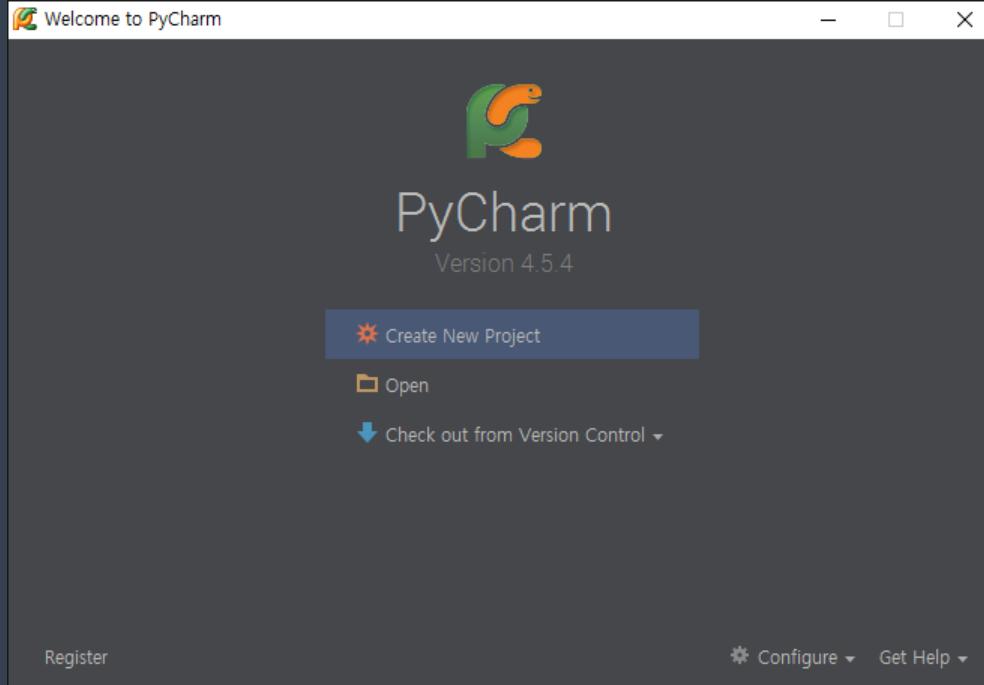




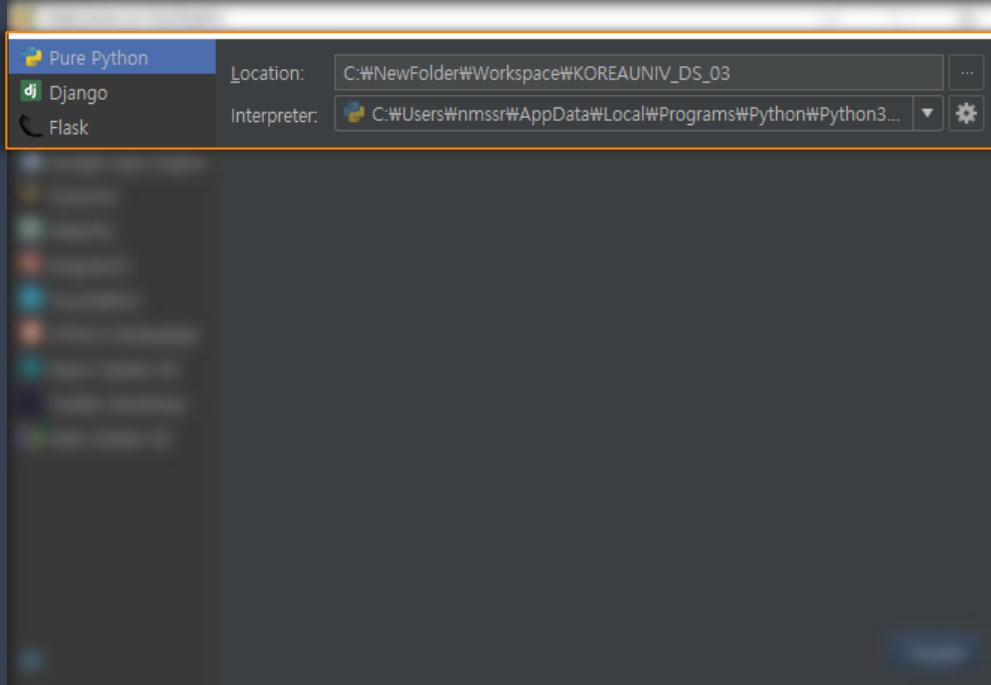
Using Git with SourceTree(2)

Start Commit !





프로젝트를 시작하기 위해 IDE를 캡니다.
본 예제에서는 PyCharm에서 Python 프로젝트를 생성합니다.



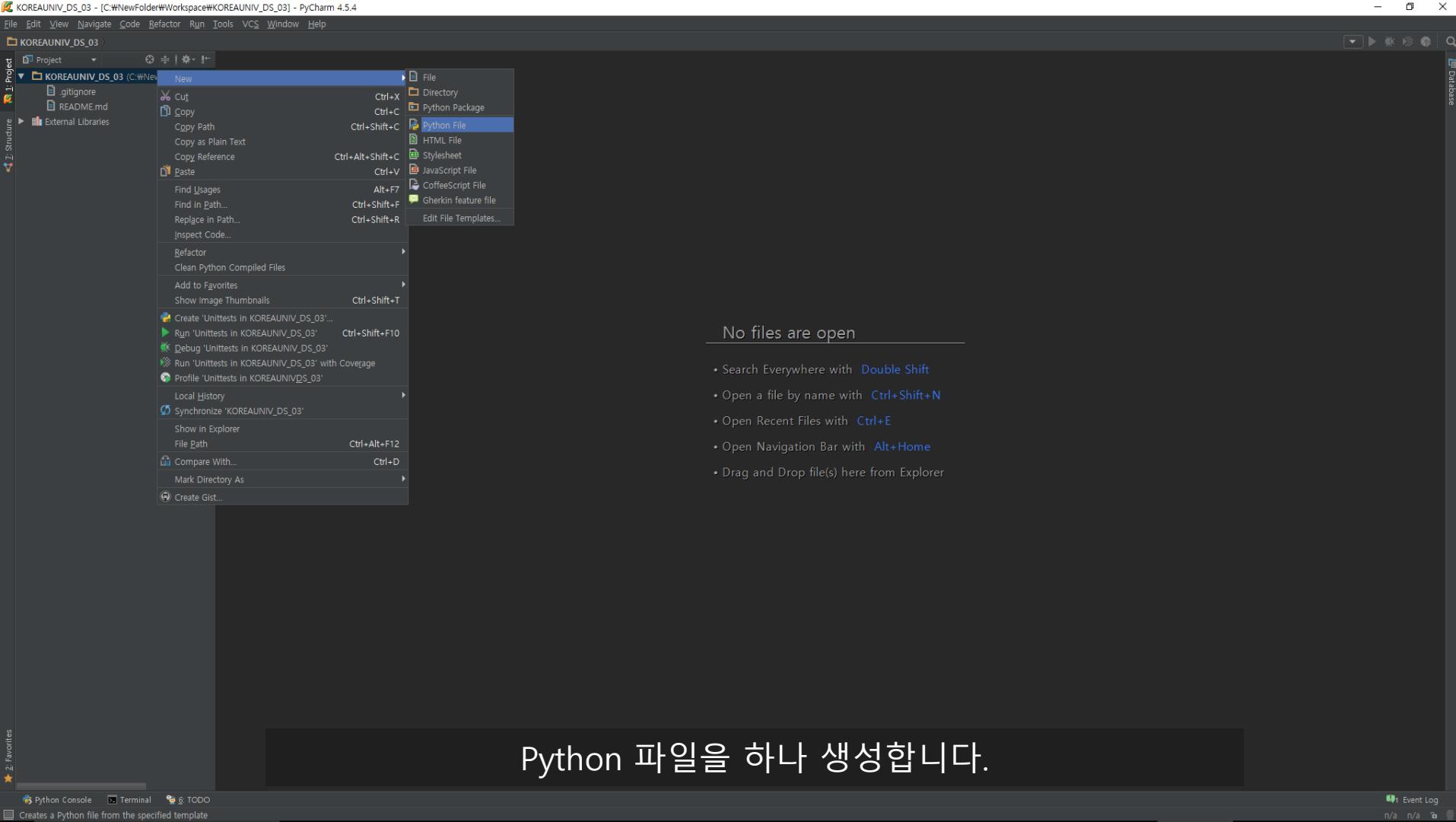
프로젝트의 경로는 Git Repository를 복사한 폴더로 지정합니다.

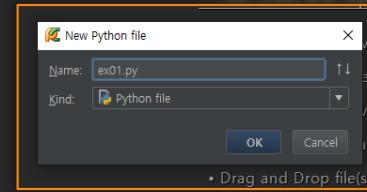


No files are open

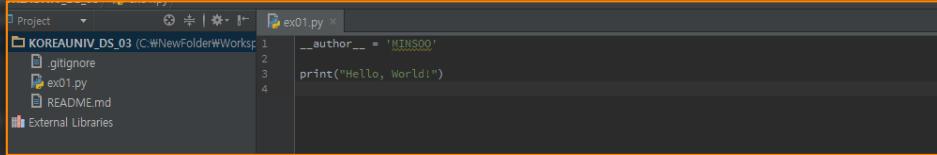
- Search Everywhere with [Double Shift](#)
- Open a file by name with [Ctrl+Shift+N](#)
- Open Recent Files with [Ctrl+E](#)
- Open Navigation Bar with [Alt+Home](#)
- Drag and Drop file(s) here from Explorer

프로젝트 생성이 완료 되었습니다.



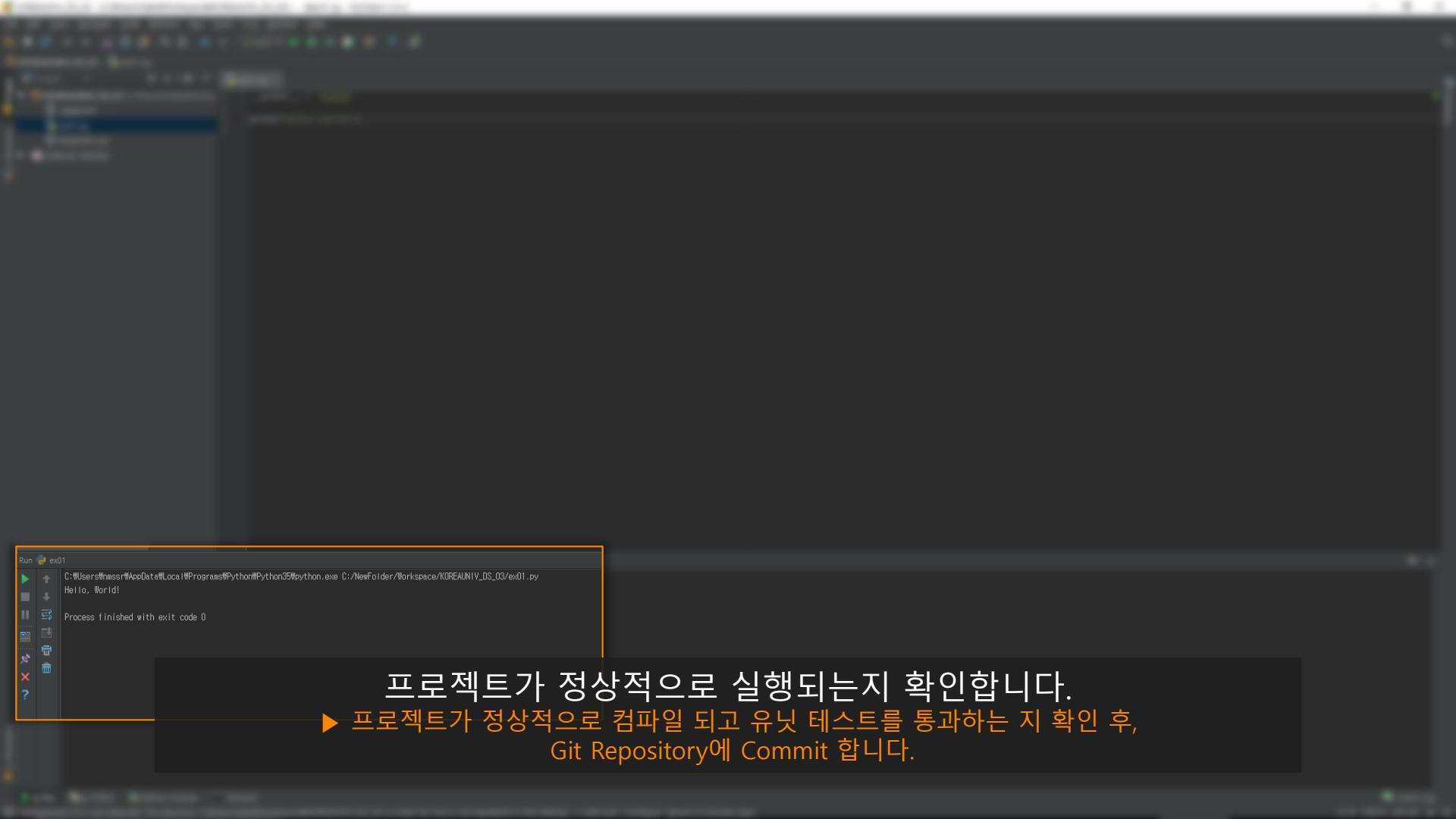


이름은 일단 간단히 ex01.py

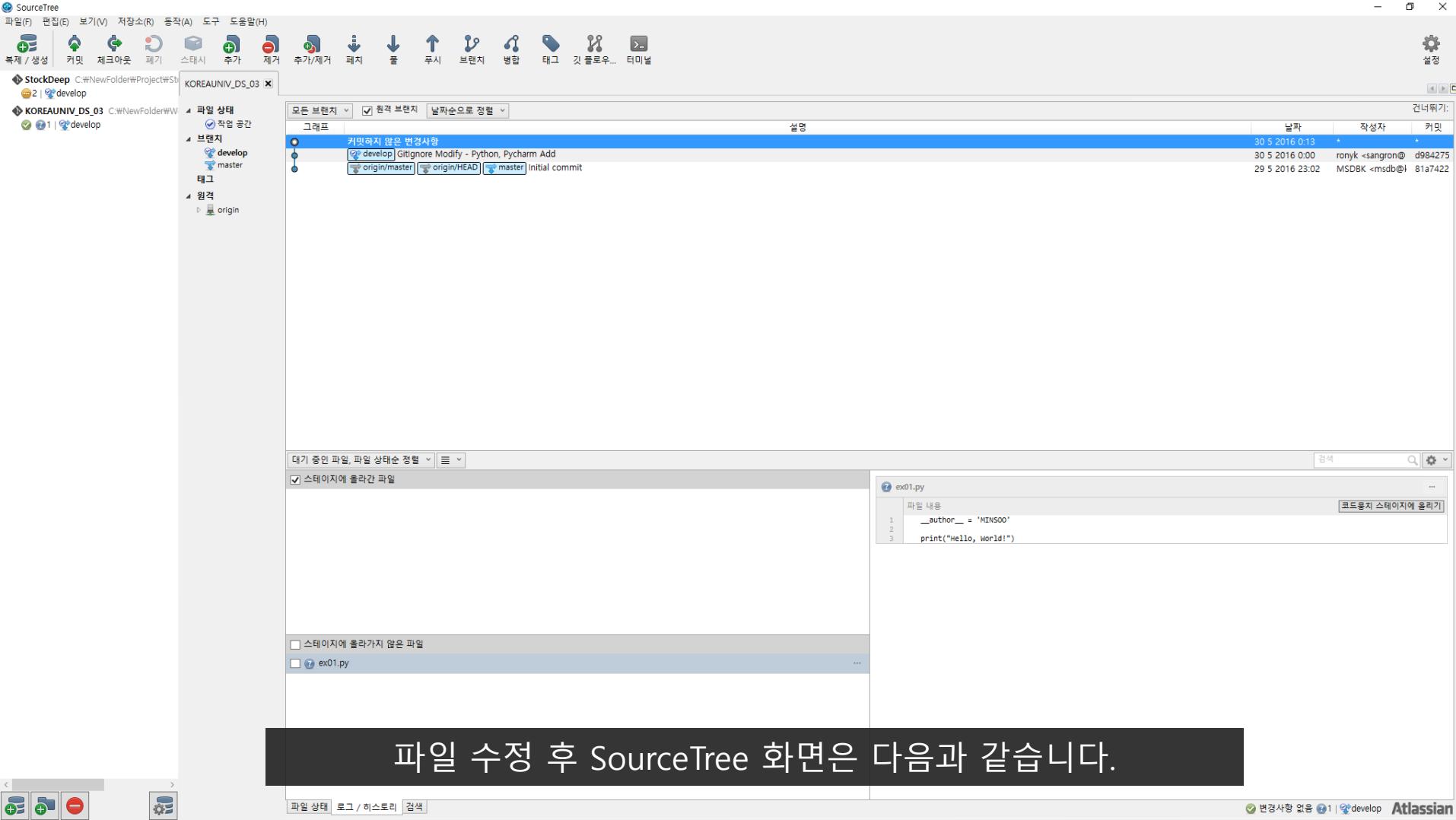


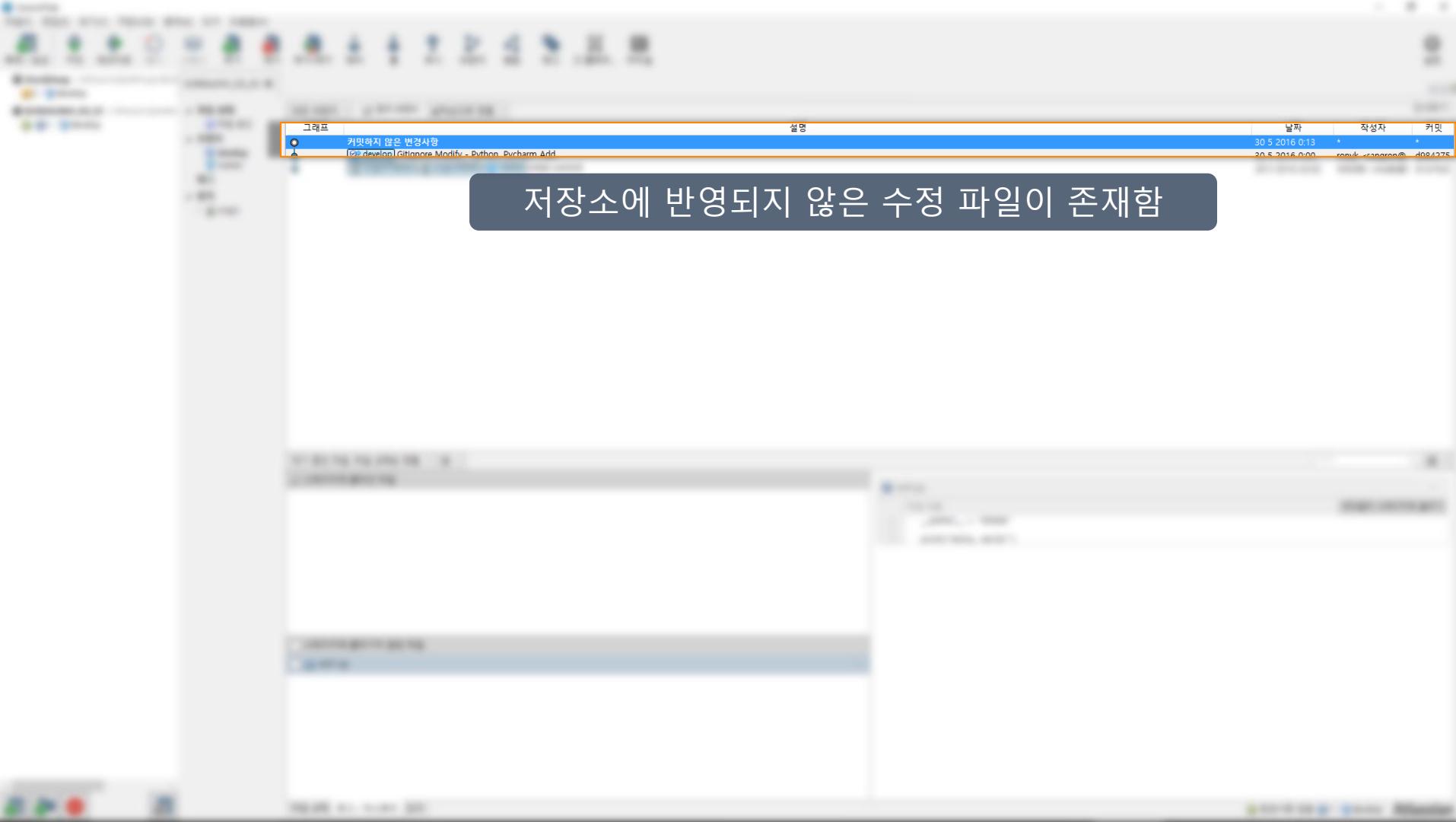
```
_author__ = 'MINSOO'  
print("Hello, World!")
```

생성된 파일에 코드를 작성하고,



▶ 프로젝트가 정상적으로 실행되는지 확인합니다.
▶ 프로젝트가 정상적으로 컴파일 되고 유닛 테스트를 통과하는지 확인 후,
Git Repository에 Commit 합니다.





저장소에 반영되지 않은 수정 파일이 존재함

커밋하지 않은 변경사항
(local development/Gitignore.Modify - Python, Pycharm.Add)

설명

날짜	작성자	커밋
30.5.2016 0:13	*	*
30.5.2016 0:00	roonyk_ksangwon@...	209475

Working Copy

Your Project's Files



Git watches tracked files
for new local modifications...

Tracked (and modified)



If a file was modified since it was last committed, you can stage & commit these changes



Changes that are **not staged** will not be committed & remain as local changes until you stage & commit or discard them

Untracked



If a file was modified since it was last committed, you can stage & commit these changes

Staging Area

Your Project's Files



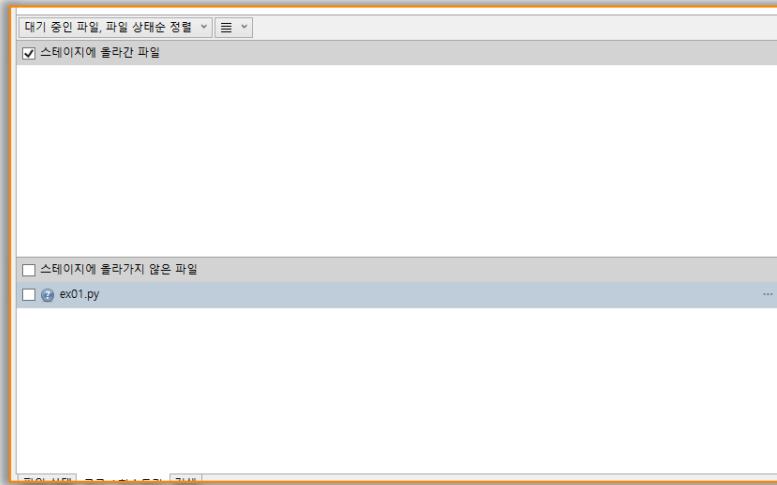
Changes that were added to the Staging Area will be included in the next commit

Local Repository

Your Project's Files



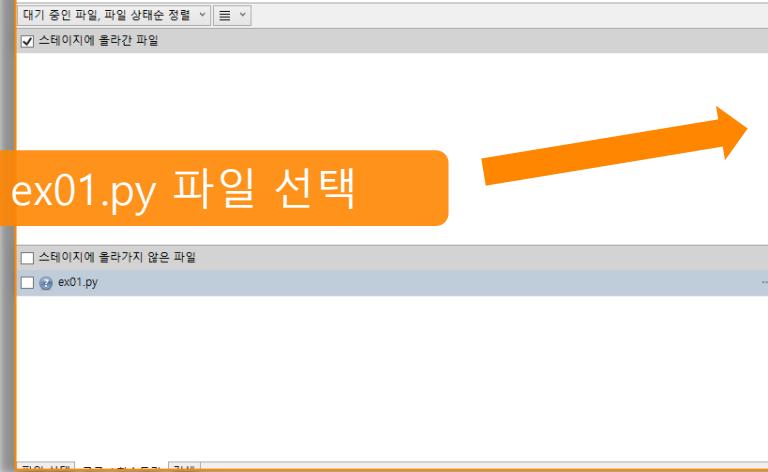
All changes contained in a commit are saved in the local repository as a new revision



저장소에 수정을 반영 할
파일 목록

수정이 일어났으나,
커밋에 반영하지 않을 파일 목록

선택 된 파일에서 일어난
수정 내용



대기 중인 파일, 파일 상태순 정렬 ▾ | ⌂ ▾
 스테이지에 올라간 파일

ex01.py

```
파일 내용
1 __author__ = 'MINSOO'
2
3 print("Hello, World!")
```

코드문서 스테이지에 올리기

ex01.py 파일 선택

스테이지에 올라가지 않은 파일
 ex01.py

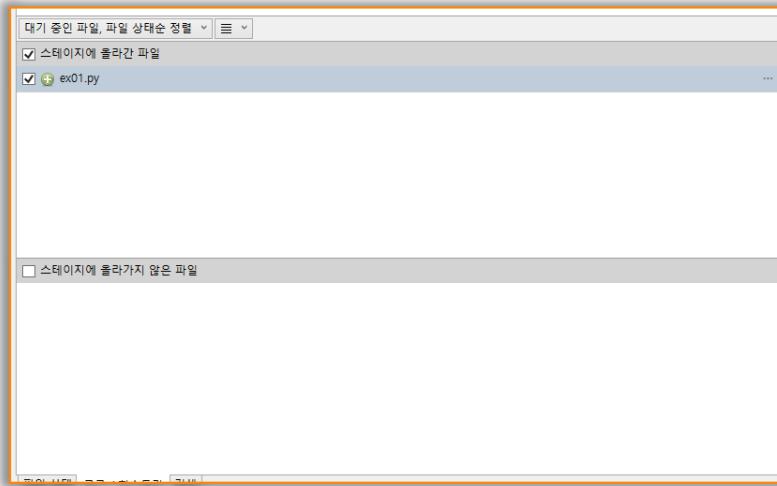
...
Hello, World!

...
Hello, World!

수정 된 내용을 반영하기 위해
스테이지에 올라가지 않은 파일 목록에서
수정이 일어난 파일을 체크합니다.

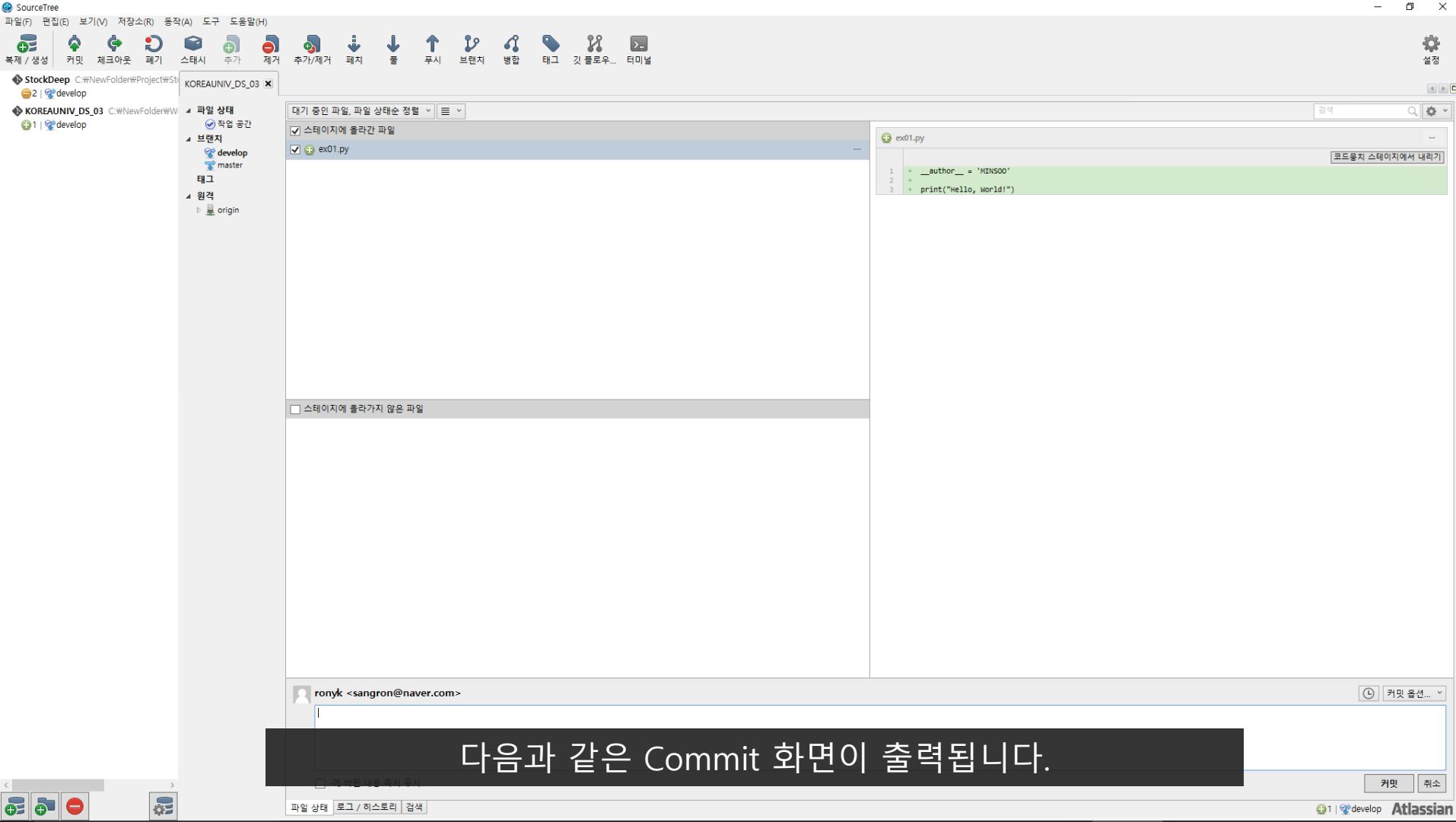
- 스테이지에 올라가지 않은 파일
- ex01.py

체크한 파일은 상단 스테이지에 올라간 파일 목록에 표시됩니다.





이제 수정 내용을 로컬 저장소에 반영하기 위해
커밋 버튼을 눌러 커밋을 진행합니다.



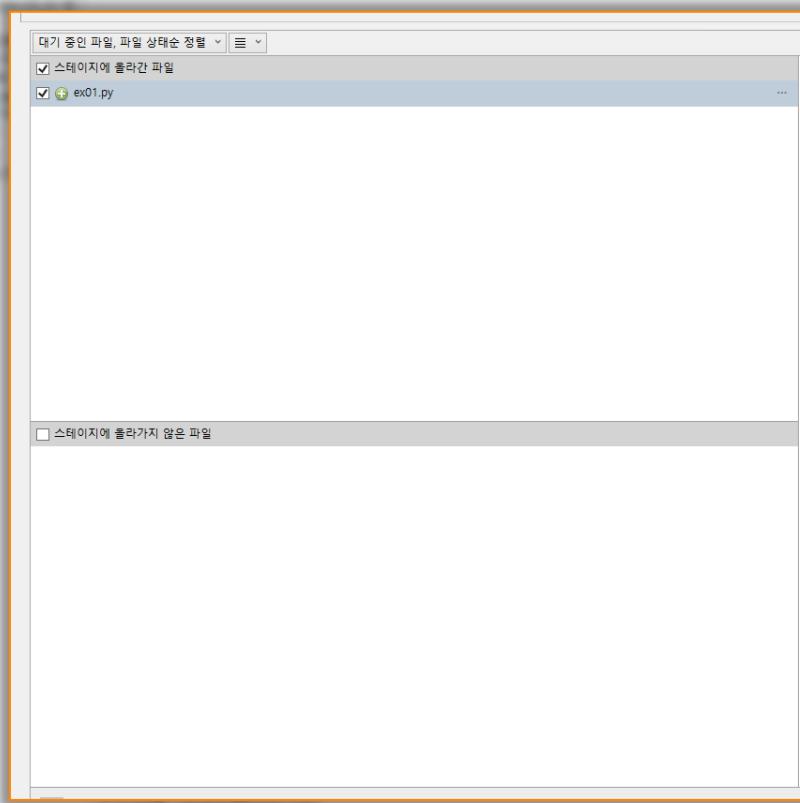
다음과 같은 Commit 화면이 출력됩니다.

커밋

취소



Atlassian



Commit에 수정을 반영 할
파일 목록

수정이 일어났으나,
Commit에 반영하지 않을 파일 목록

Commit 내용에 대한 설명

ronyk <sangron@naver.com>

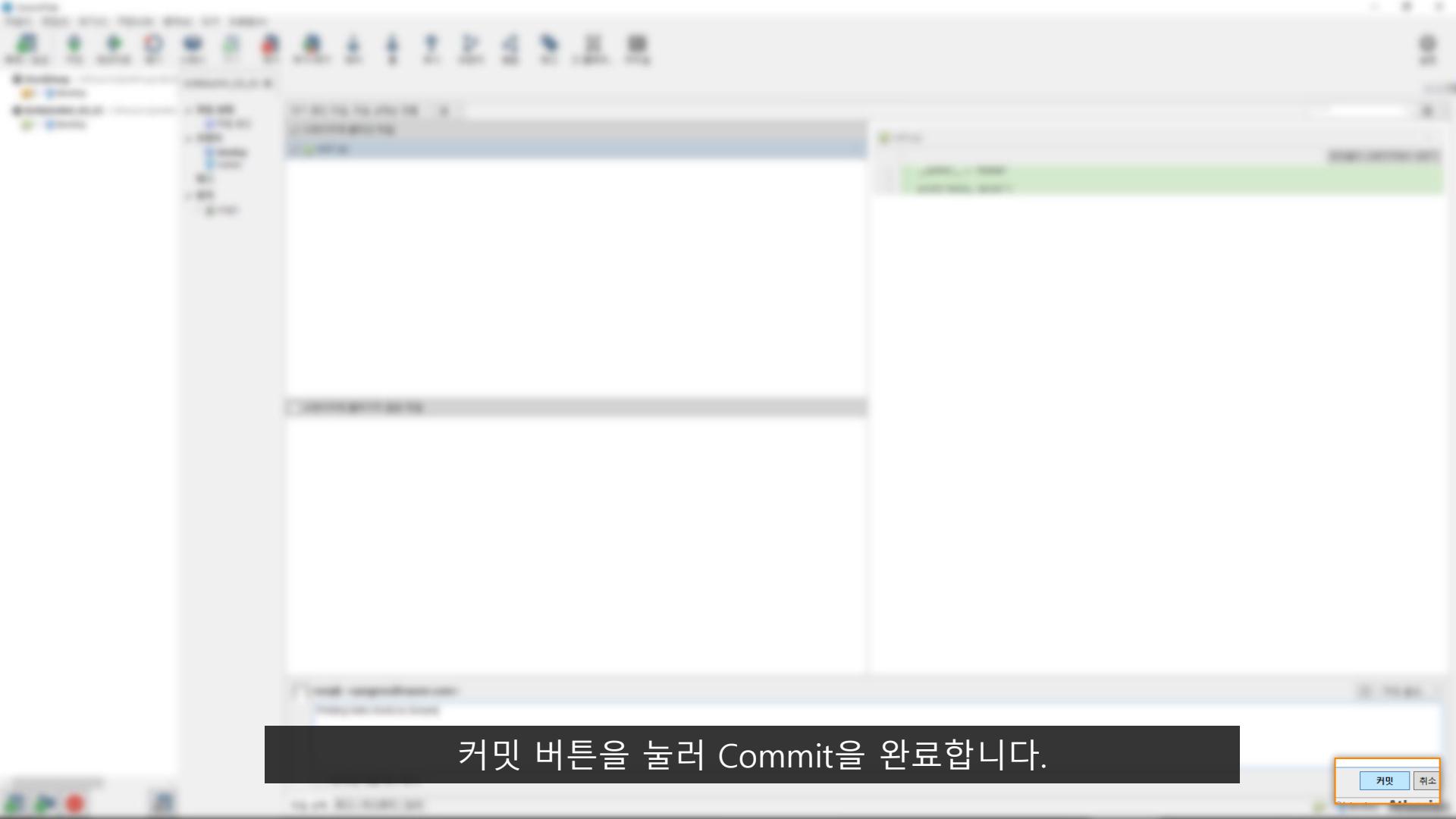
-에 바뀐 내용 즉시 주시

커밋 취소

해당 Commit에 대한 간단한 설명을 작성합니다.

A screenshot of a GitHub commit dialog box. The dialog has an orange border and contains the following elements:

- Author: ronyk <sangron@naver.com>
- Message: Printing Hello World on Screen
- Checkboxes:
 - 에 바뀐 내용 즉시 푸시
- Buttons: 커밋 (Commit) and 취소 (Cancel)



커밋 버튼을 눌러 Commit을 완료합니다.

커밋

취소

SourceTree

파일(F) 편집(E) 보기(V) 저장소(R) 동작(A) 도구 도움말(H)

복제 / 생성 커밋 체크아웃 폐기 스테시 추가 제거 추가/제거 폐지 둘 푸시 브랜치 병합 태그 깃 플로우... 터미널 설정

StockDeep C:\NewFolder\Project\#StockDeep

KOREAUNIV_DS_03 C:\NewFolder\#KOREAUNIV_DS_03

모든 브랜치 원격 브랜치 날짜순으로 정렬

브랜치

- develop Printing Hello World on Screen
- master Gitignore Modify - Python, Pycharm Add
- origin/master origin/HEAD master initial commit

설명 날짜 작성자 커밋

날짜	작성자	커밋
30 5 2016 0:28	ronyk <sangron@naver.com>	45cbae2
30 5 2016 0:00	ronyk <sangron@naver.com>	d984275
29 5 2016 23:02	MSDBK <msdb@laptop>	81a7422

경로 이름순 정렬

커밋: 45cbae28d6783cd31999d83ced54cc32a54265 [45cbae2]
상위 블록: 45949752
작성자: ronyk <sangron@naver.com>
날짜: 2016년 5월 30일 토요일 오후 12:28:28
레이블: HEAD, -, develop

Printing Hello World on Screen

ex01.py

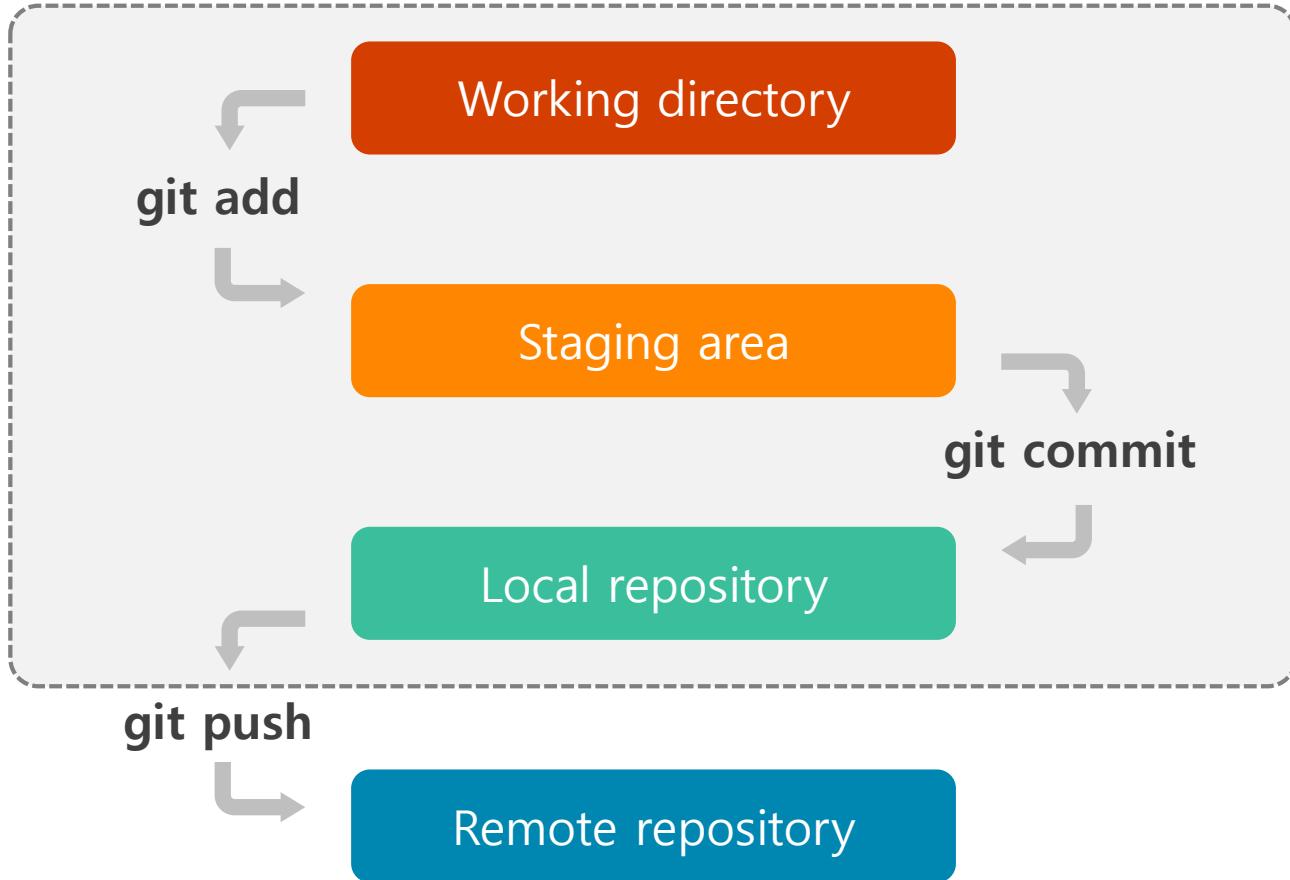
```
1 + __author__ = 'MINSOO'
2 +
3 + print("Hello, World!")
```

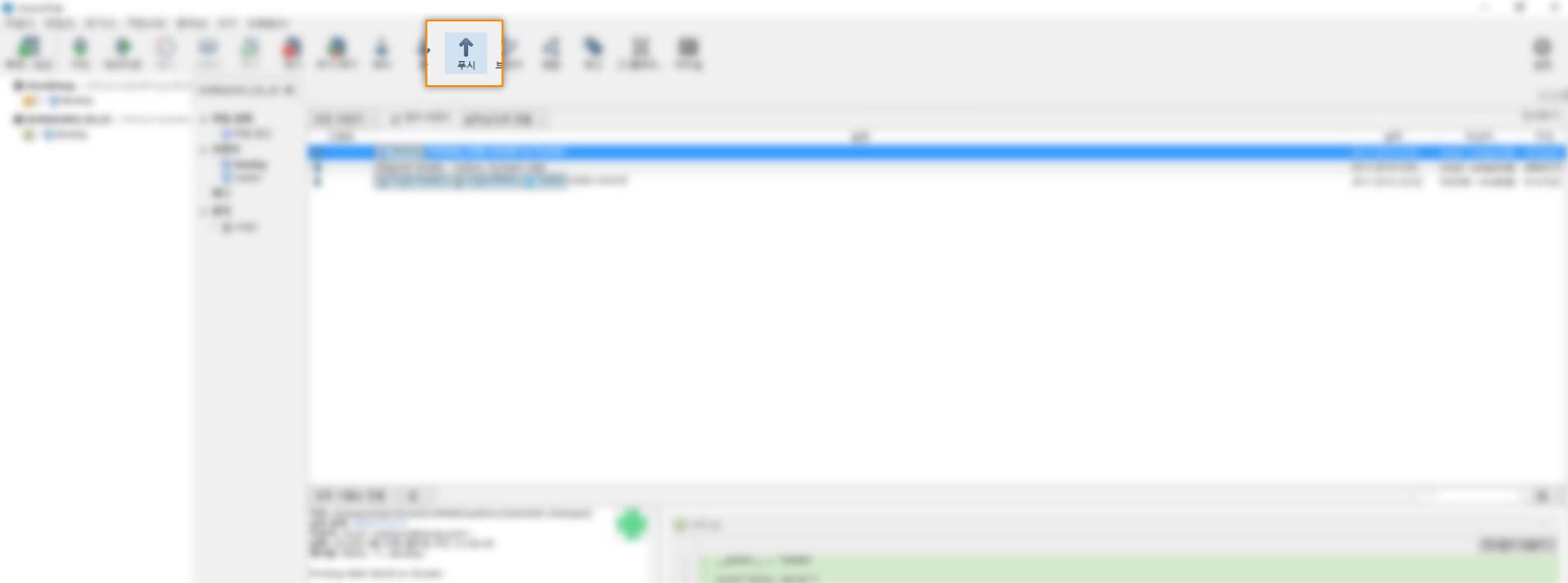
코드문서 되돌리기

수정 사항이 반영된 새로운 Commit이 생긴 것을 볼 수 있습니다.

파일 상태 로그 / 히스토리 검색

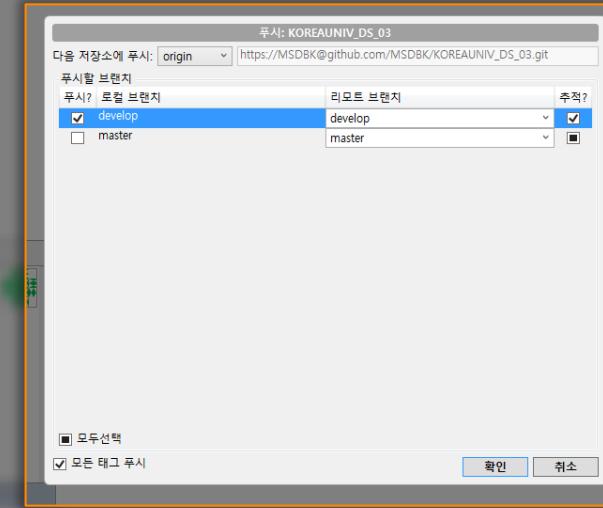
변경사항 없음 | develop Atlassian



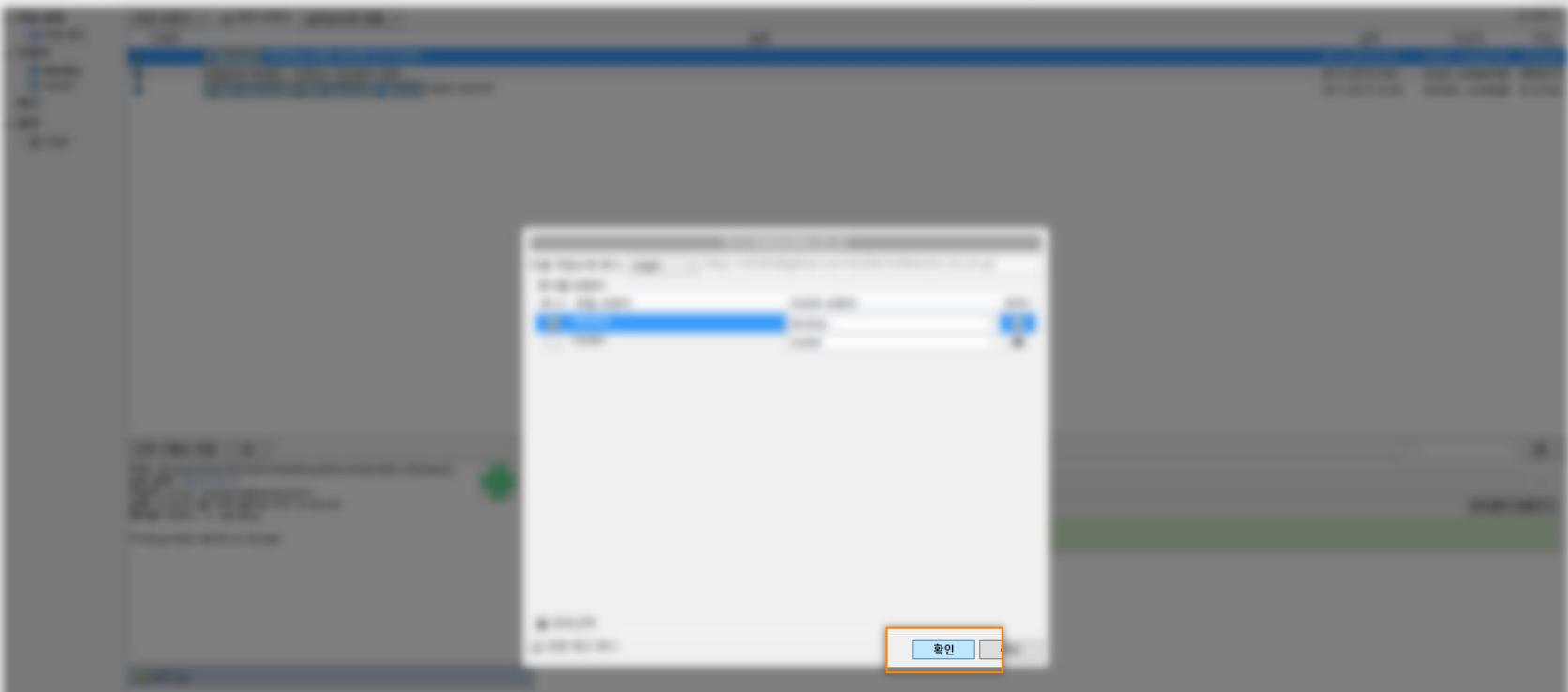


이제 로컬 저장소의 수정 사항을
원격 저장소에 반영하도록 하겠습니다.

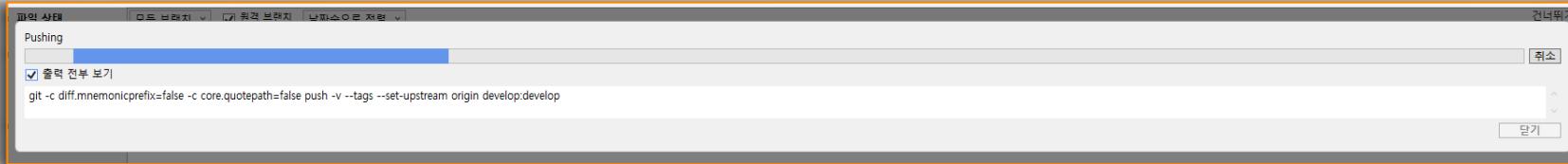
상단 메뉴에 푸시 버튼을 누릅니다.



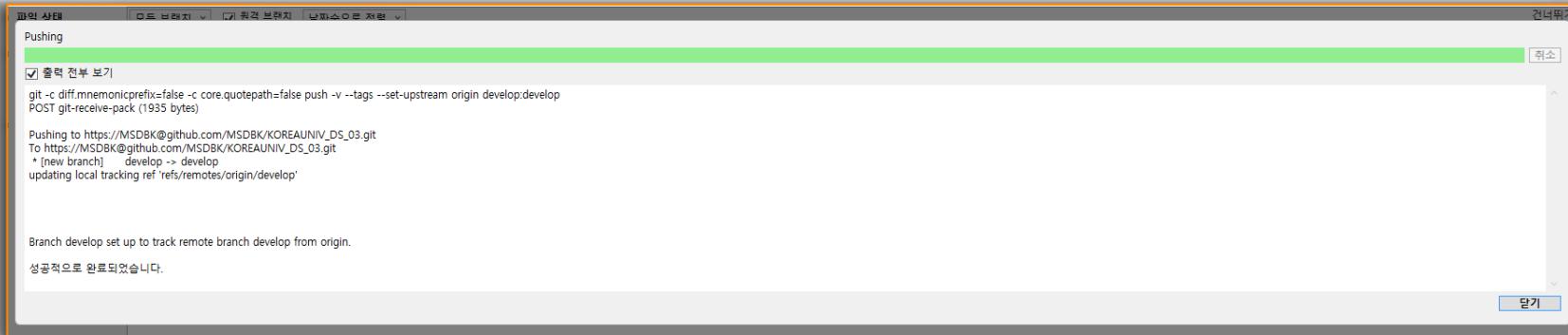
원격 저장소에 Push할 브랜치를 선택합니다.



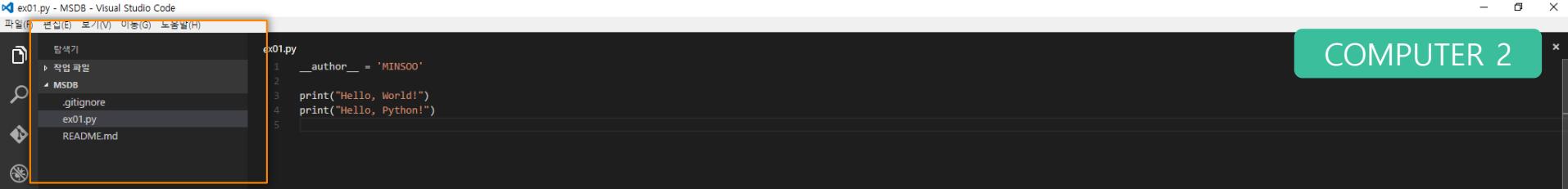
확인 버튼을 눌러 Push를 진행합니다.



Push가 진행되고 있는 모습입니다.



Push가 성공적으로 진행되면 다음과 같이 표시됩니다.



The screenshot shows a Visual Studio Code interface with a dark theme. The title bar says "ex01.py - MSDB - Visual Studio Code". The left sidebar shows a file tree with "MSDB" expanded, containing ".gitignore", "ex01.py", and "README.md". The main editor area displays the following Python code:

```
1 __author__ = 'MINSOO'
2
3 print("Hello, World!")
4 print("Hello, Python!")
```

이제 다른 컴퓨터에서 해당 파일에 대한 수정을 진행합니다.
해당 컴퓨터에 원격 저장소에 대한 복제가 완료되었다고 가정합니다.

```
ex01.py
1 __author__ = 'MINSOO'
2
3 print("Hello, World!")
4 print("Hello, Python!")
5
```

앞서 수정한 ex01.py 파일에 “Hello, Python” 출력을 추가합니다.

The screenshot shows the SourceTree application interface. At the top, there's a toolbar with various icons. Below it is a commit history window titled "KOREAUNIV_DS_03" with a blue header. The commit history lists several commits:

날짜	작성자	커밋
30 5 2016 0:42	*	45cbae2
30 5 2016 0:28	ronyK <sangron@	d9c4275
30 5 2016 0:00	ronyK <sangron@	81a7422
29 5 2016 23:02	MSDBK <msdb@i	

The commits include:

- origin/develop | develop Printing Hello World on Screen
- Ignore Modify - Python, PyCharm Add
- origin/master | origin/HEAD | master Initial commit

Below the commit history is a search bar and a file status summary. On the right, there's a code editor window titled "ex01.py" containing the following Python code:

```
1 __author__ = 'MINSOO'
2
3 print("Hello, World!")
4 print("Hello, Python!")
```

At the bottom of the SourceTree window, there's a message in a black box: "수정이 일어났음으로 SourceTree 화면이 다음과 같이 변합니다."

The screenshot shows a GitHub repository named 'KOREAUNIV_DS_03'. In the commit message, the user 'RonyK <sangron@naver.com>' has added the file 'ex01.py' with the content:

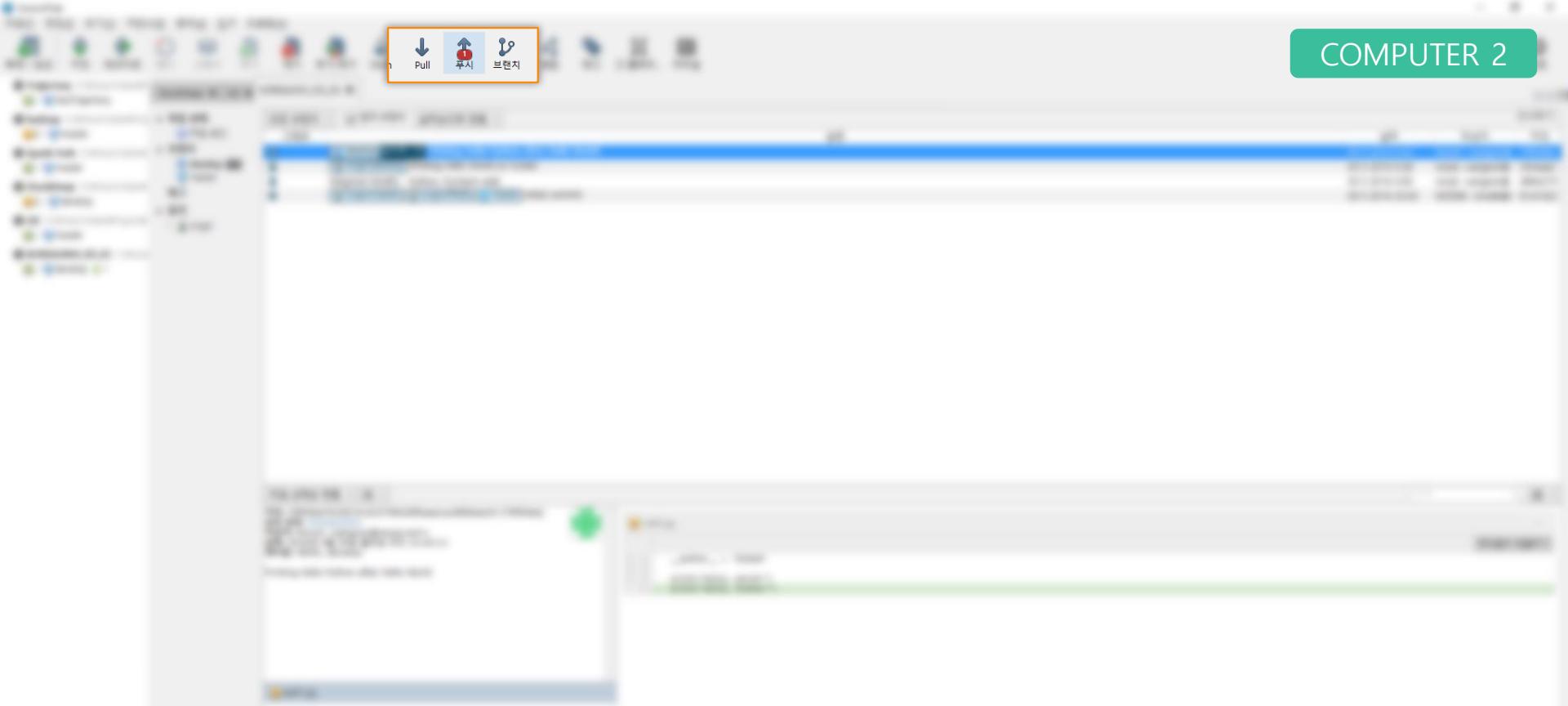
```
1 _author__ = 'MINSOO'  
2 print("Hello, World!")  
3 print("Hello, Python!")
```

An orange callout box highlights the commit message with the text: "ex01.py 파일에 print("Hello, Python!") 이 추가되었음을 표시합니다." (This shows that print("Hello, Python!") was added to the ex01.py file). A green arrow points from this callout to the code editor.

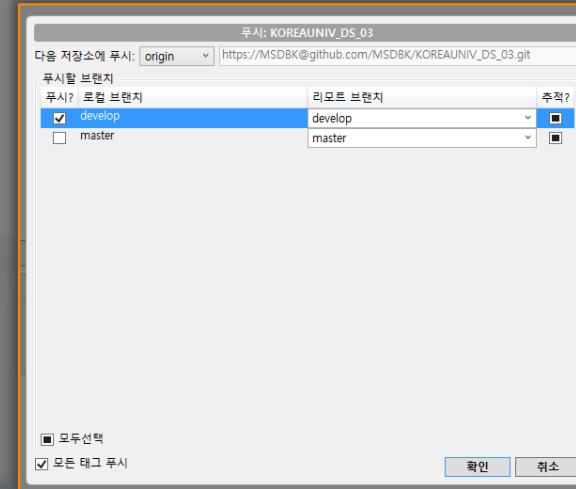
At the bottom, a dark bar contains the text: "앞선 실습과 같이 Commit을 진행합니다." (Proceed with the commit as in the previous exercise).

날짜	작성자	커밋
30 5 2016 0:43	RonyK <sangron@	79f505e
30 5 2016 0:28	ronyK <sangron@	45cbae2
30 5 2016 0:00	ronyK <sangron@	d984275
29 5 2016 23:02	MSDBK <msdb@l	81a7422

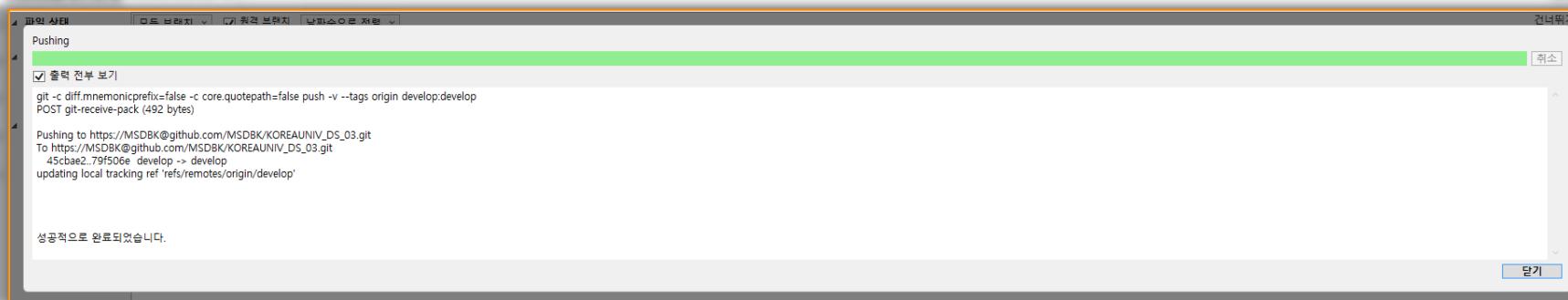
Commit이 완료되면, 다음과 같이 새로운 Commit이 표시됩니다.



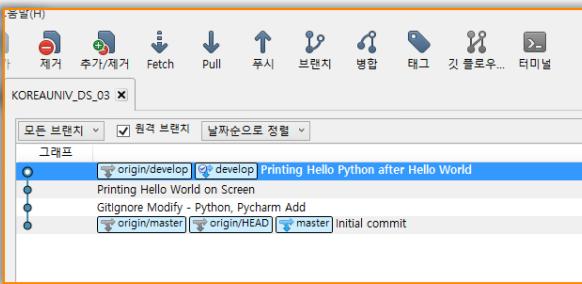
푸시 버튼에 원격 저장소에 반영할 Commit이 하나 있음이 표시됩니다.
푸시 버튼을 눌러 Push를 진행하도록 합니다.



앞선 실습과 동일하게 원격 저장소에 반영할 브랜치를 선택합니다.



새로운 Commit이 원격 저장소에 성공적으로 Push 되었습니다.



푸시 버튼에 숫자가 사라지고, 다음과 같이 화면이 표시 됩니다.

MSDBK/KOREAUNIV_DS_03 × 마이페이지 – Blackboard × hadoop/hadoop-tools/ha × GitHub, Inc. [US] https://github.com/MSDBK/KOREAUNIV_DS_03/tree/develop

This repository Search Pull requests Issues Gist + Unwatch 1 ★ Star 0 Fork 0

MSDBK / KOREAUNIV_DS_03

Code Issues 0 Pull requests 0 Wiki Pulse Graphs Settings

Korea Univ Data Structure 03 — Edit

4 commits 2 branches 0 releases 1 contributor

Your recently pushed branches:

develop (1 minute ago) Compare & pull request

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

This branch is 3 commits ahead of master. Pull request Compare

RonyK Printing Hello Python after Hello World Latest commit 79f506e 3 minutes ago

.gitignore Gitignore Modify an hour ago

README.md Initial commit 2 hours ago

ex01.py Printing Hello Python after Hello World 3 minutes ago

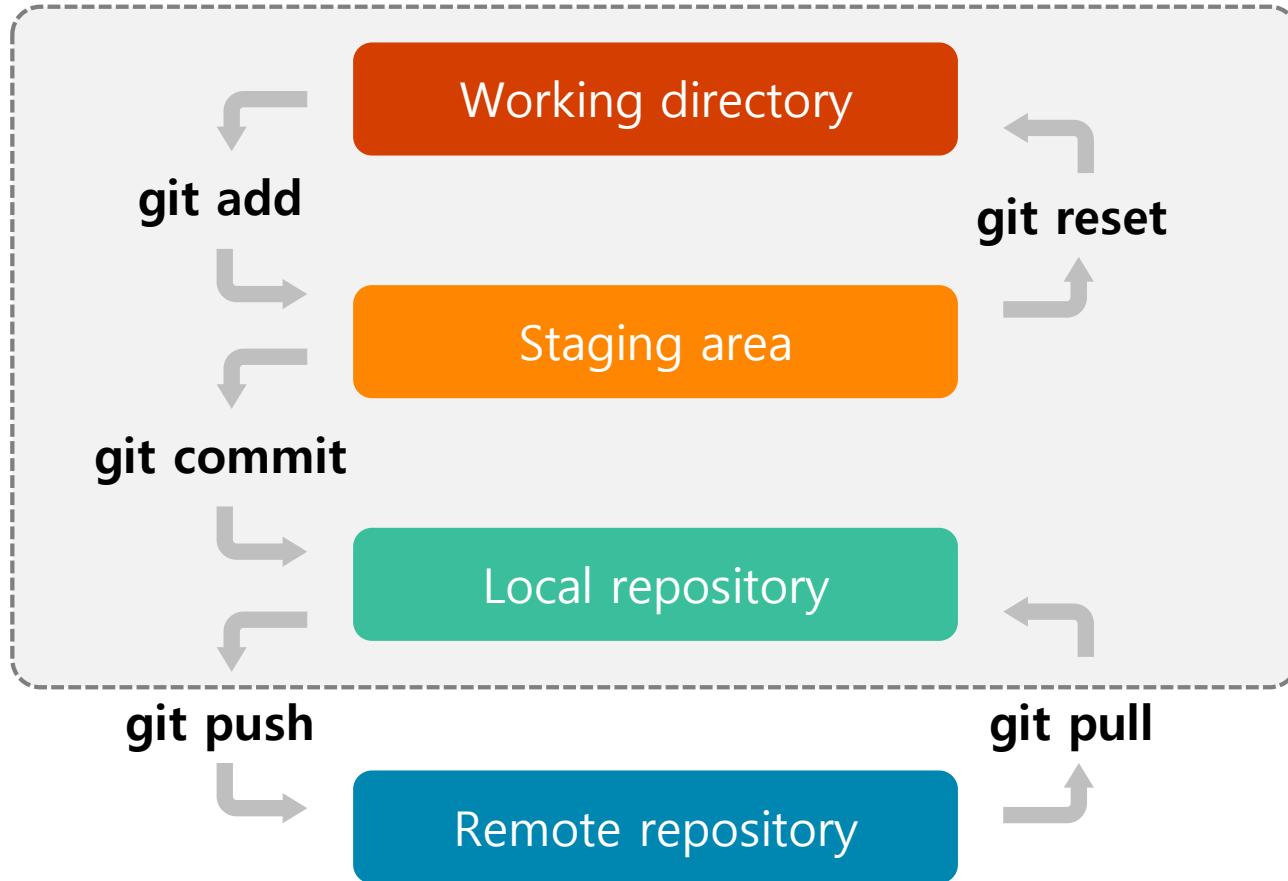
README.md

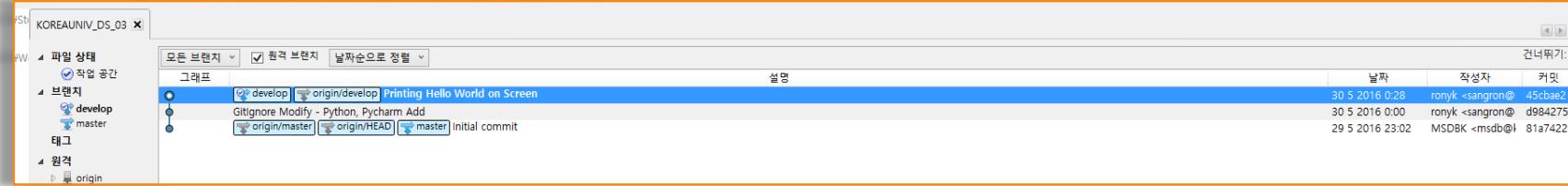
KOREAUNIV_DS_03

Korea Univ Data Structure 03

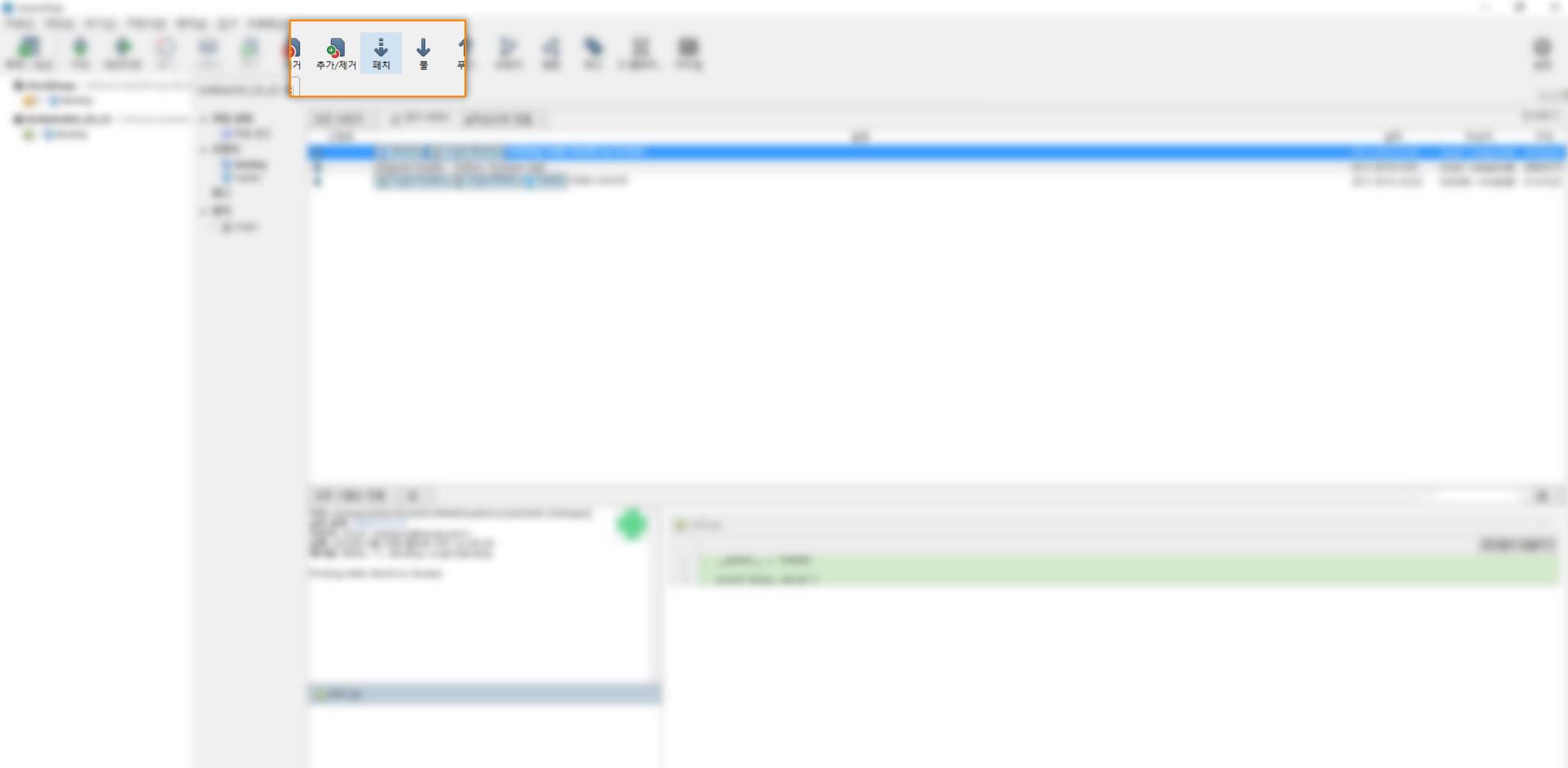
© 2016 GitHub, Inc. Terms Privacy Security Contact Help Status API Training Shop Blog About

GitHub에 Repository로 이동해보면 다음과 같이 표시됩니다.

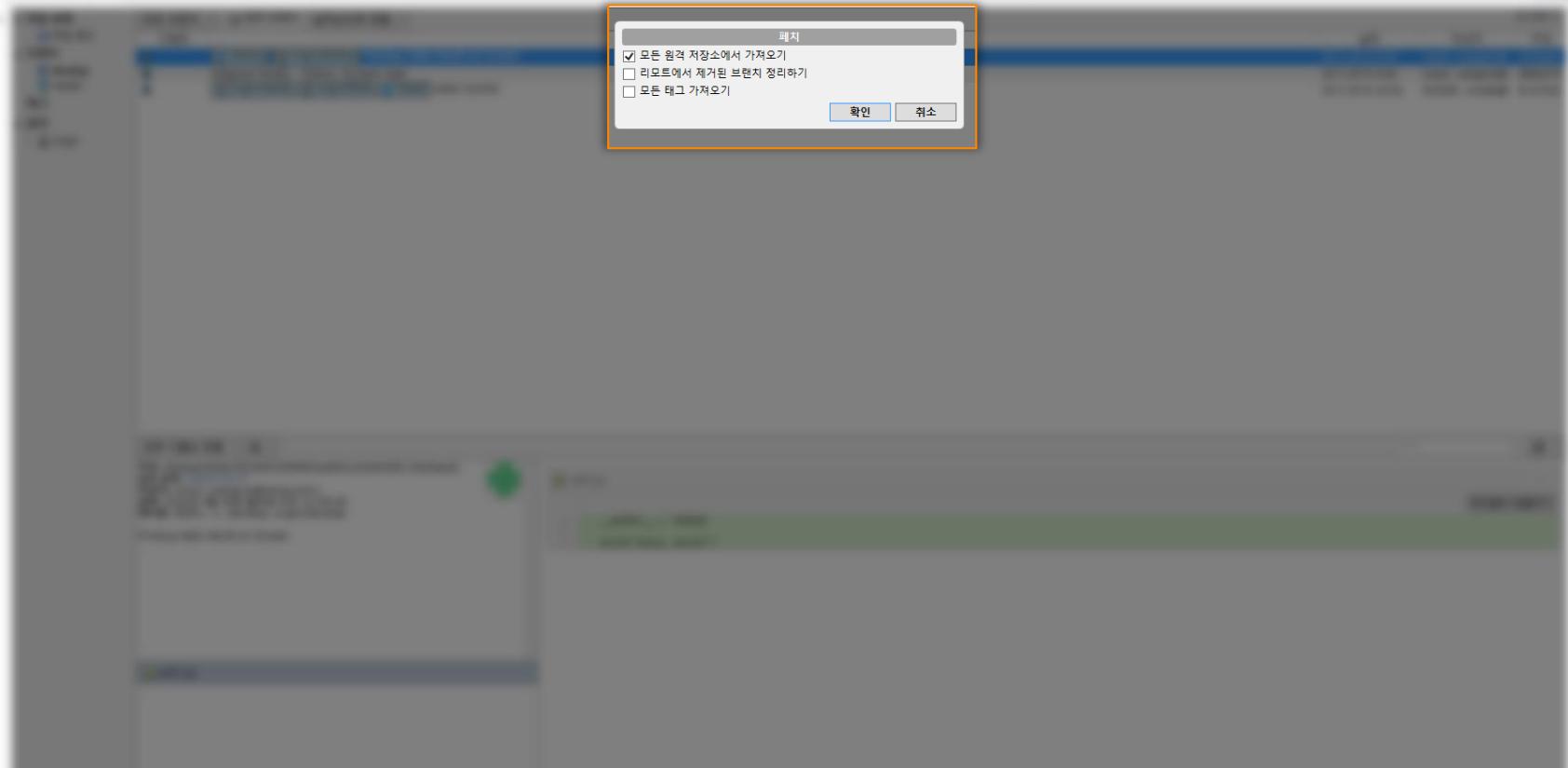




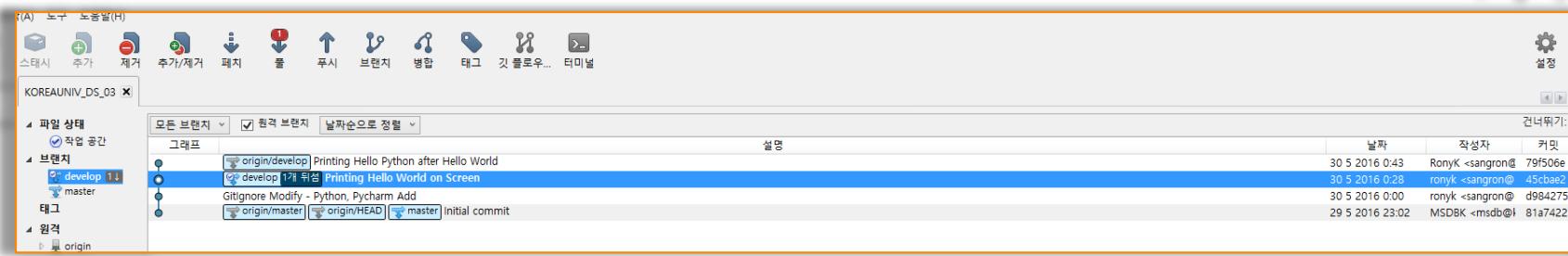
하지만 실습 컴퓨터로 돌아와 SourceTree를 보면,
아직 새로운 Commit이 반영되어 있지 않습니다.



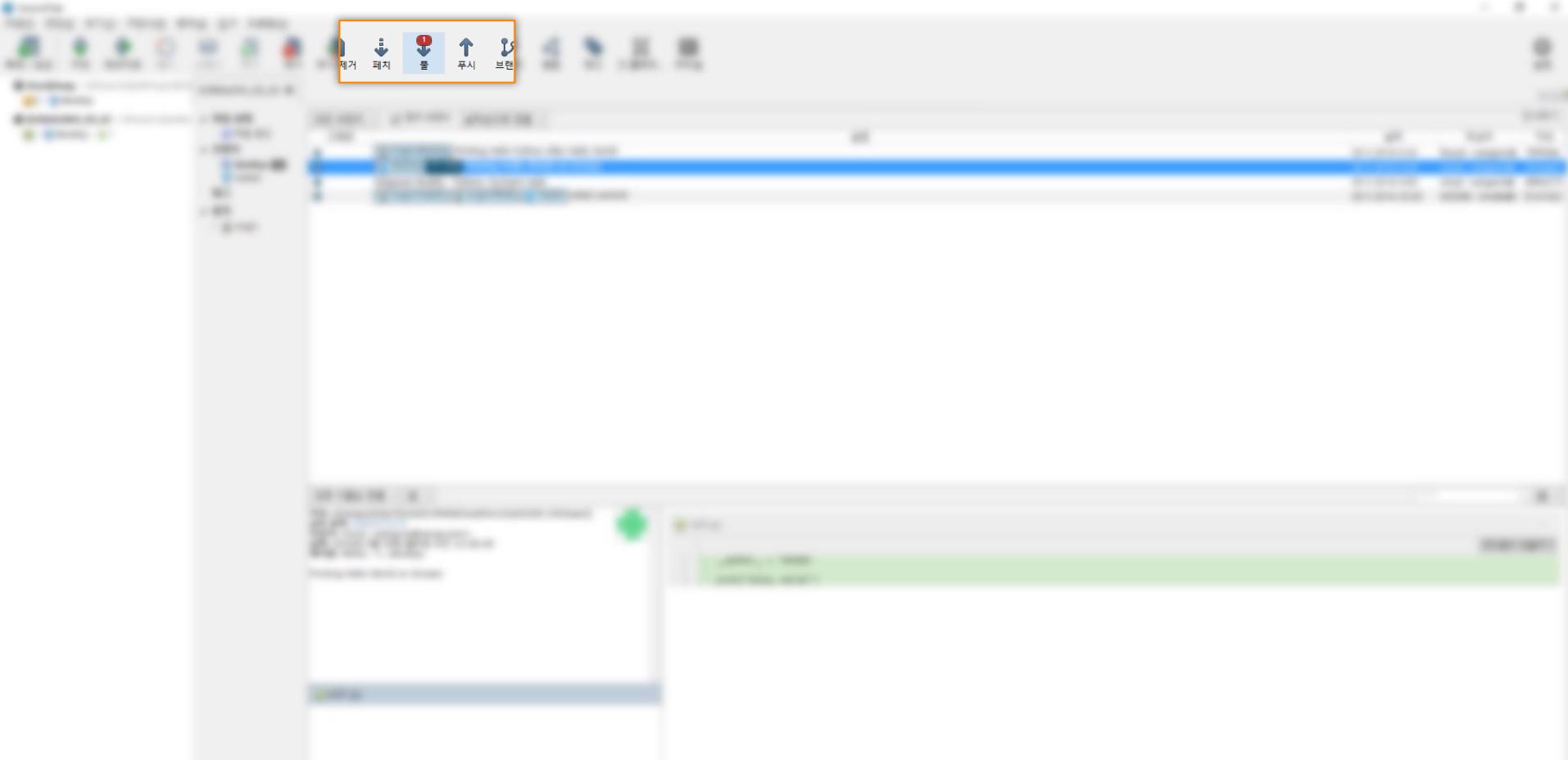
패치를 통해 원격 저장소의 업데이트 상황을 받아오도록 합니다.



모든 원격 저장소에서 가져오기를 수행합니다.



다음과 같이 develop 브랜치에서
새로운 1개의 Commit이 발생했음이 표시됩니다.



풀 버튼을 통해 원격 저장소의 커밋을 Pull 합니다.



Pull을 진행합니다.

▶ 자세한 옵션에 대한 설명은 생략합니다.



任务栏

Pulling

출력 전부 보기

```
git -c diff.mnemonicprefix=false -c core.quotepath=false fetch origin
git -c diff.mnemonicprefix=false -c core.quotepath=false pull origin develop
From https://github.com/MSDBK/KOREAUNIV_DS_03
 * branch      develop    -> FETCH_HEAD
```

Updating 45cbae2..79f506e
Fast-forward

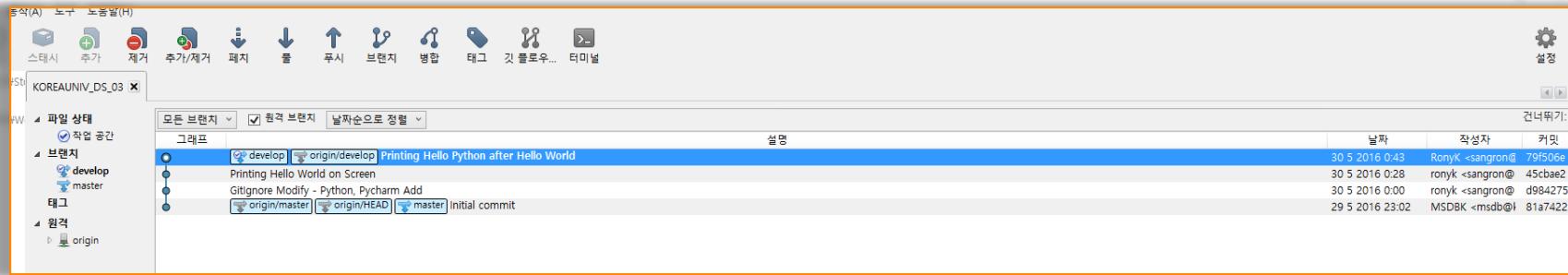
ex01.py | 1 +
1 file changed, 1 insertion(+)

git -c diff.mnemonicprefix=false -c core.quotepath=false submodule update --init --recursive

성공적으로 완료되었습니다.

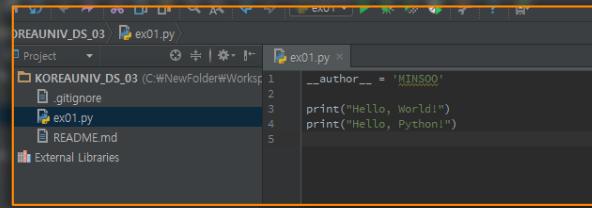
닫기

성공적으로 Pull이 완료되면 다음과 같이 표시됩니다.



Pull이 성공적으로 완료되었습니다.

로컬의 develop 브랜치가 원격의 develop 브랜치와 같은 위치로 이동합니다.



The screenshot shows a dark-themed Python code editor window. At the top, there's a toolbar with icons for file operations like Open, Save, and Run. Below the toolbar is a header bar with the project name "KOREAUNIV_DS_03" and the file name "ex01.py". The main area is a code editor with the following content:

```
1 __author__ = 'MINSOO'
2
3 print("Hello, World!")
4 print("Hello, Python!")
```

ex01.py 파일이 수정되어 반영됩니다.

Git Ignore

Git for Beginners



SourceTree

파일(F) 편집(E) 보기(V) 저장소(R) 동작(A) 도구 도움말(H)

복제 / 생성 커밋 체크아웃 폐기 스테시 추가 제거 폴더 끌어오기 브랜치 병합 태그 깃 플로우... 터미널

설정

KOREAUNIV_DS_03 x

StockDeep C:\NewFolder\Project\#StockDeep 2 | develop

KOREAUNIV_DS_03 C:\NewFolder\#KOREAUNIV_DS_03 6 | develop

모든 브랜치 ✓ 원격 브랜치 날짜순으로 정렬

브랜치

커밋하지 않은 변경사항

develop master origin/master origin/HEAD master Initial commit

날짜 29 5 2016 23:48 * 29 5 2016 23:02 작성자 MSDBK <msdb@i> 81a7422 커밋

설명

대기 중인 파일, 파일 상태순 정렬

스테이지에 올라간 파일

.idea/.name

파일 내용

1 KOREAUNIV_DS_03

코드봉지 스테이지에 올리기

스테이지에 올라가지 않은 파일

.idea/.name .idea/KOREAUNIV_DS_03.iml .idea/misc.xml .idea/modules.xml .idea/vcs.xml .idea/workspace.xml

파일 상태 로그 / 히스토리 검색

변경사항 없음 6 | develop Atlassian



♦gitignore.io

Create useful .gitignore files for your project

 Generate ▾

[Source Code](#) | [Command Line Docs](#) | [Watch Video Tutorial](#)



♦gitignore.io

Create useful .gitignore files for your project

[Source Code](#) | [Command Line Docs](#) | [Watch Video Tutorial](#)



♦gitignore.io

Create useful .gitignore files for your project

PyCharm Python

Generate

Source Code | Command Line Docs | Watch Vid Download File

Reference

Git for Beginners



References

References

- [1] <http://www.slideshare.net/ssusercef361/git-github-61998192>, Git 더하기 GitHub 강의 전 준비, SlideShare
- [2] <https://help.github.com/categories/setup/>, GitHub Help Categories /Setup, GitHub Help
- [3] <https://help.github.com/categories/bootcamp/>, GitHub Help Categories /Bootcamp, GitHub Help
- [4] <https://www.git-tower.com/learn/git/ebook/en/mac/basics/working-on-your-project#start>, Learn Version Control with Git
- [5] <https://git-scm.com/about/staging-area>, About Git

Thanks

Git for Beginners

MINSOO KIM

Database Group.
Dept. of Computer Science & Engineering.
Korea University

✉ msdb@korea.ac.kr