

LG전자 BS팀

# 『1일차』 : 오후

◆ 훈련과정명 : [BS] Git 형상관리에 대한 이해 및 실습

◆ 훈련기간 : 2023.06.07 ~ 2023.06.09

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- 1 5교시 : 커밋 내역 수정
- 2 6교시 : 커밋 내역 수정
- 3 7교시 : GUI 환경에서 버전 관리 시작하기
- 4 8교시 : GUI 환경에서 버전 관리 시작하기

『1과목』 Git, GitHub 기본 사용

# 5-6교시 : 커밋 내역 수정





# 1. 인프라 설계 준비

## 학습목표

- 로컬저장소를 소스트리에 불러올 수 있다.
- 소스트리로 커밋을 만들고 푸시를 할 수 있다.

## 눈높이 체크

- SourceTree를 알고 계신가요?



# 1. Pre-Requisites

## 1. new repository 생성

- 앞선 만든, git\_study\_1st\_project 이용

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV
```

```
$ git config --global user.name
```

```
looker2zip
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV
```

```
$ git config --global user.email
```

```
looker2zip@gmail.com
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV
```

```
$ cd gitworkspaces/
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces
```

```
$ pwd
```

```
/c/DEV/gitworkspaces
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces
```

```
$ ll -a
```

```
total 4
```

```
drwxr-xr-x 1 apro621 197121 0 5월 8 09:14 ./
```

```
drwxr-xr-x 1 apro621 197121 0 5월 8 09:14 ../
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces
```

```
$ git clone https://github.com/looker2zip/git\_study\_1st\_project.git
```

```
Cloning into 'git_study_1st_project'...
```

```
warning: You appear to have cloned an empty repository.
```



# 1. Pre-Requisites

## 1. new repository 생성

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces
```

```
$ ll -a
```

```
total 4
```

```
drwxr-xr-x 1 apro621 197121 0 5월 8 09:14 ./
```

```
drwxr-xr-x 1 apro621 197121 0 5월 8 09:14 ../
```

```
drwxr-xr-x 1 apro621 197121 0 5월 8 09:14 git_study_1st_project/
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces
```

```
$ cd git_study_1st_project/
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$ ll -a
```

```
total 5
```

```
drwxr-xr-x 1 apro621 197121 0 5월 8 09:20 ./
```

```
drwxr-xr-x 1 apro621 197121 0 5월 8 09:14 ../
```

```
drwxr-xr-x 1 apro621 197121 0 5월 8 09:14 .git/
```

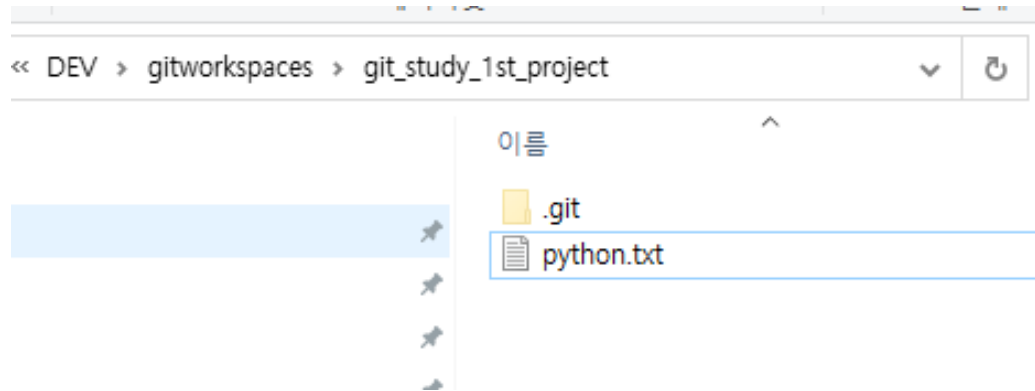
```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$
```

# 1. Pre-Requisites

## 2. 파일 생성

### ● 파이썬 함수 작성 순서.txt 파일 생성



python.txt - Windows 메모장

파일(F) 편집(E) 서식(O) 보기(V) 도움말(H)

덧셈 함수

```
def sum(a, b):  
    return a + b
```



# 1. Pre-Requisites

## 3. Push

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$ ll -a
```

```
total 5
```

```
drwxr-xr-x 1 apro621 197121 0 5월 8 09:30 ./
```

```
drwxr-xr-x 1 apro621 197121 0 5월 8 09:14 ../
```

```
drwxr-xr-x 1 apro621 197121 0 5월 8 09:30 .git/
```

```
-rw-r--r-- 1 apro621 197121 45 5월 8 09:22 python.txt
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$ git status
```

```
On branch main
```

```
No commits yet
```

```
Untracked files:
```

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

```
python.txt
```

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

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$ git add python.txt
```





# 1. Pre-Requisites

## 3. Push

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$ git status
```

```
On branch main
```

```
No commits yet
```

```
Changes to be committed:
```

```
(use "git rm --cached <file>..." to unstage)
```

```
new file:   python.txt
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$ git commit -m "Add python.txt"
```

```
[main (root-commit) 2c6c8e3] Add python.txt
```

```
1 file changed, 3 insertions(+)
```

```
create mode 100644 python.txt
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$ git status
```

```
On branch main
```

```
Your branch is based on 'origin/main', but the upstream is gone.
```

```
(use "git branch --unset-upstream" to fixup)
```

```
nothing to commit, working tree clean
```

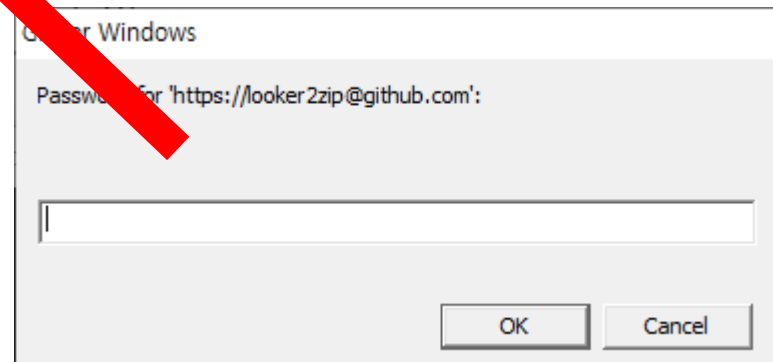
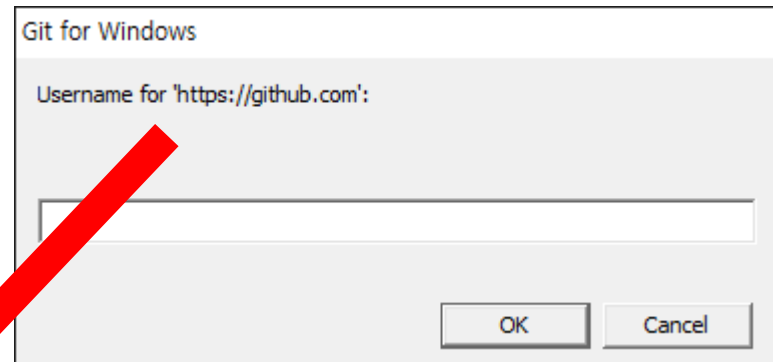
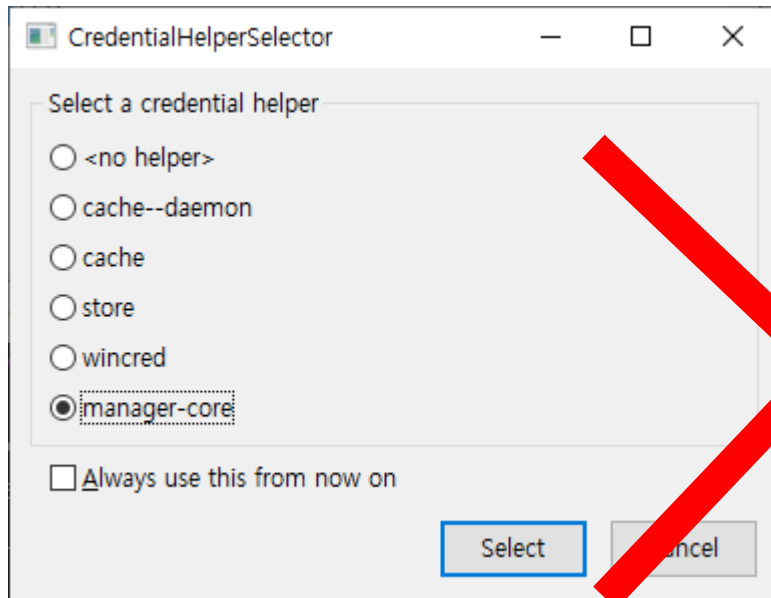
```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

# 1. Pre-Requisites

## 3. Push

ap0621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

**\$ git push**

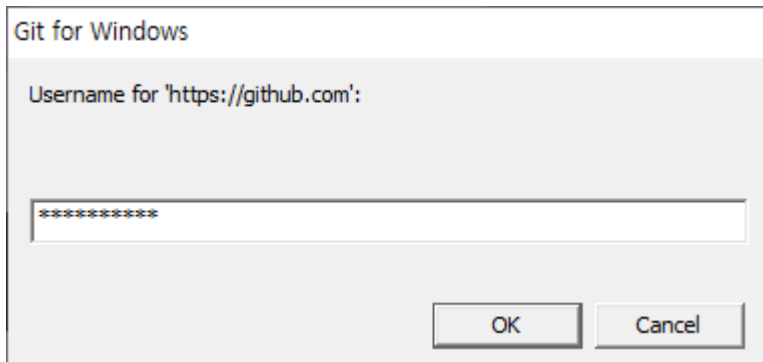


# 1. Pre-Requisites

## 3. Push

ap0621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

\$ git push



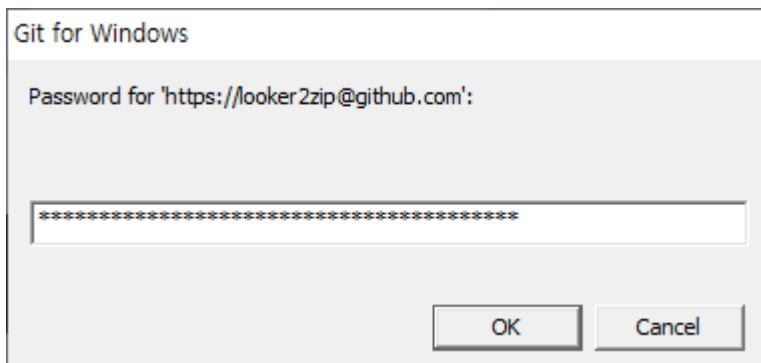
Git for Windows

Username for 'https://github.com':

\*\*\*\*\*

OK Cancel

- **GitHub에 push 등의 작업을 수행할 때, PW를 입력하라고 뜨면, 방금 생성한 Personal Access Token을 입력**



Git for Windows

Password for 'https://looker2zip@github.com':

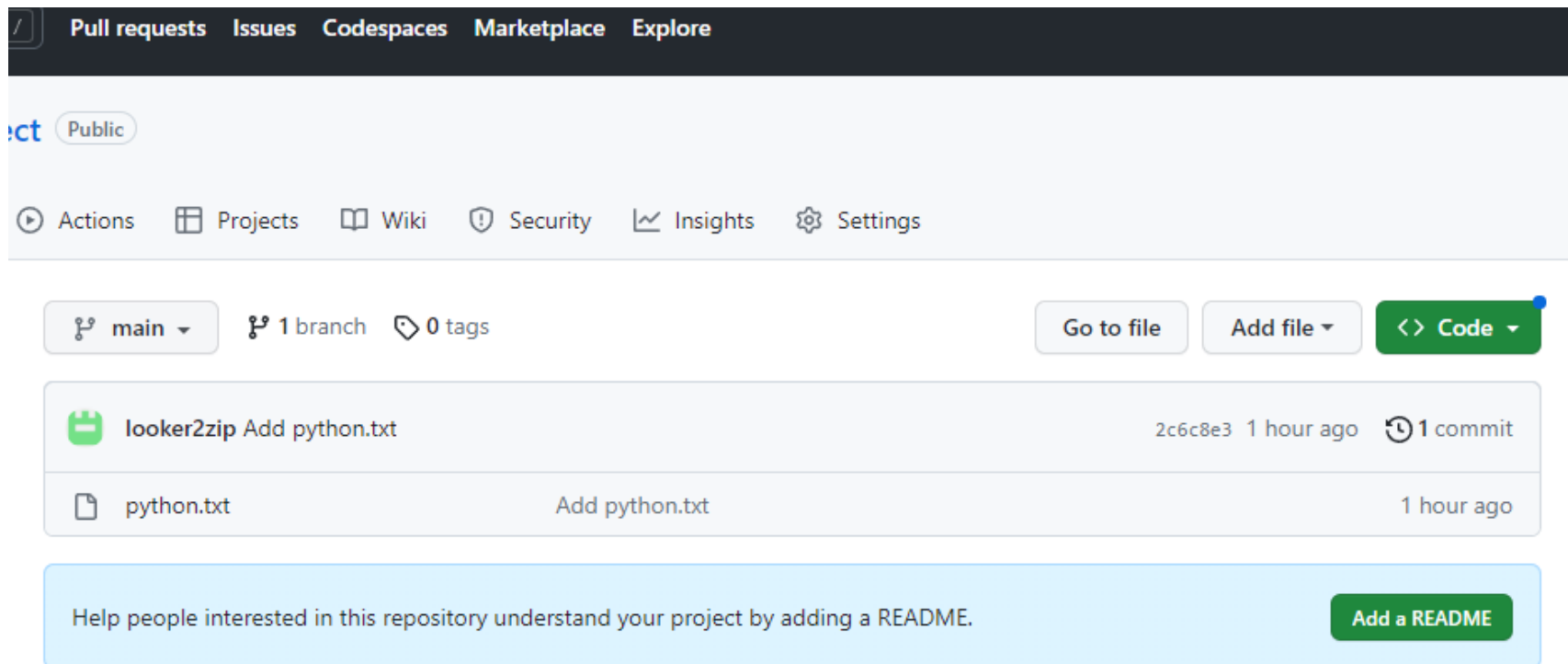
\*\*\*\*\*

OK Cancel

# 1. Pre-Requisites

## 3. Push

- Push 완료



The screenshot shows a GitHub repository interface. At the top, there's a navigation bar with links: Pull requests, Issues, Codespaces, Marketplace, and Explore. Below this, the repository name is partially visible as 'ect' with a 'Public' badge. A secondary navigation bar includes Actions, Projects, Wiki, Security, Insights, and Settings. The main content area shows the 'main' branch with 1 branch and 0 tags. There are buttons for 'Go to file', 'Add file', and 'Code'. A commit by 'looker2zip' titled 'Add python.txt' is shown, with commit hash '2c6c8e3' and timestamp '1 hour ago'. Below the commit, a file 'python.txt' is listed with the same commit information. At the bottom, a light blue box prompts the user to 'Add a README' to help people understand the project.

Pull requests Issues Codespaces Marketplace Explore

ect Public

Actions Projects Wiki Security Insights Settings

main 1 branch 0 tags

Go to file Add file <> Code


looker2zip Add python.txt 2c6c8e3 1 hour ago 1 commit

python.txt Add python.txt 1 hour ago

Help people interested in this repository understand your project by adding a README. Add a README

# 1. Pre-Requisites

## 4. 파일 갱신

 \*python.txt - Windows 메모장

파일(F) 편집(E) 서식(O) 보기

덧셈 함수

```
def sum(a, b):  
    return a + b
```

뺄셈 함수

```
def sub(a, b):  
    return a - b
```

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

**\$ git status**

On branch main

Your branch is up to date with 'origin/main'.

Changes not staged for commit:

**(use "git add <file>..." to update what will be committed)**

**(use "git restore <file>..." to discard changes in working directory)**

modified: python.txt

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

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

\$



# 1. Pre-Requisites

## 5. 되돌리기

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$ git checkout -- python.txt
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$
```

python.txt - Windows 메

파일(F) 편집(E) 서식(O)

덧셈 함수

```
def sum(a, b):
```

```
    return a + b
```

```
$ git checkout -- python.txt
```

# 1. Pre-Requisites

## 6.파일 재 생성 후 Push

\*python.txt - Windows

파일(F) 편집(E) 서식(O)

덧셈 함수

```
def sum(a, b):  
    return a + b
```

뺄셈 함수

```
def sub(a, b):  
    return a - b
```

```
Add python.txt [Sub]  
Please enter the commit message for your changes. Lines starting  
with '#' will be ignored, and an empty message aborts the commit.  
Date: Mon May 8 10:51:54 2023 +0900  
On branch main  
Your branch is ahead of 'origin/main' by 1 commit.  
(use "git push" to publish your local commits)  
Changes to be committed:  
  modified:   python.txt  
git/COMMIT.EDITMSG (unix) (10:53 08/05/2023) 1.1 모두
```

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

~~\$ git checkout --python.txt~~

\$ git add python.txt

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

\$ git commit -m "Add python.txt [Sub]"

[main 36e9c10] Add python.txt [Sub]

1 file changed, 5 insertions(+), 1 deletion(-)

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

\$

커밋 명령을 변경하고자 할  
경우, \$ git commit --amend  
을 이용할 수 있다.



# 1. Pre-Requisites

## 6.파일 재 생성 후 Push

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$ git status
```

```
On branch main
```

```
Your branch is ahead of 'origin/main' by 1 commit.
```

```
(use "git push" to publish your local commits)
```

```
nothing to commit, working tree clean
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$ git push
```

push

```
Enumerating objects: 5, done.
```

```
Counting objects: 100% (5/5), done.
```

```
Delta compression using up to 12 threads
```

```
Compressing objects: 100% (2/2), done.
```

```
Writing objects: 100% (3/3), 313 bytes | 313.00 KiB/s, done.
```

```
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
```

```
To https://github.com/looker2zip/git_study_1st_project.git
```


```
2c6c8e3..8dc5a9c main -> main
```

```
apro621@DESKT
```





# 1. Pre-Requisites


## 7.파일 재 생성 후 Push 완료


 Search or jump to...


PullsIssuesCodespacesMarketplaceExplore

 [looker2zip / git\\_study\\_1st\\_project](#) Public


 Pin

 Unwatch 1

 Fork 0

 Star 0

<> CodeIssuesPull requestsActionsProjectsWikiSecurityInsightsSettings


 main


Go to file

Add file

<> Code

About


 **looker2zip** Add python.txt [Sub] ... 2 minutes ago 2


 python.txt Add python.txt [Sub] 2 minutes ago


Help people interested in this repository understand your project by adding a README.

Add a README

No description, website, or topics provided.

 0 stars

 1 watching

 0 forks

Releases



## 2. 커밋(Commit) 내역 수정


### 1. pull

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

**\$ git pull**

Already up to date.

- 파일 변경

 python.txt - Windows 메모장

파일(F) 편집(E) 서식(O) 보기(V)

덧셈 함수

```
def sum(a, b):  
    return a + b
```

뺄셈 함수

```
def sub(a, b):  
    return a - b
```

곱셈 함수

```
def mul(a, b):  
    return a * b
```



## 2. 커밋(Commit) 내역 수정

### 2. push

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
$ git add .
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
$ git commit -m "Add python.txt [Mul]"
[main 09cc239] Add python.txt [Mul]
1 file changed, 5 insertions(+), 1 deletion(-)
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
$ git status
On branch main
Your branch is ahead of 'origin/main' by 1 commit.
(use "git push" to publish your local commits)
```

```
nothing to commit, working tree clean
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
$ git push
Enumerating objects: 5, done.
Counting objects: 100% (5/5), done.
Delta compression using up to 12 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 324 bytes | 324.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
To https://github.com/looker2zip/git_study_1st_project.git
8dc5a9c..09cc239 main -> main
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
$
```



## 2. 커밋(Commit) 내역 수정

### 3. Git log

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

**\$ git log**

commit 09cc2394273fb2283de0eb71b6cfe18b91025ca4 (HEAD -> main, origin/main)

Author: looker2zip <looker2zip@gmail.com>

Date: Mon May 8 11:05:38 2023 +0900

Add python.txt [Mul]

commit 8dc5a9c0672bedb12fc8989928f61c9e69b02ccf

Author: looker2zip <looker2zip@gmail.com>

Date: Mon May 8 10:51:54 2023 +0900

Add python.txt [Sub]

commit 2c6c8e3d686e89c3f7b79ed69e6ba7b836ad37f3

Author: looker2zip <looker2zip@gmail.com>

Date: Mon May 8 09:32:20 2023 +0900

Add python.txt

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

\$

로그 창 빠져 나올 때 Q 입력

# 3. 커밋 전으로 되돌아가기

## 4. 되돌아가기

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

```
$ git reset --hard 2c6c8e3d686e89c3f7b79ed69e6ba7b836ad37f3
```

HEAD is now at 2c6c8e3 Add python.txt

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

```
$ git log
```

commit 2c6c8e3d686e89c3f7b79ed69e6ba7b836ad37f3 (HEAD -> main)

Author: looker2zip <looker2zip@gmail.com>

Date: Mon May 8 09:32:20 2023 +0900

Add python.txt

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

```
$
```

```
boram.park@PTDMF10-NA10H95 MINGW64 /c/dev/gitworkspaces/git_study_2nd (main)
$ git log
commit 017b14d855f431aaf5894609d5450b93a540bbd5 (HEAD -> main, origin/main)
Author: boram72 <parkboram72@gmail.com>
Date: Wed Jun 7 14:31:41 2023 +0900
    add multiply func

commit bf99e1cad41a0d3bde16cf40375dcb70d6fc0e17
Author: boram72 <parkboram72@gmail.com>
Date: Wed Jun 7 14:29:53 2023 +0900
    python.txt add

commit 59a64eea04cd8e4a0e1dcbcfce71537464b1527
Author: boram72 <parkboram72@gmail.com>
Date: Wed Jun 7 14:14:22 2023 +0900
    Add python.txt

boram.park@PTDMF10-NA10H95 MINGW64 /c/dev/gitworkspaces/git_study_2nd (main)
$ git reset --hard 59a64ee
HEAD is now at 59a64ee Add python.txt

boram.park@PTDMF10-NA10H95 MINGW64 /c/dev/gitworkspaces/git_study_2nd (main)
$ git log
commit 59a64eea04cd8e4a0e1dcbcfce71537464b1527 (HEAD -> main)
Author: boram72 <parkboram72@gmail.com>
Date: Wed Jun 7 14:14:22 2023 +0900
    Add python.txt
```

**--hard 옵션은 선택한 것 이후에  
것은 모두 삭제함**

python.txt - Windows 메모장

파일(F) 편집(E) 서식(O) 보기(V) 도움말(H)

덱셈 함수

```
def sum(a, b):
    return a + b
```

```
$ git revert e1d2c50a478510f70fed6a5857aed9b43d7ffc46
```

```
$ git revert --no-commit e1d2c50a478510f70fed6a5857aed9b43d7ffc46
```



# 3. 커밋 전으로 되돌아가기

## 5. Push 할 경우

### \$ git push

To https://github.com/looker2zip/git\_study\_1st\_project.git

! [rejected] main -> main (non-fast-forward)

error: failed to push some refs to 'https://github.com/looker2zip/git\_study\_1st\_project.git'

hint: Updates were rejected because the tip of your current branch is behind

hint: its remote counterpart. Integrate the remote changes (e.g.

hint: 'git pull ...') before pushing again.

hint: See the 'Note about fast-forwards' in 'git push --help' for details.

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

\$

에러 남

```
boram.park@PTDMF10-NA10H95 MINGW64 /c/dev/gitworkspaces/git_study_2nd (main)
$ git push
To https://github.com/boram72/git_study_2nd.git
! [rejected] main -> main (non-fast-forward)
error: failed to push some refs to 'https://github.com/boram72/git_study_2nd.git'
hint: Updates were rejected because the tip of your current branch is behind
hint: its remote counterpart. Integrate the remote changes (e.g.
hint: 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
```



# 3. 커밋 전으로 되돌아가기

## 5. Push 할 경우

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

**\$ git push -f**

Total 0 (delta 0), reused 0 (delta 0), pack-reused 0

To https://github.com/looker2zip/git\_study\_1st\_project.git

+ 09cc239...2c6c8e3 main -> main (forced update)

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

\$

**강제로 Push**

Search or jump to... Pulls Issues Codespaces Marketplace Explore

looker2zip / git\_study\_1st\_project Public Pin Unwatch 1 Fork 0 Star 0

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

main Go to file Add file <> Code About

looker2zip Add python.txt 1 hour ago 1

python.txt Add python.txt 1 hour ago

No description, website, or topics provided.

0 stars 1 watching 0 forks

Help people interested in this repository understand your project by adding a README. Add a README



# 4. 커밋 메시지 변경

## 1. 기존 커밋 메시지

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$ git log
```

```
commit 2c6c8e3d686e89c3f7b79ed69e6ba7b836ad37f3 (HEAD -> main, origin/main)
```

```
Author: looker2zip <looker2zip@gmail.com>
```

```
Date: Mon May 8 09:32:20 2023 +0900
```

```
    Add python.txt
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$
```





## 2. 새 커밋 메시지

apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git\_study\_1st\_project (main)

## \$ git commit --amend

```
Add python.txt [ADD]
# Please enter the commit message for your changes. Lines starting
# with '#' will be ignored, and an empty message aborts the commit.
# Date:      Mon May 8 09:32:20 2023 +0900
# On branch main
# Initial commit
# Changes to be committed:
#       new file:   python.txt
```

.git/COMMIT\_EDITMSG[+] [unix] (11:18 08/05/2023)

# 4. 커밋 메시지 변경

## 2. 새 커밋 메시지

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$ git log
```

```
commit a701435eb269f1609e7d0de393fd92943f4812fo (HEAD -> main)
```

```
Author: looker2zip <looker2zip@gmail.com>
```

```
Date: Mon May 8 09:32:20 2023 +0900
```

```
Add python.txt [ADD]
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$ git push -f
```

```
Enumerating objects: 3, done.
```

```
Counting objects: 100% (3/3), done.
```

```
Writing objects: 100% (3/3), 272 bytes | 272.00 KiB/s, done.
```

```
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
```

```
To https://github.com/looker2zip/git_study_1st_project.git
```

```
+ 2c6c8e3...a701435 main -> main (forced update)
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_1st_project (main)
```

```
$
```



## 4. 커밋 메시지 변경

### 3. Push 완료

Repository interface showing a commit and file addition.

Repository: **Project** (Public)

Navigation: Actions Projects Wiki Security Insights Settings

Branches: main 1 branch 0 tags

Buttons: Go to file Add file <> Code

Commit: **looker2zip** Add python.txt [ADD] a701435 2 minutes ago 1 commit

File: **python.txt** Add python.txt [ADD] 2 minutes ago

Help people interested in this repository understand your project by adding a README. [Add a README](#)

# 『2과목』 GUI 환경에서 Git 사용

## 7-8교시 :

# GUI 환경에서 버전 관리 시작하기





# 1. 인프라 설계 준비

## 학습목표

- GUI 버전 관리 환경 구축을 할 수 있다.
- SourceTree 로 커밋 만들고 푸시를 할 수 있다.


## 눈높이 체크

- SourceTree를 알고 계신가요?

# 1. 내 컴퓨터에 소스트리 설치하기

## GUI Clients

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

 **git** --fast-version-control

[About](#)  
[Documentation](#)  
[Downloads](#)  
    **GUI Clients**  
    Logos  
[Community](#)

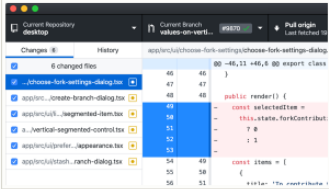
The entire **Pro Git** book written by Scott Chacon and Ben Straub is available to [read online for free](#). Dead tree versions are available on [Amazon.com](#).

### GUI Clients

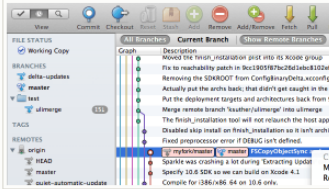
Git comes with built-in GUI tools for committing (**git-gui**) and browsing (**gitk**), but there are several third-party tools for users looking for platform-specific experience.

If you want to add another GUI tool to this list, just [follow the instructions](#).

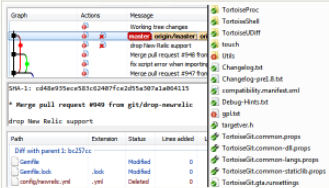
[All](#) [Windows](#) [Mac](#) [Linux](#) [Android](#) [iOS](#)



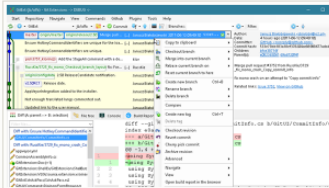
**GitHub Desktop**  
Platforms: Mac, Windows  
Price: Free  
License: MIT



**SourceTree**  
Platforms: Mac, Windows  
Price: Free  
License: Proprietary



**TortoiseGit**  
Platforms: Windows  
Price: Free  
License: GNU GPL



**Git Extensions**  
Platforms: Windows  
Price: Free  
License: GNU GPL

# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 다운로드 하기

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

The image shows a web browser window displaying the Sourcetree website. The website has a blue header with the Sourcetree logo and a 'Download free' button. The main content area features the text 'Click!!!' in a large, bold font, with a red speech bubble pointing to it. Below this, it says 'Simplicity and power in a beautiful Git GUI'. A red box highlights the 'Download for Windows' button. Below the button, it says 'Also available for Mac OS X' and 'Latest release notes: [Mac OS X](#) & [Windows](#)'. To the right of the website screenshot is a preview of the Sourcetree Git GUI interface, showing a commit history table with columns for Commit, Author, Description, and Date.

Commit	Author	Description	Date
b7358c7	Rahul Chhabra	Removing old...	Mar 3, 2016, 11:...
bdb8bef	Rahul Chhabra	Merged in update-google-verification (pull request #14)	Feb 18, 2016, 1:3...
dfe975d	Tyler Tadej...	Update google verificat...	Feb 11, 2016, 2:2...
3bc3290	Tyler Tadej...	Replace outdated Atlassian logo in footer with base-64 en...	Feb 11, 2016, 2:1...
dba4719	Tyler Tadej...	Add gitignore	Feb 11, 2016, 1:3...
ff67b45	Mike Minns...	Updated Mac min-spec to 10.10	Feb 15, 2016, 11:...
72d32a8	Michael Min...	Merged in hero_images (pull request #13)	Feb 15, 2016, 10:...
246c4ff	Joel Unger...	Used TinyPNG to c...	Feb 11, 2016, 3:3...
9d9438c	Joel Unger...	Replacing hero images with new version of SourceTree	Feb 9, 2016, 2:59...
ce75b63	Michael Min...	Merged in bug/date-https (pull request #12)	Feb 15, 2016, 10:...
85367bb	Patrick Tho...	fixed date and https errors	Jan 7, 2016, 12:2...
4f9b557	Joel Unger...	New Favicon	Feb 8, 2016, 3:55...
384e6d5	Rahul Chhab...	search console google ver...	Feb 3, 2016, 2:09...
6fa47a9	Mike Minns...	updated to move supported version to OSX 10.9+	Dec 15, 2015, 2:0...
8dd87bb	Mike Minns...	remove extra , when a line is skipped due to empty server	Nov 23, 2015, 2:2...
faa195e	Mike Minns...	Skip records with empty server/user id as gas rejects them	Nov 23, 2015, 2:1...
0cdfa96	Mike Minns...	corrected paths after merge	Nov 23, 2015, 2:0...
051ab1b	Mike Minns...	corrected column counting	Nov 23, 2015, 1:5...
a723bc2	Mike Minns...	Merge branch 'au2gex'	Nov 23, 2015, 1:5...
65fd580	Mike Minns...	deal with invalid instanceids	Nov 23, 2015, 1:5...
500a892	Michael Min...	Merged in au2gex (pull request #11)	Nov 23, 2015, 1:0...

# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 다운로드 하기

- Atlassian Software License Agreement and Privacy Policy 에 체크하고 다운로드 버튼 클릭

The screenshot shows the Sourcetree website in a web browser. The main heading is "Simplicity and power in a beautiful Git GUI". There are buttons for "Download for Windows" and "Download for Mac OS X". A modal dialog box titled "Important Information" is open, displaying the "Atlassian Software License Agreement and Privacy Policy". The checkbox "I agree to the Atlassian Software License Agreement and Privacy Policy." is checked and highlighted with a red box. A red speech bubble with the text "Click!!!" points to the checkbox. Another red speech bubble with the text "Click!!!" points to the "Download" button at the bottom of the dialog. The background website content is dimmed.

Windows 정품 인증  
[설정]으로 이동하여 Windows를 정품 인증합니다.

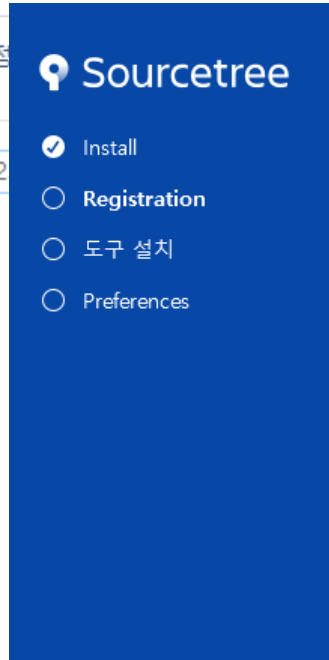
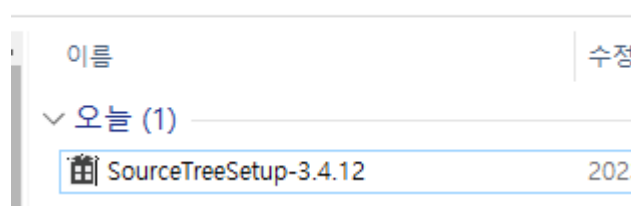


# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 설치하기

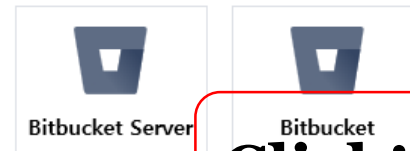
- SourceTreeSetup-3.4.12.exe 더블 클릭
- 건너뛰기 클릭

내 PC > 로컬 디스크 (C:) > 사용자 > k8s > 다운로드



### Registration

To use Sourcetree, log in with a Bitbucket or



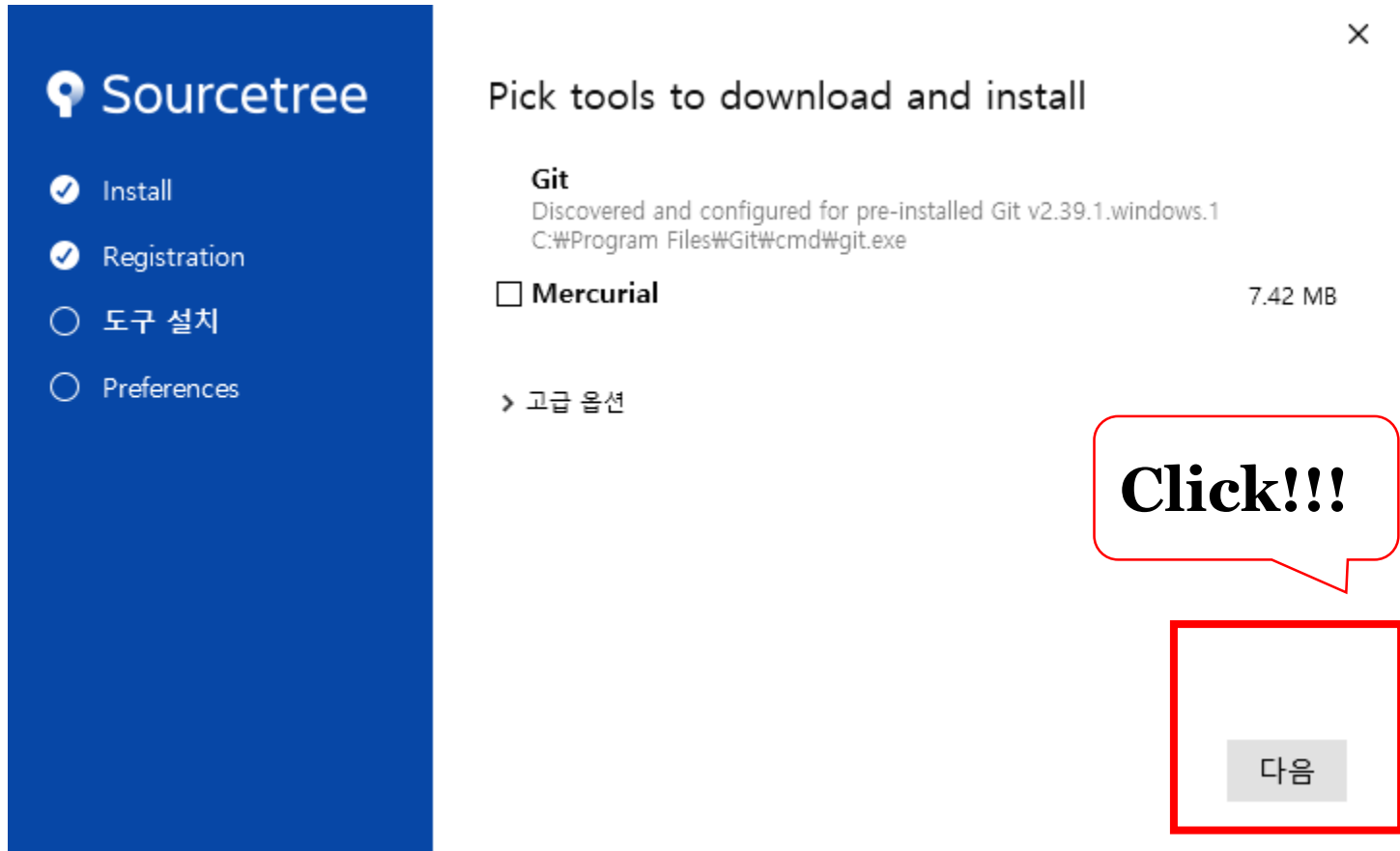
Don't have a Bitbucket Cloud account? [Create one for free.](#)

건너뛰기 다음

# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 설치하기

- Mercurial 체크 해제 후, 다음






# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 설치하기

### ● 설치 진행

 Sourcetree

☒ Install

☒ Registration

☐ 도구 설치

☐ Preferences

버전 관리 시스템 다운로드 중...

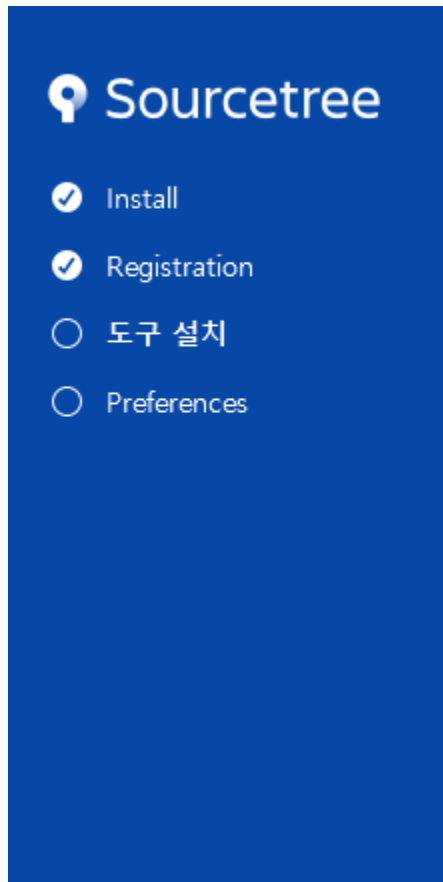
Downloading Git : 32%

다음

# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 설치하기

### ● 설치 완료



Tool installation completed.




다음

# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 설치하기

- 깃 계정

 Sourcetree

☒ Install

☒ Registration

☒ 도구 설치

☐ Preferences

Preferences

Before we finish, take a moment to configure these settings.

looker2zip

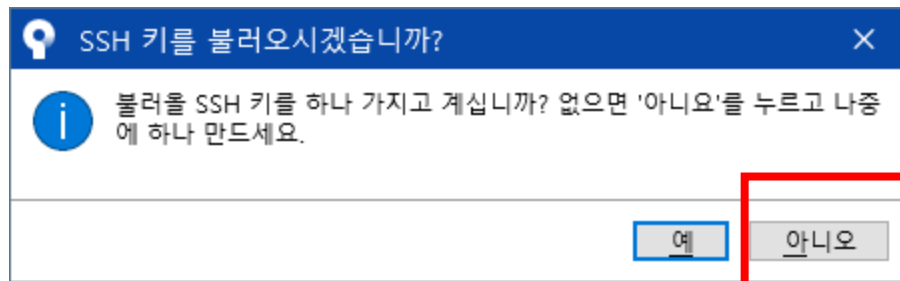
looker2zip@gmail.com

다음

# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 설치하기

- 아니오 클릭

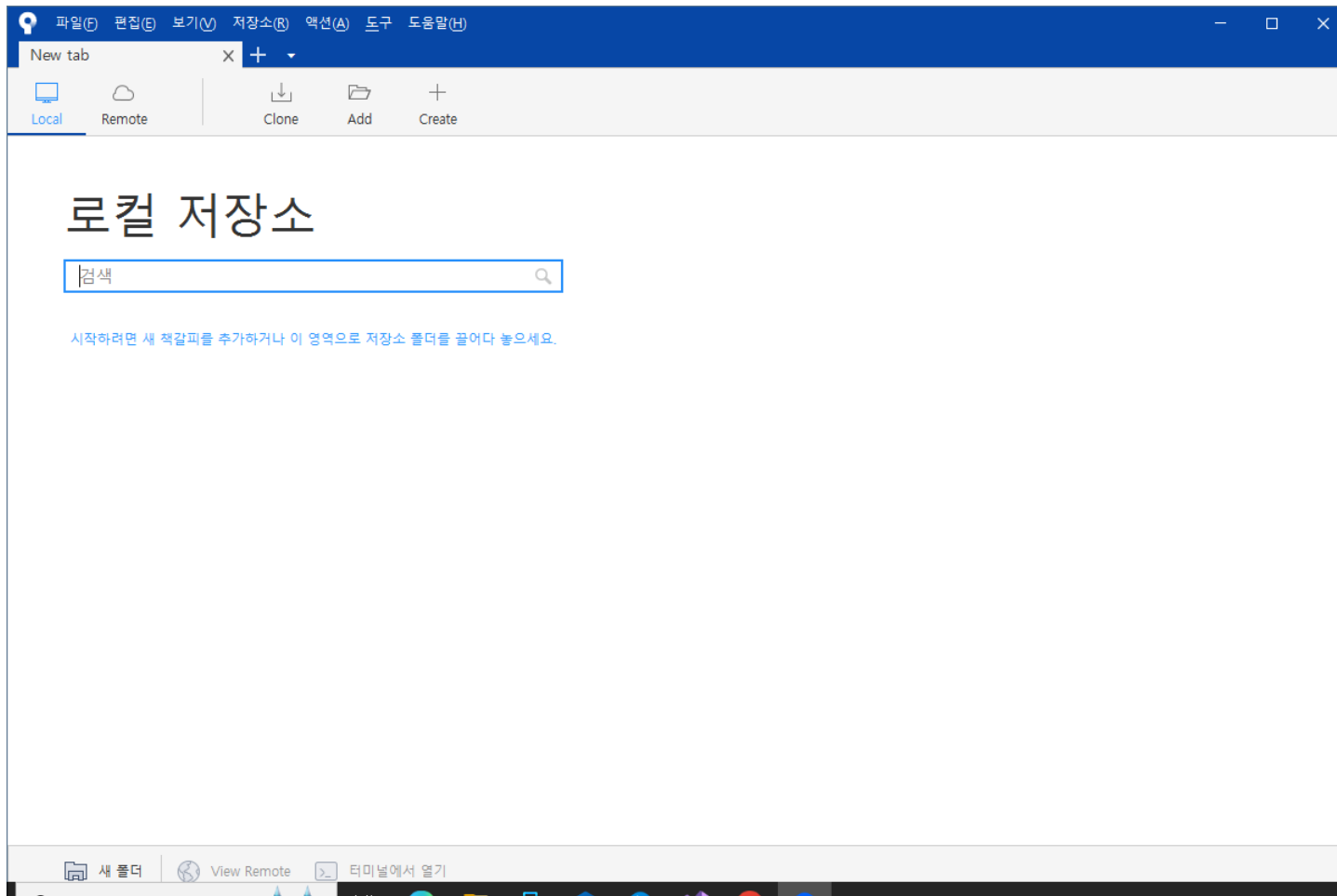


**Click!!!**

# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 설치하기

### ● 소스트리 메인 화면



# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 소스트리에서 GitHub 로그인하기

- Remote 탭을 클릭  
계정 추가  
Click!!!



원격 저장소

+ 계정 추가...

계정 변경

Click!!!

호스팅 계정 편집

Host

호스팅 서비스: Bitbucket

호스트 URL: https://bitbucket.org/

선택 프로토콜: HTTPS

Credentials

인증: OAuth

사용자명:

OAuth 토큰 새로고침

Need help logging into your account?

확인 취소



# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 소스트리에서 GitHub 로그인하기

- Remote 탭을 클릭
- 계정 추가

호스팅 계정 편집

Host

호스팅 서비스: Bitbucket

호스트 URL: Azure DevOps

선택 프로토콜: Bitbucket Server

인증: OAuth

사용자명: OAuth 토큰 새로고침

Need help logging into your account?

확인 취소

호스팅 계정 편집

Host

호스팅 서비스: GitHub

호스트 URL: https://github.com/

선택 프로토콜: HTTPS

인증: OAuth

사용자명: OAuth 토큰 새로고침

Need help logging into your account?

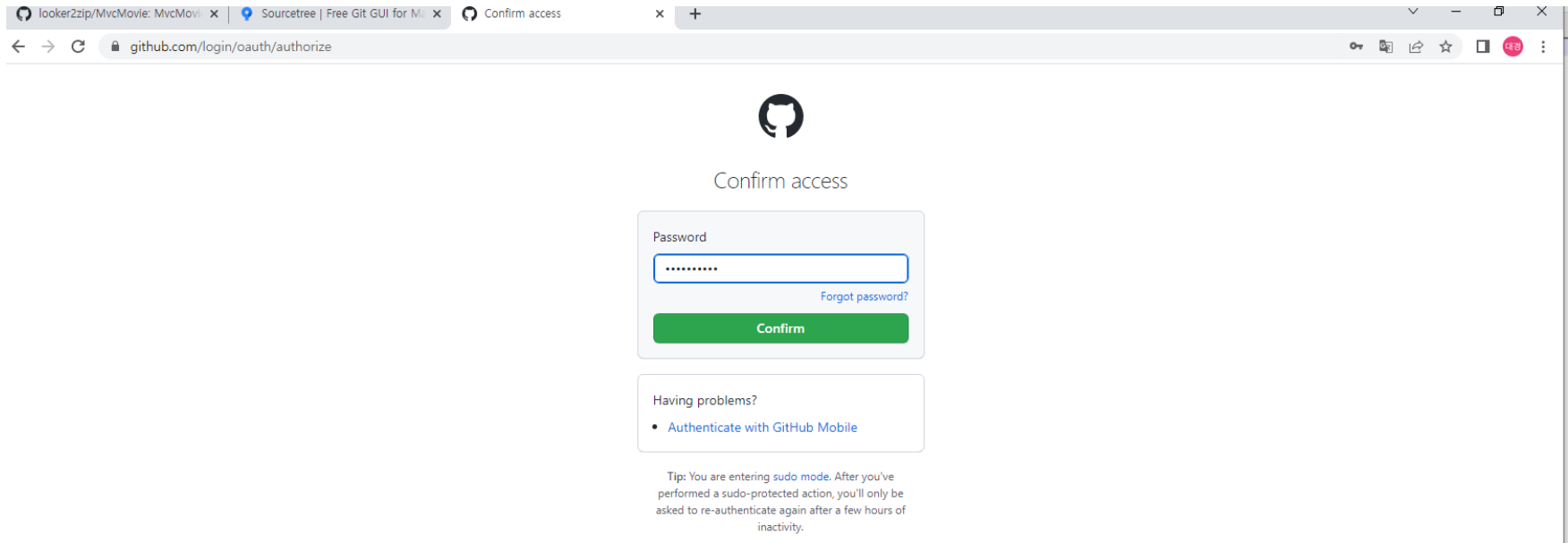
확인 취소

Click!!!

# 1. 내 컴퓨터에 소스트리 설치하기


## 소스트리 소스트리에서 GitHub 로그인하기

- Use your password 클릭



looker2zip/MvcMovie: MvcMovie x | Sourcetree | Free Git GUI for Mac x | Confirm access x +

github.com/login/oauth/authorize



Confirm access

Password

.....

[Forgot password?](#)

**Confirm**

Having problems?

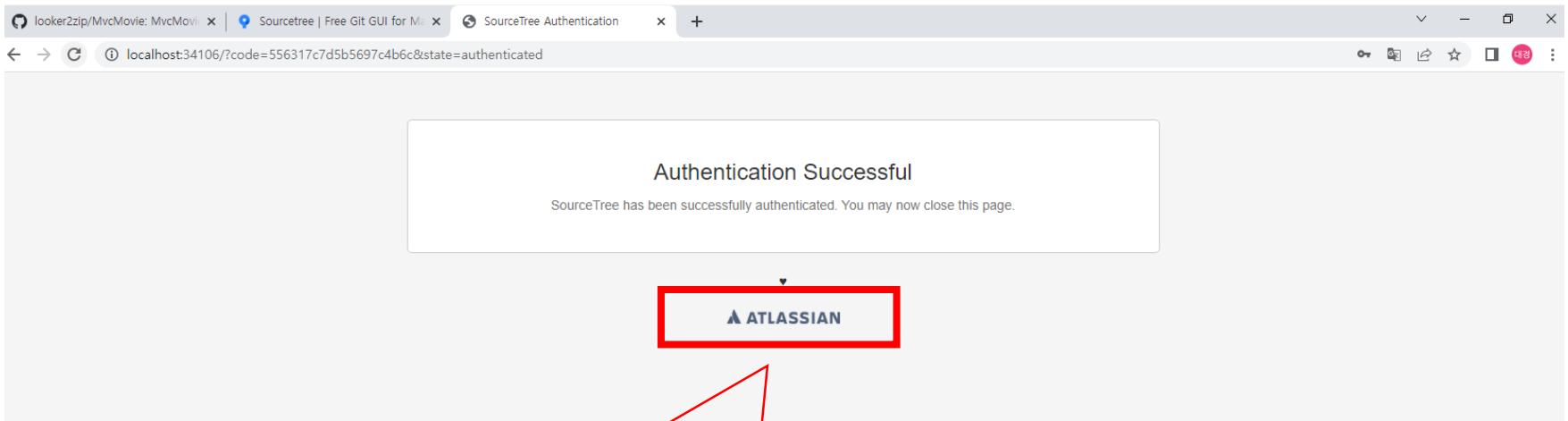
- [Authenticate with GitHub Mobile](#)

Tip: You are entering sudo mode. After you've performed a sudo-protected action, you'll only be asked to re-authenticate again after a few hours of inactivity.

# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 소스트리에서 GitHub 로그인하기

- A ATLASSIAN 클릭을 클릭해야 함



반반드시 Click해야 함!!!

# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 소스트리에서 GitHub 로그인하기

- 인증 성공

호스팅 계정 편집

Host

호스팅 서비스: GitHub

호스트 URL: https://github.com/

선택 프로토콜: HTTPS

Credentials

인증: OAuth

사용자명: looker2zip

OAuth 토큰 새로고침

Need help logging into your account?

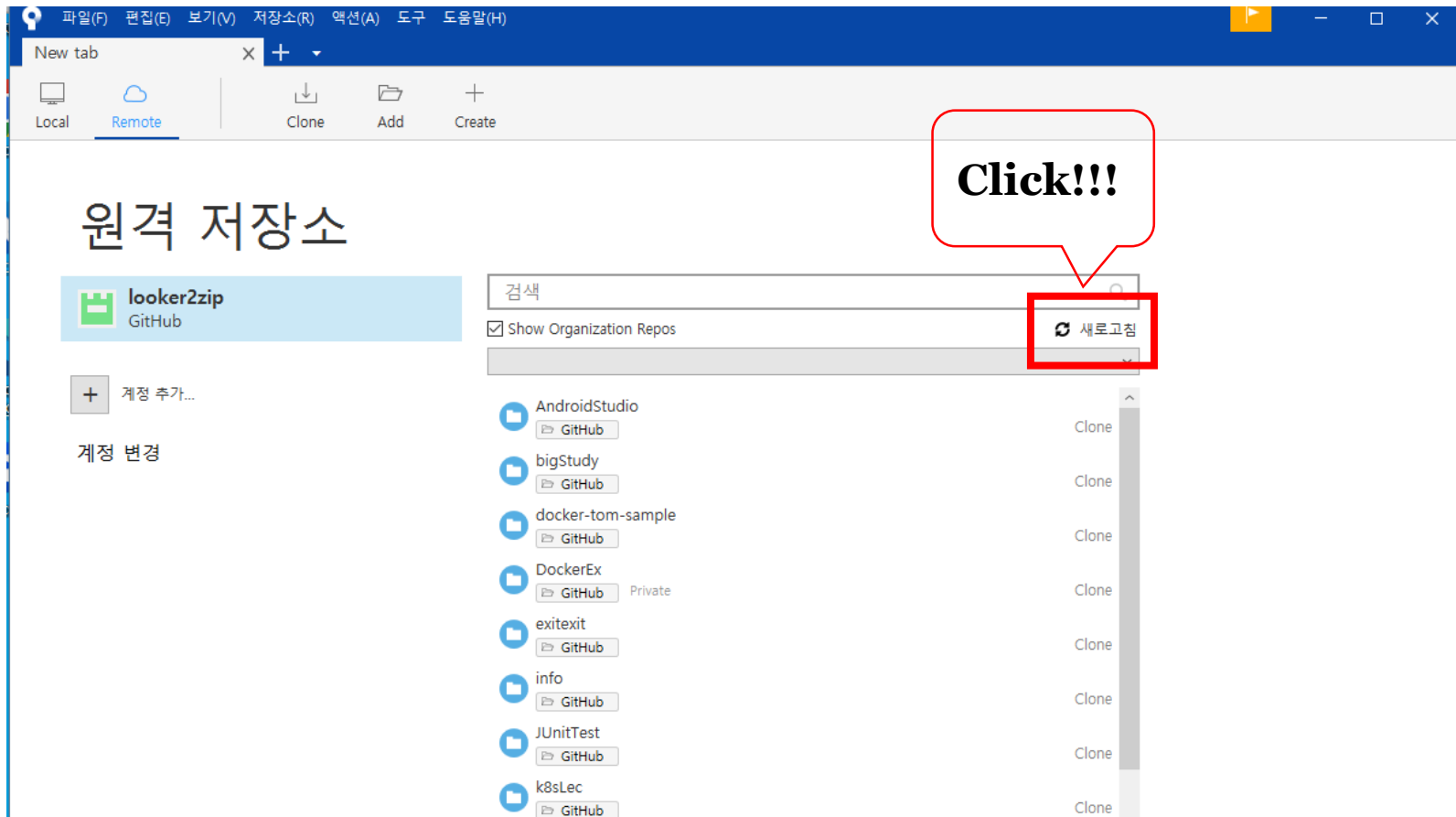
✓ 인증 성공

확인 취소

# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리 소스트리에서 GitHub 로그인하기

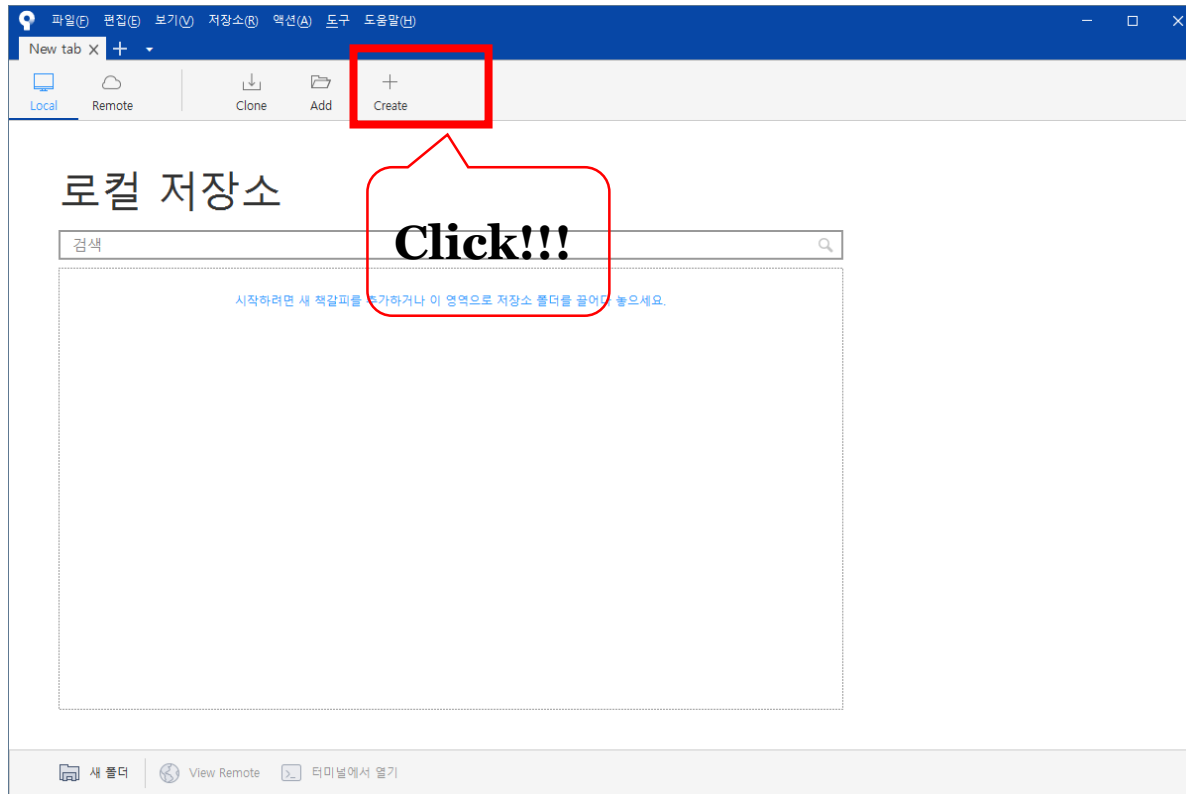
- 새로 고침을 클릭하면 원격 저장소 조회가 가능



# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리에서 깃 저장소 생성

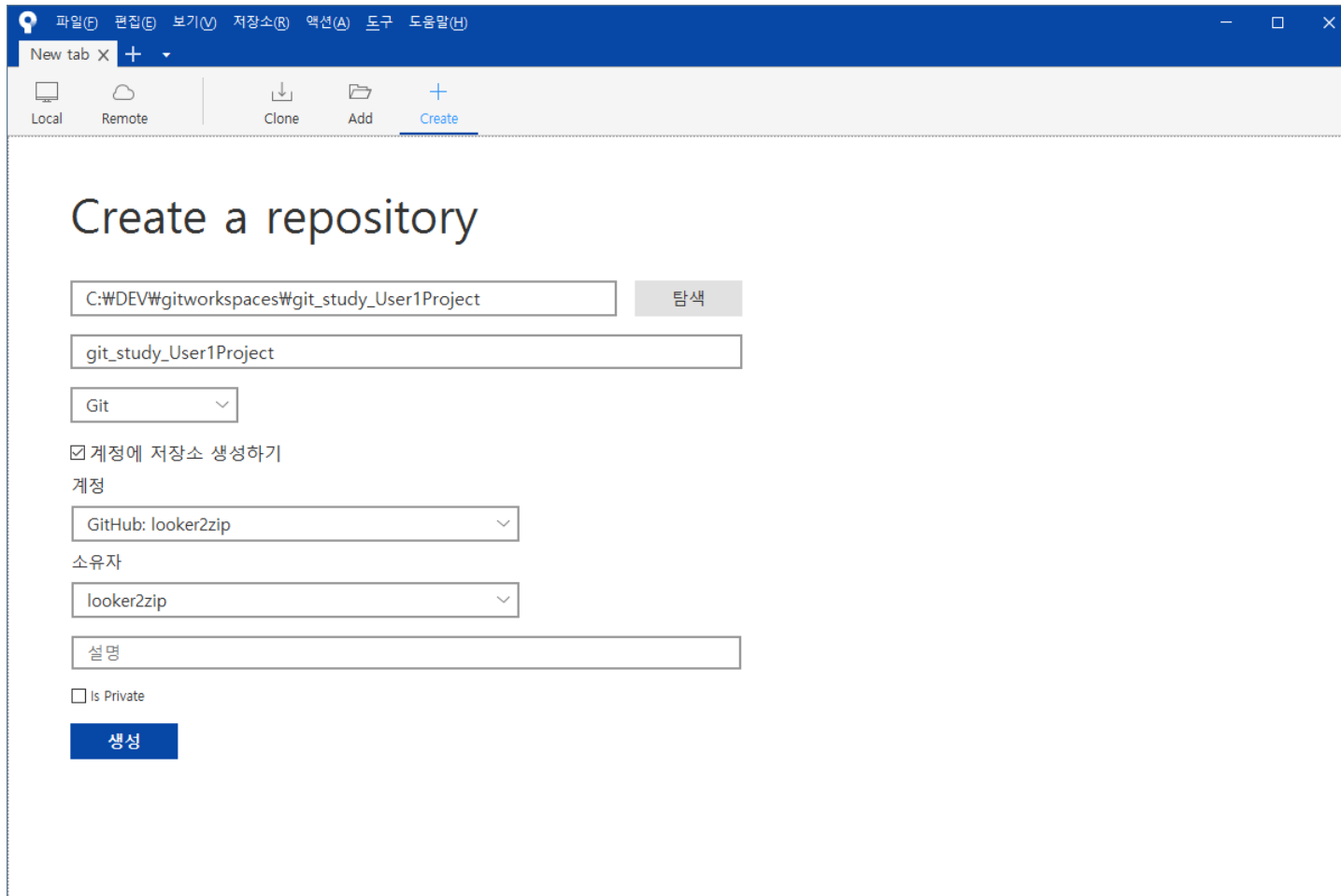
- 새로 고침을 클릭하면 원격 저장소 조회가 가능



# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리에서 깃 저장소 생성

- 새로 고침을 클릭하면 원격 저장소 조회가 가능

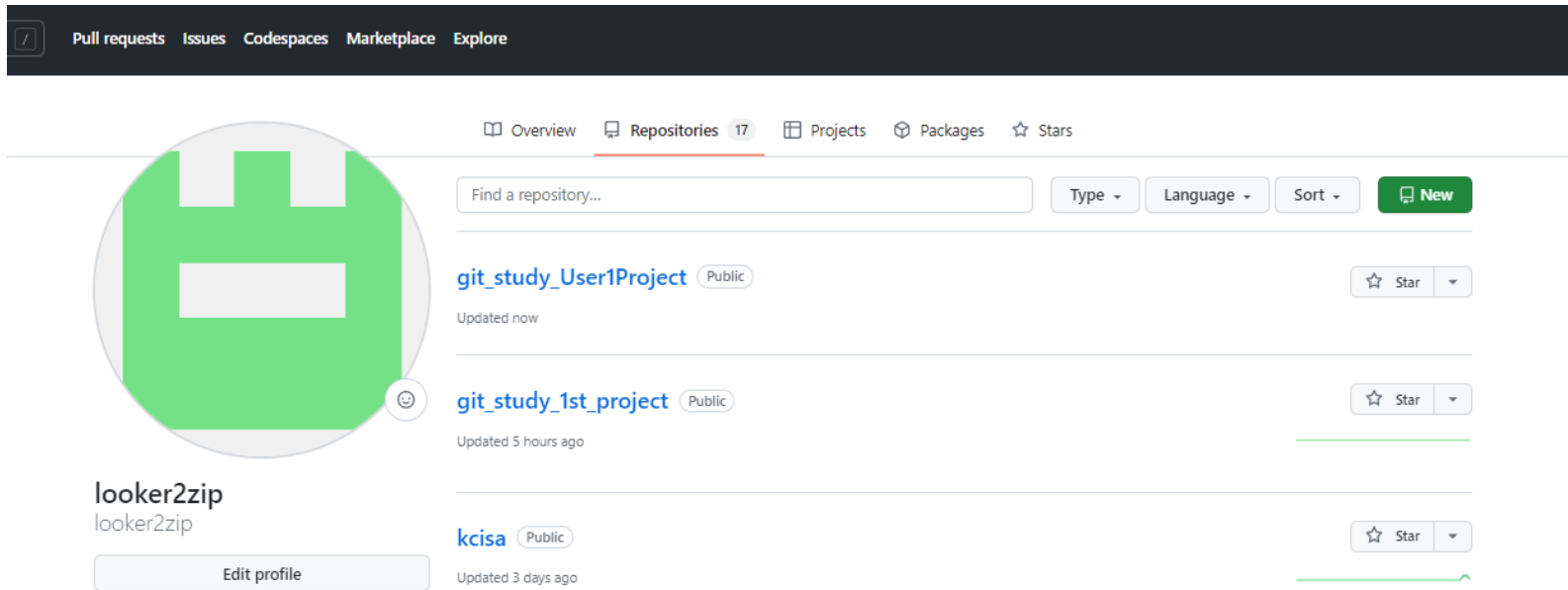


The screenshot displays the GitHub 'Create a repository' interface. At the top, there's a navigation bar with 'Local', 'Remote', 'Clone', 'Add', and 'Create' tabs. The 'Create' tab is active. Below the tabs, the title 'Create a repository' is prominently displayed. The form includes a text input for the repository name, currently containing 'C:\DEV\gitworkspaces\git\_study\_User1Project', with a '검색' (Search) button to its right. Below this is another text input for the repository name, containing 'git\_study\_User1Project'. A dropdown menu for the provider is set to 'Git'. There's a checkbox labeled '계정에 저장소 생성하기' (Create repository on account) which is checked. Below this, there are two dropdown menus: '계정' (Account) set to 'GitHub: looker2zip' and '소유자' (Owner) set to 'looker2zip'. A text input for '설명' (Description) is also present. At the bottom, there's a checkbox for 'Is Private' which is unchecked, and a blue '생성' (Create) button.

# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리에서 깃 저장소 생성

- 새로 고침을 클릭하면 원격 저장소 조회가 가능



The screenshot shows the GitHub interface for a user named 'looker2zip'. The top navigation bar includes links for Pull requests, Issues, Codespaces, Marketplace, and Explore. The user's profile section on the left shows a green square avatar and the name 'looker2zip' with an 'Edit profile' button. The main content area is titled 'Repositories' and shows a list of three public repositories: 'git\_study\_User1Project' (updated now), 'git\_study\_1st\_project' (updated 5 hours ago), and 'kcisa' (updated 3 days ago). Each repository entry includes a search bar, filters for Type, Language, and Sort, and a 'New' button. The 'Star' button is also visible for each repository.



# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리에서 깃 저장소 생성

- 새로 고침을 클릭하면 원격 저장소 조회가 가능

The screenshot shows the GitHub interface for creating a new repository. At the top, there's a navigation bar with links like 'Pull requests', 'Issues', 'Codespaces', 'Marketplace', and 'Explore'. Below this, the repository name 'Project' is shown with a 'Public' badge. A secondary navigation bar includes 'Actions', 'Projects', 'Wiki', 'Security', 'Insights', and 'Settings'. Two main action cards are visible: 'Set up GitHub Copilot' and 'Invite collaborators'. The 'Quick setup' section offers options to 'Set up in Desktop' or use 'HTTPS' or 'SSH' with a pre-filled URL. Below this, a section titled '...or create a new repository on the command line' provides a list of terminal commands to initialize a repository, create a README, commit, and push to GitHub.

Public

Actions Projects Wiki Security Insights Settings

**Set up GitHub Copilot**  
Use GitHub's AI pair programmer to autocomplete suggestions as you code.

**Invite collaborators**  
Find people using their GitHub username or email address.

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

Set up in Desktop or HTTPS SSH `https://github.com/looker2zip/git_study_User1Project.git`

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

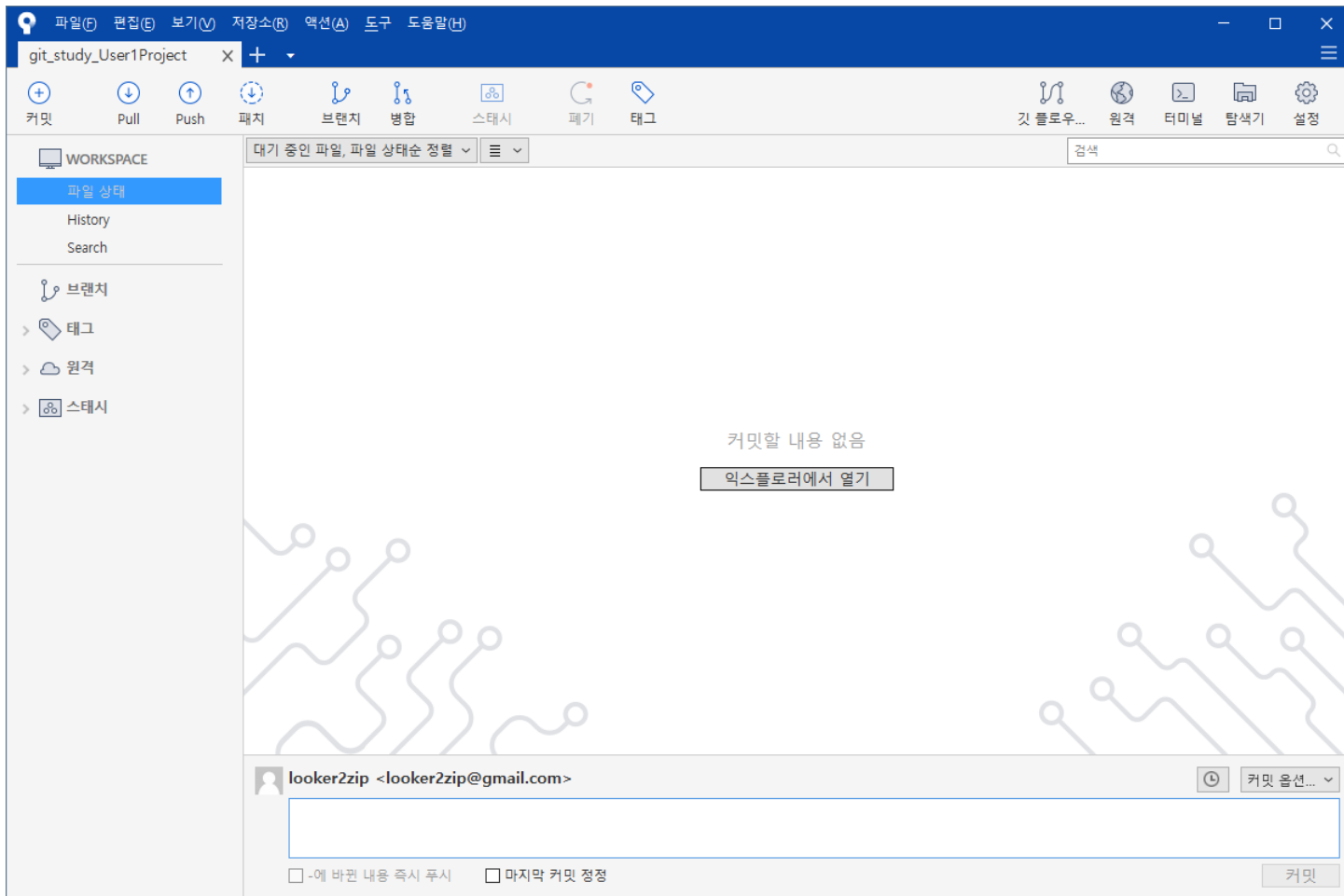
**...or create a new repository on the command line**

```
echo "# git_study_User1Project" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/looker2zip/git_study_User1Project.git
git push -u origin main
```

# 1. 내 컴퓨터에 소스트리 설치하기

## 소스트리에서 깃 저장소 생성

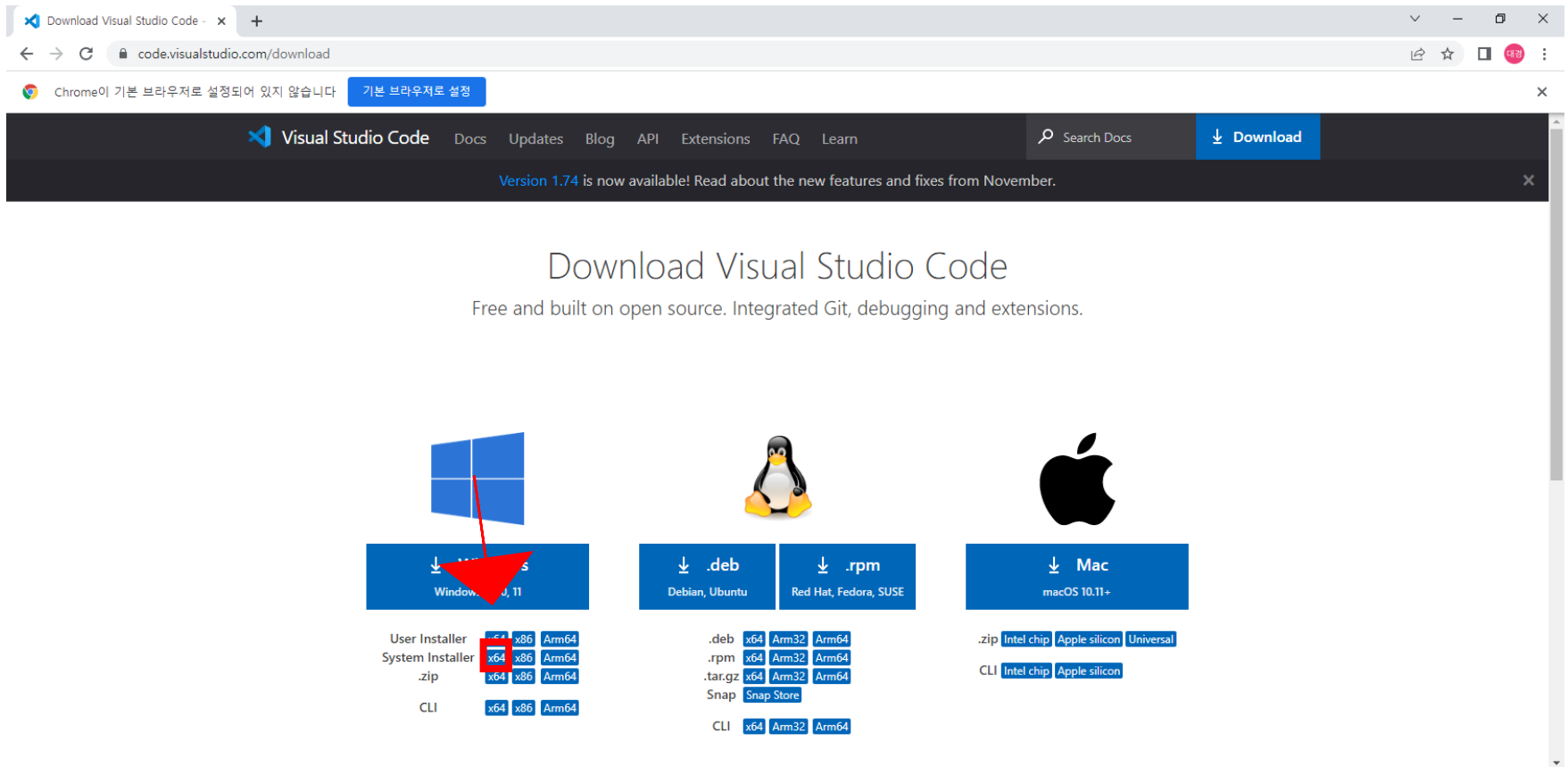
- 새로 고침을 클릭하면 원격 저장소 조회가 가능



# 2. Visual Studio Code 설치하기

## Visual Studio Code 설치

<https://code.visualstudio.com/download>



The screenshot shows the Visual Studio Code download page in a Chrome browser. The page title is "Download Visual Studio Code" and the URL is "code.visualstudio.com/download". The page features a navigation bar with links to Docs, Updates, Blog, API, Extensions, FAQ, and Learn. A "Download" button is prominently displayed. Below the navigation bar, the page states "Version 1.74 is now available! Read about the new features and fixes from November." The main content area is titled "Download Visual Studio Code" and describes it as "Free and built on open source. Integrated Git, debugging and extensions." The page is divided into three main sections for different operating systems: Windows, Linux, and Mac. Each section has a download button and a list of available installers or packages. A red arrow points to the "Windows" section.

Visual Studio Code Docs Updates Blog API Extensions FAQ Learn

Search Docs Download

Version 1.74 is now available! Read about the new features and fixes from November.

### Download Visual Studio Code

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

**Windows** (Windows 10, 11)

- User Installer: x64, x86, Arm64
- System Installer: x64, x86, Arm64
- .zip: x64, x86, Arm64
- CLI: x64, x86, Arm64

**Linux** (Debian, Ubuntu, Red Hat, Fedora, SUSE)

- .deb: x64, Arm32, Arm64
- .rpm: x64, Arm32, Arm64
- .tar.gz: x64, Arm32, Arm64
- Snap: Snap Store
- CLI: x64, Arm32, Arm64

**Mac** (macOS 10.11+)

- .zip: Intel chip, Apple silicon, Universal
- CLI: Intel chip, Apple silicon

## 2. Visual Studio Code 설치하기

### Visual Studio Code 설치

User Installer, System Installer, zip 압축파일이 배포되고 있습니다.

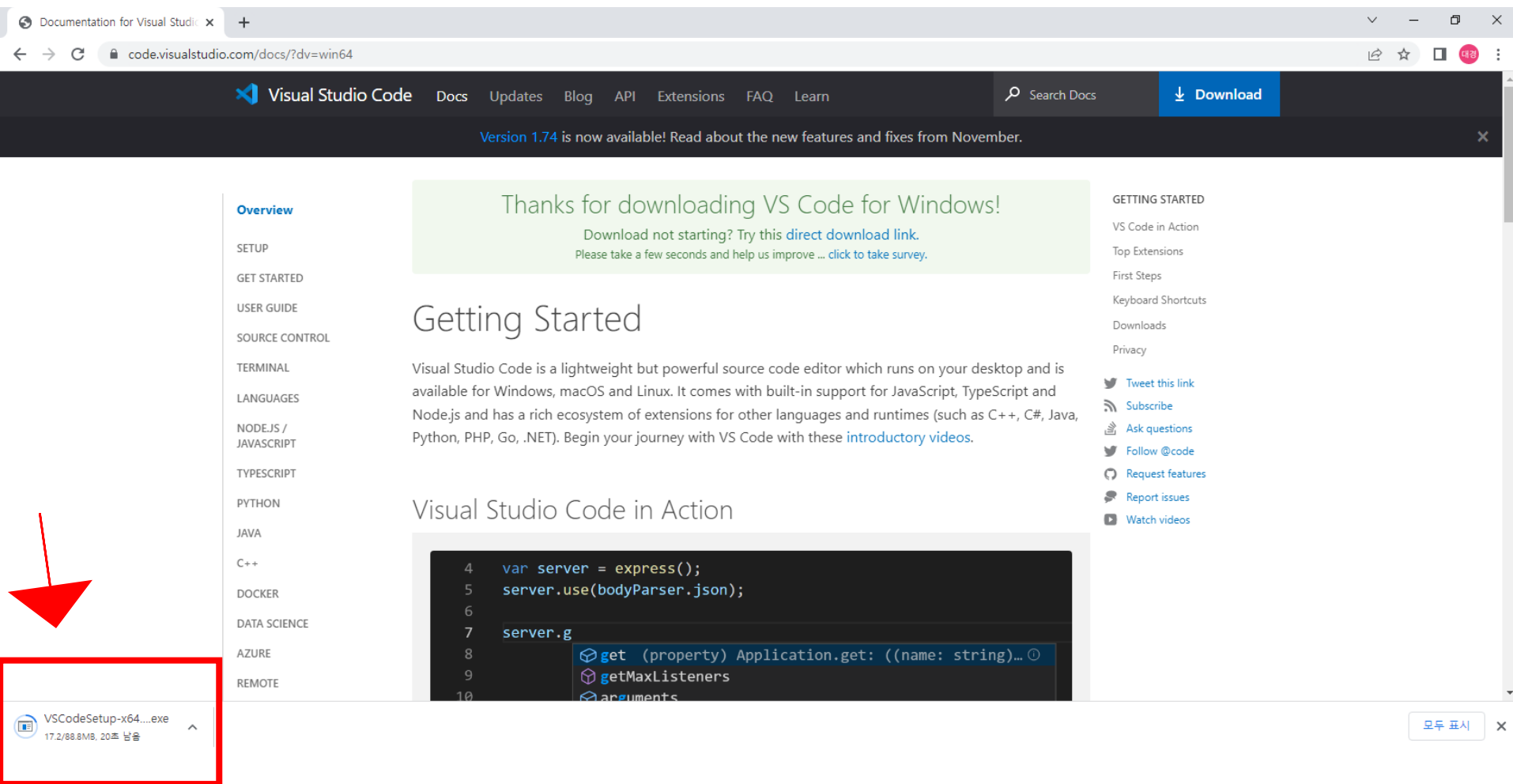
- User Installer의 경우 다음 위치에 설치되며 유저 인터페이스의 디폴트 언어가 영어가 됩니다.
- C:\Users\사용자이름  
  \AppData\Local\Programs\Microsoft VS Code
- System Installer의 경우에는 다음 위치에 설치되며 유저 인터페이스의 디폴트 언어가 영어가 됩니다.

C:\Program Files\Microsoft VS Code

# 2. Visual Studio Code 설치하기

## Visual Studio Code 설치

### • System Installer x64를 설치



The screenshot shows the Visual Studio Code documentation website. The left sidebar contains a list of links, with 'VSCodeSetup-x64....exe' highlighted by a red box and a red arrow pointing to it. The main content area displays the 'Getting Started' section, which includes a message about downloading VS Code for Windows, a list of links for getting started, and a code snippet for setting up an Express.js server.

Documentation for Visual Studio Code

code.visualstudio.com/docs?dv=win64

Visual Studio Code Docs Updates Blog API Extensions FAQ Learn

Search Docs

Download

Version 1.74 is now available! Read about the new features and fixes from November.

Overview

SETUP

GET STARTED

USER GUIDE

SOURCE CONTROL

TERMINAL

LANGUAGES

NODEJS / JAVASCRIPT

TYPESCRIPT

PYTHON

JAVA

C++

DOCKER

DATA SCIENCE

AZURE

REMOTE

VSCodeSetup-x64....exe  
17.2/88.8MB, 20초 남음

Thanks for downloading VS Code for Windows!

Download not starting? Try this [direct download link](#).  
Please take a few seconds and help us improve ... [click to take survey](#).

## Getting Started

Visual Studio Code is a lightweight but powerful source code editor which runs on your desktop and is available for Windows, macOS and Linux. It comes with built-in support for JavaScript, TypeScript and Node.js and has a rich ecosystem of extensions for other languages and runtimes (such as C++, C#, Java, Python, PHP, Go, .NET). Begin your journey with VS Code with these [introductory videos](#).

## Visual Studio Code in Action

```
4 var server = express();
5 server.use(bodyParser.json);
6
7 server.get('/', function(req, res) {
8   res.json({name: 'Express'});
9 });
10
```

GETTING STARTED

VS Code in Action

Top Extensions

First Steps

Keyboard Shortcuts

Downloads

Privacy

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모두 표시

# 2. Visual Studio Code 설치하기

## Visual Studio Code 설치

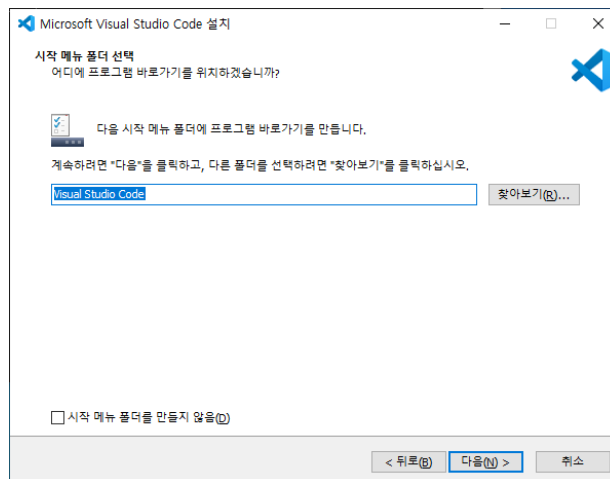
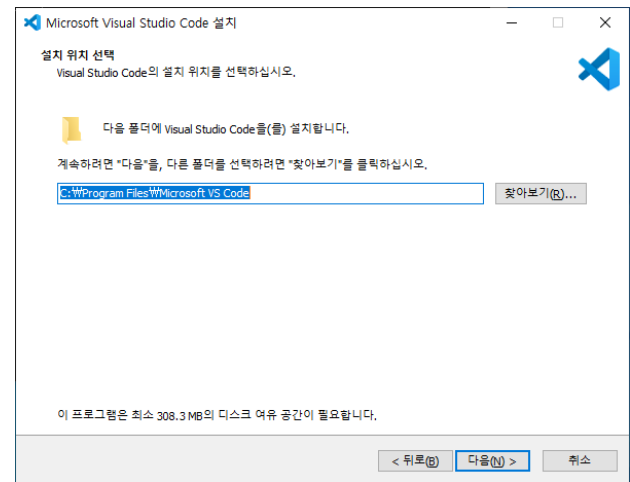
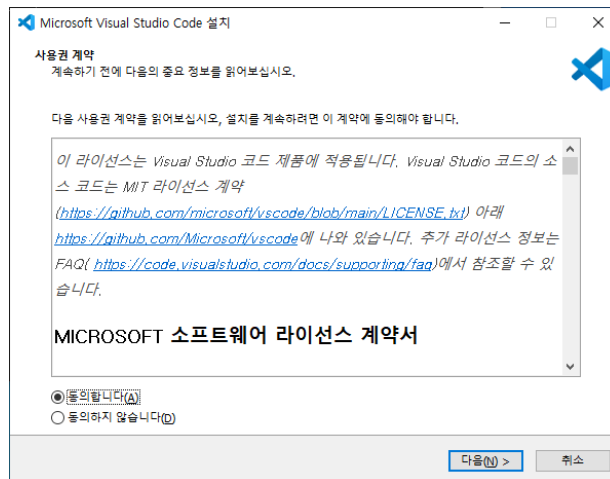
## Visual Studio Code 설치

내 PC > 다운로드

이름

✓ 오늘 (1)

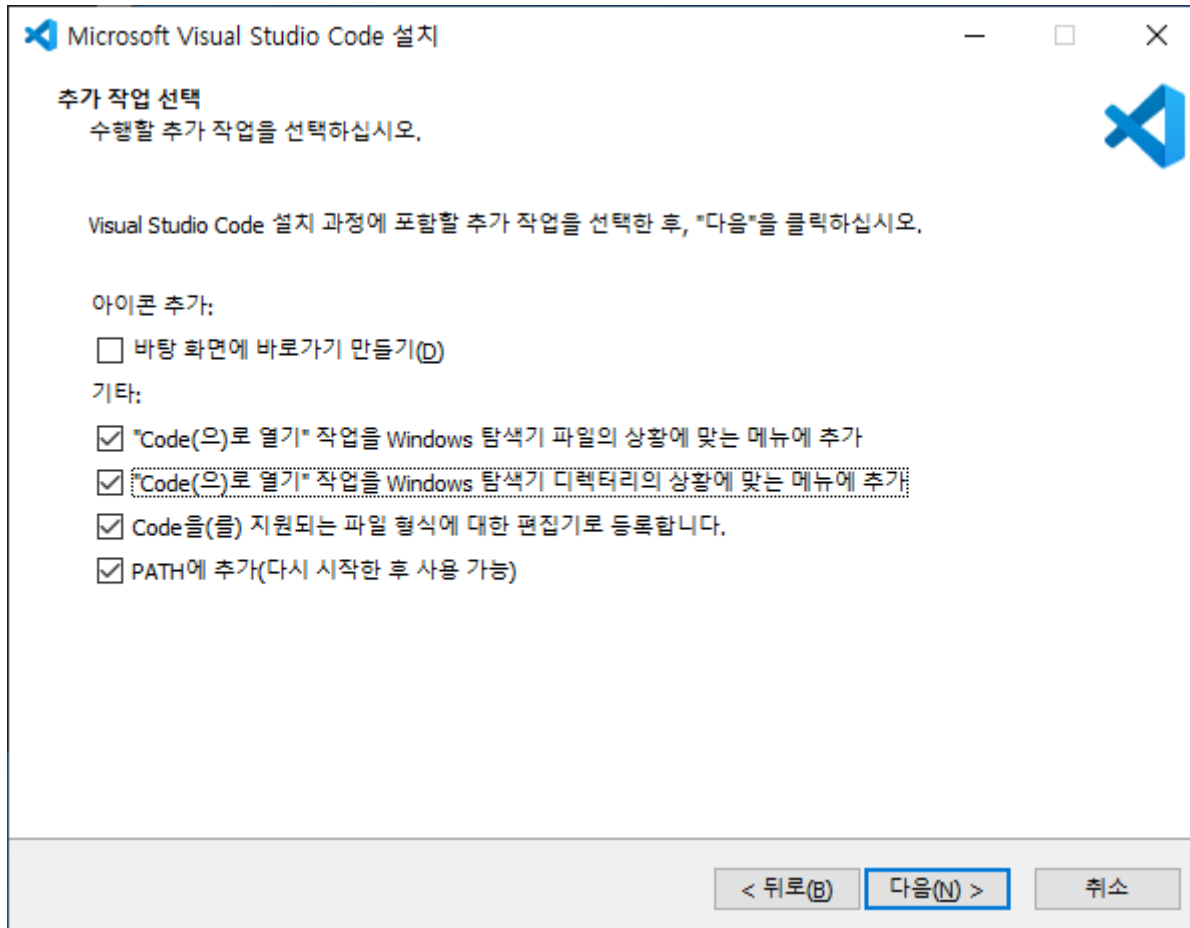
VSCodeSetup-x64-1.74.3



# 2. Visual Studio Code 설치하기

## Visual Studio Code 설치

## Visual Studio Code 설치



Microsoft Visual Studio Code 설치

추가 작업 선택  
수행할 추가 작업을 선택하십시오.

Visual Studio Code 설치 과정에 포함할 추가 작업을 선택한 후, "다음"을 클릭하십시오.

아이콘 추가:

☐ 바탕 화면에 바로가기 만들기(D)

기타:

☒ "Code(으)로 열기" 작업을 Windows 탐색기 파일의 상황에 맞는 메뉴에 추가

☒ "Code(으)로 열기" 작업을 Windows 탐색기 디렉터리의 상황에 맞는 메뉴에 추가

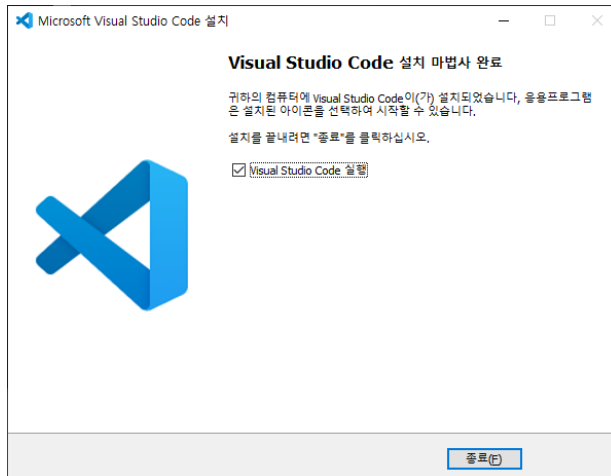
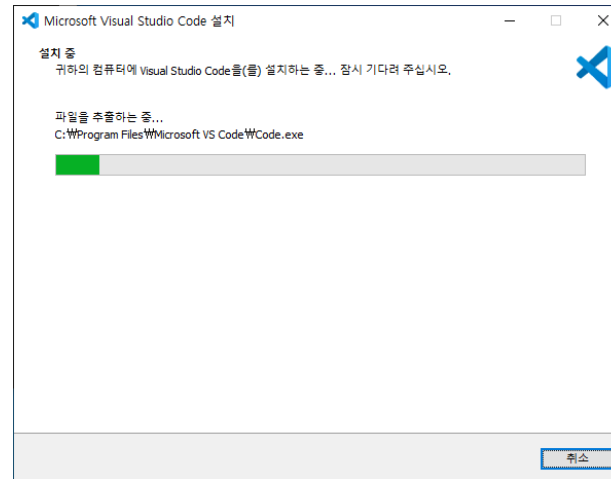
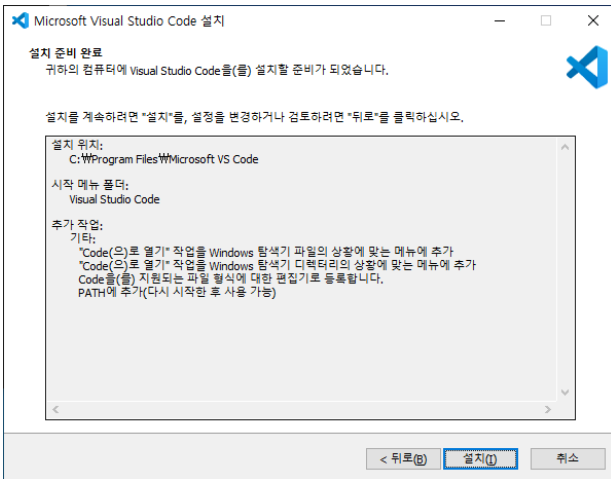
☒ Code을(를) 지원하는 파일 형식에 대한 편집기로 등록합니다.

☒ PATH에 추가(다시 시작한 후 사용 가능)

< 뒤로(B)   다음(N) >   취소

# 2. Visual Studio Code 설치하기

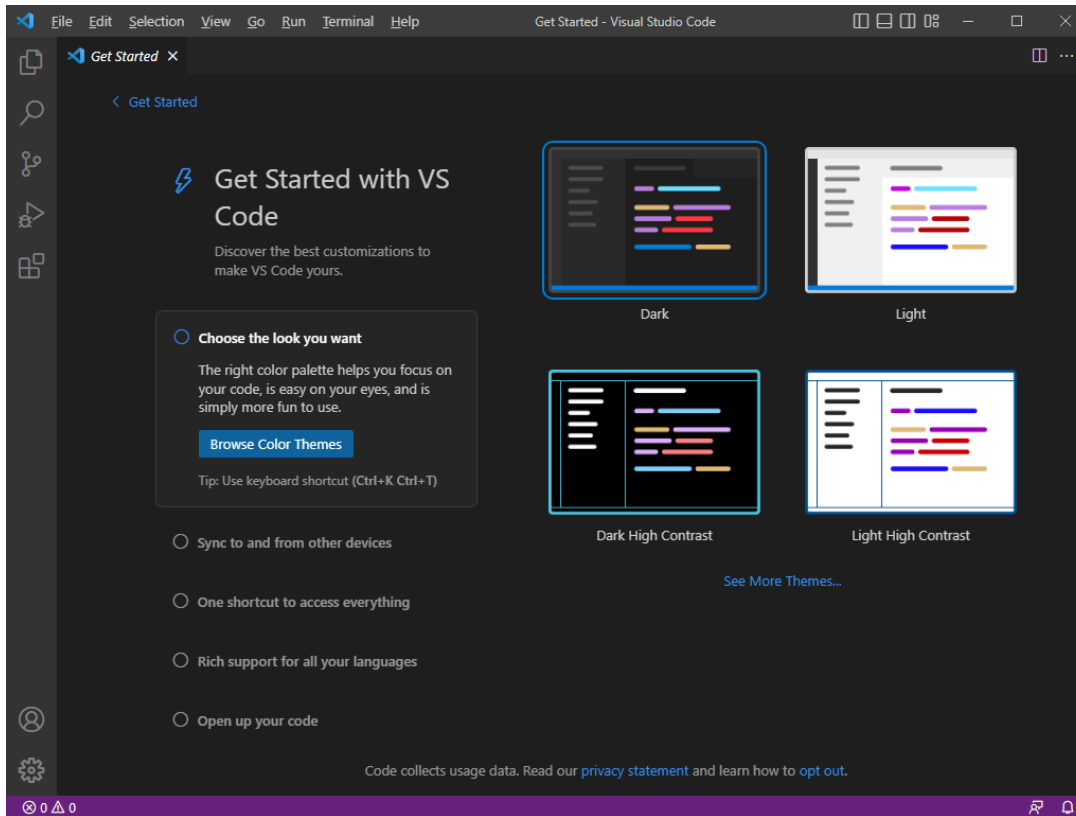
## Visual Studio Code 설치





# 2. Visual Studio Code 설치하기

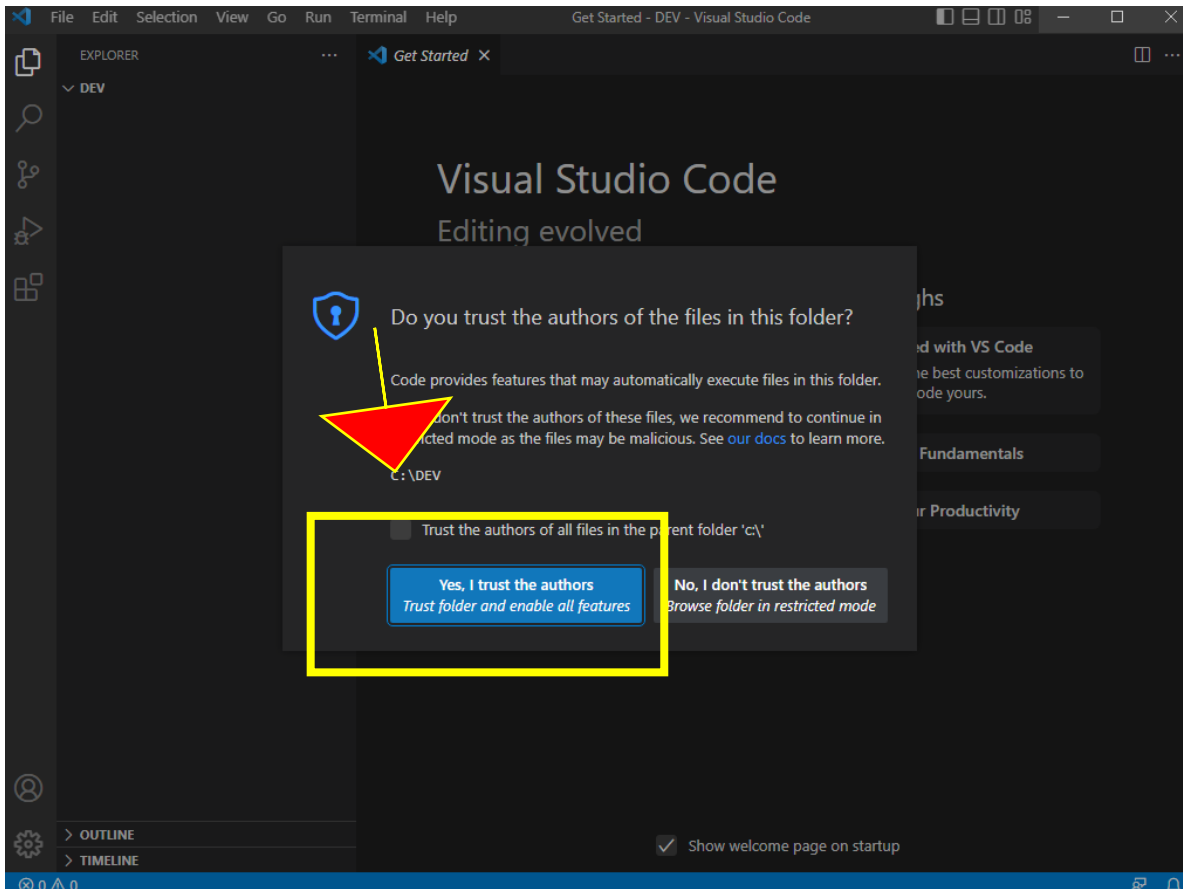
## Visual Studio Code 설치



# 2. Visual Studio Code 설치하기

## Visual Studio Code 설치

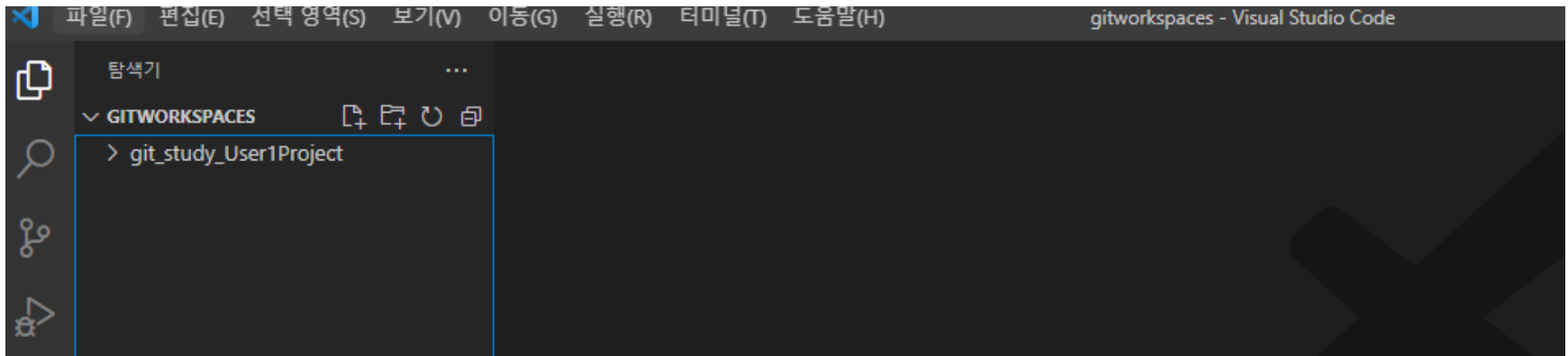
❖ Visual Studio Code를 실행하여 메뉴에서 File > Open Folder를 선택



## 2. Visual Studio Code 설치하기

### Visual Studio Code 설치

❖ Visual Studio Code를 실행하여 메뉴에서 File > Open Folder를 선택





### 3. 소스트리 기본 수행

## VSCode로 파일 만들고 수정하기

- VSCode 기본 명령어

Show All Commands `Ctrl` + `Shift` + `P`

Open File `Ctrl` + `O`

Open Folder `Ctrl` + `K` `Ctrl` + `O`

Open Recent `Ctrl` + `R`

# 3. 소스트리 기본 수행

## VSCode로 파일 만들고 수정하기

```
pro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces  
$ cd git_study_User1Project/
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_User1Project (main)  
$ ls -al  
total 8  
drwxr-xr-x 1 apro621 197121 0 6월 4 20:37 ./  
drwxr-xr-x 1 apro621 197121 0 6월 4 20:35 ../  
drwxr-xr-x 1 apro621 197121 0 6월 4 20:37 .git/
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_User1Project (main)  
$ echo >> TimesTable.md
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_User1Project (main)  
$ echo >> README.txt
```

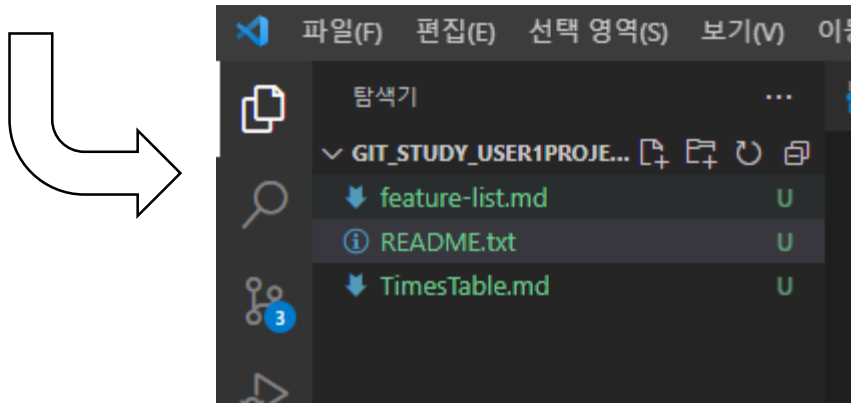
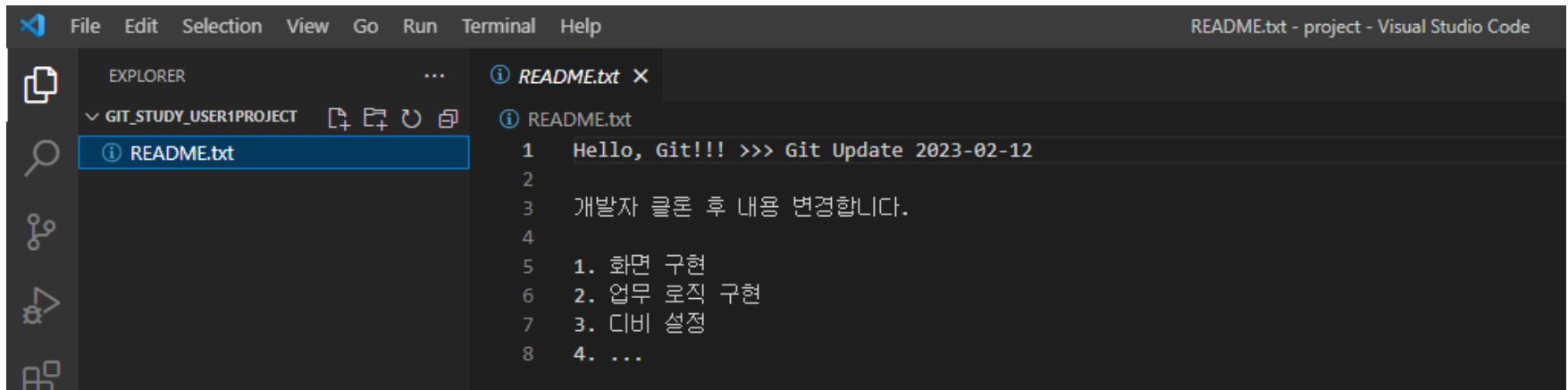
```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_User1Project (main)  
$ echo >> feature-list.md
```

```
apro621@DESKTOP-CL1JPPC MINGW64 /c/DEV/gitworkspaces/git_study_User1Project (main)  
$
```

# 3. 소스트리 기본 수행

## VSCoode로 파일 만들고 수정하기

- VSCoode 새 파일 클릭 > TimesTable.md 입력



# 3. 소스트리 기본 수행

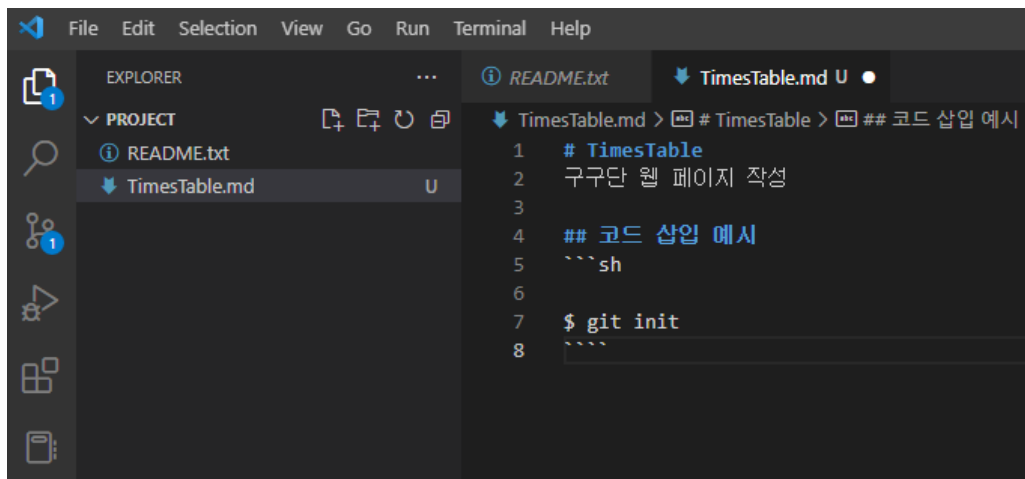
## VSCoDe로 파일 만들고 수정하기

- VSCoDe 새 파일 클릭 > TimesTable.md 입력

```
# TimesTable  
구구단 웹 페이지 작성
```

```
## 코드 삽입 예시  
``sh
```

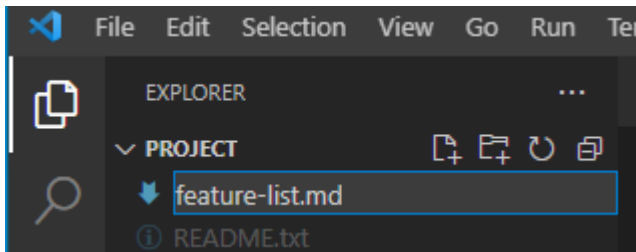
```
$ git init  
````
```



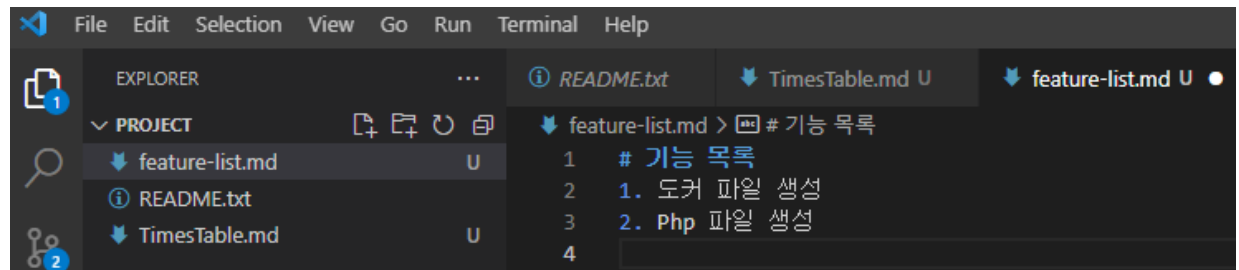
# 3. 소스트리 기본 수행

## VSCode로 파일 만들고 수정하기

- VSCode 새 파일 클릭 > feature-list.md 입력



# 기능 목록  
1. 도커 파일 생성  
2. Php 파일 생성  
````

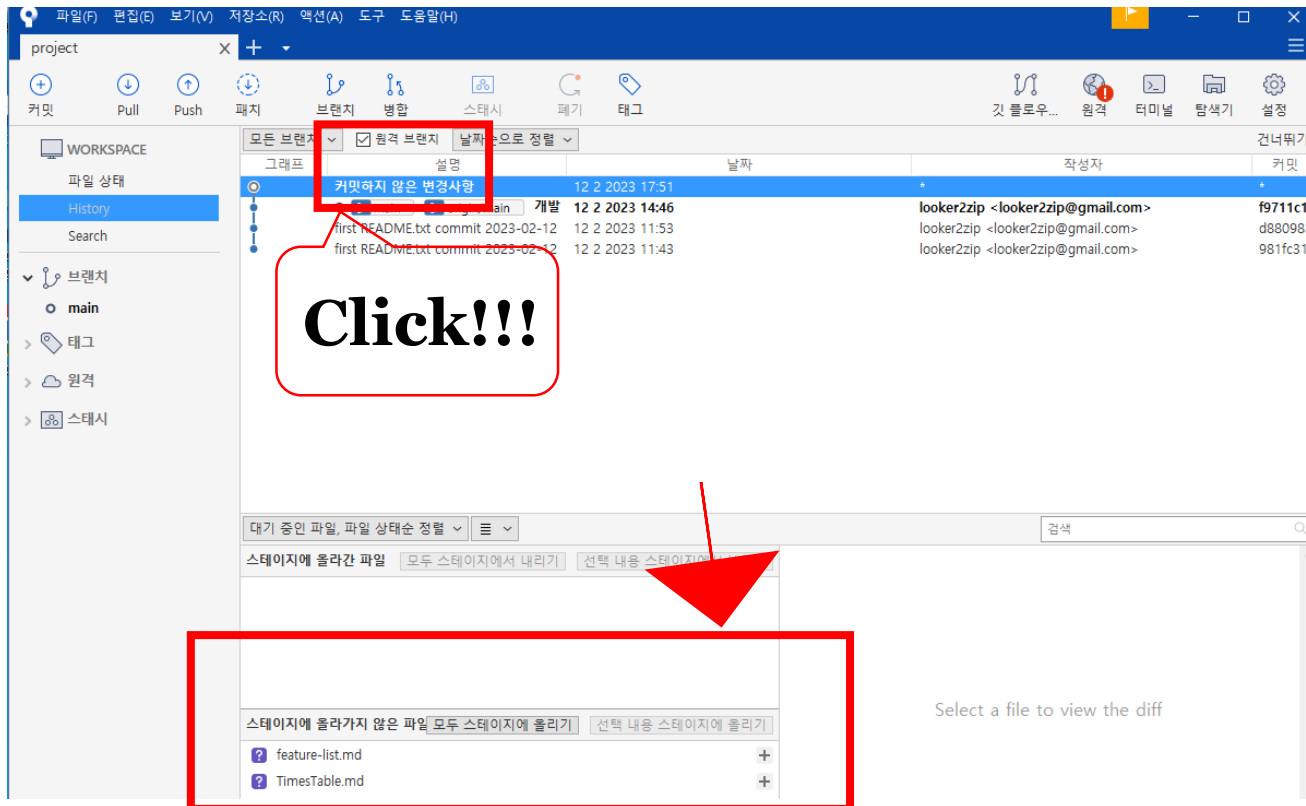




### 3. 소스트리 기본 수행

## 소스트리에서 파일을 선택하고 커밋하기

- 소스트리로 돌아보면 그래프 최상단에 ‘커밋하지 않은 변경사항’이 보임
- 이 텍스트를 클릭하면 소스트리 하단 [스테이지에 올라가지 않은 파일] 섹션에 방금 만든 파일 2개가 보임



# 3. 소스트리 기본 수행

## 커밋

- 우상단에 커밋 아이콘을 클릭

Click!!!

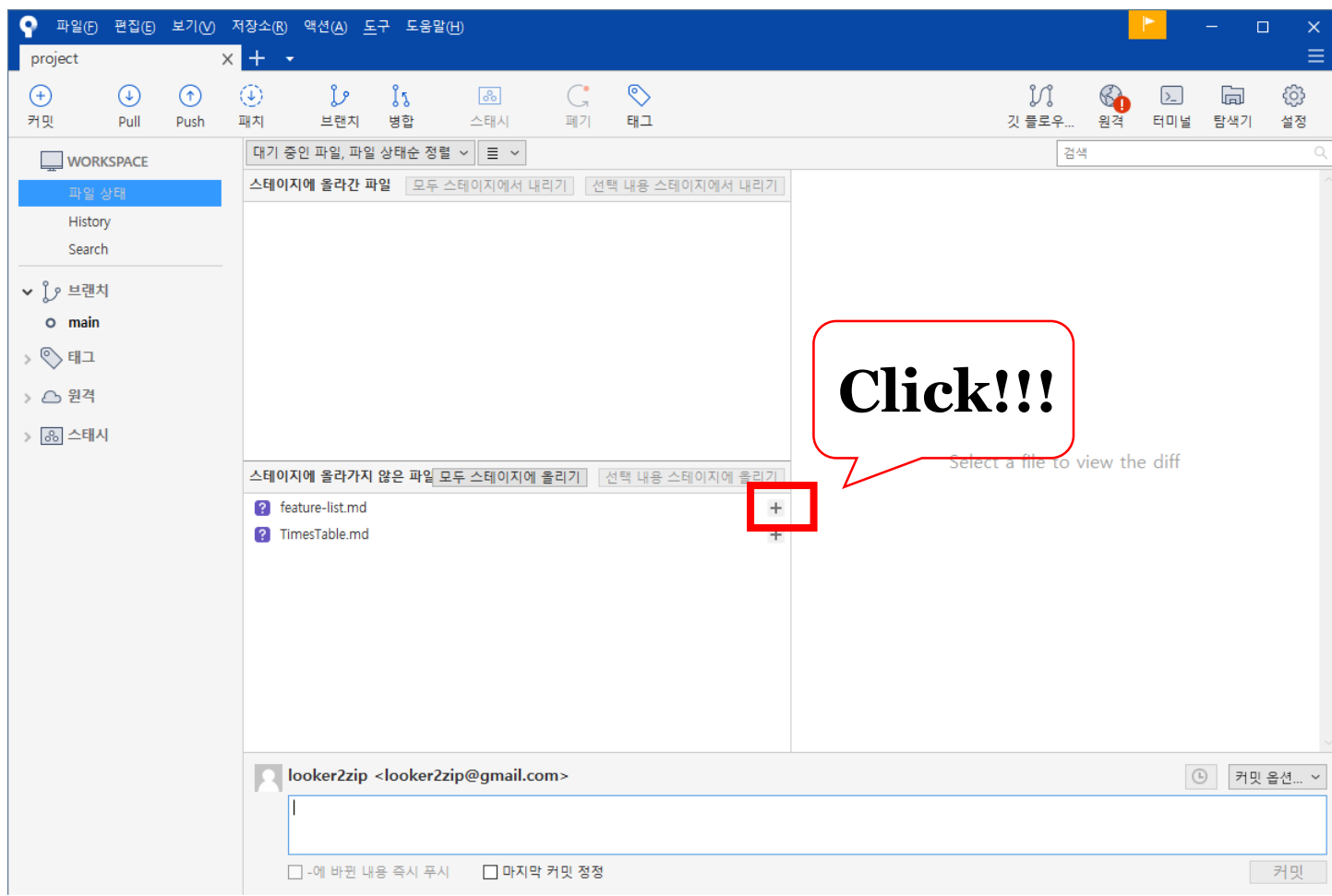
그래프	설명	날짜	작성자	커밋
● main	커밋하지 않은 변경사항	12 2 2023 17:51	looker2zip <looker2zip@gmail.com>	f9711c1
● main	first README.txt commit 2023-02-12	12 2 2023 11:53	looker2zip <looker2zip@gmail.com>	d880983
● main	first README.txt commit 2023-02-12	12 2 2023 11:43	looker2zip <looker2zip@gmail.com>	981fc31

Select a file to view the diff

# 3. 소스트리 기본 수행

## 커밋

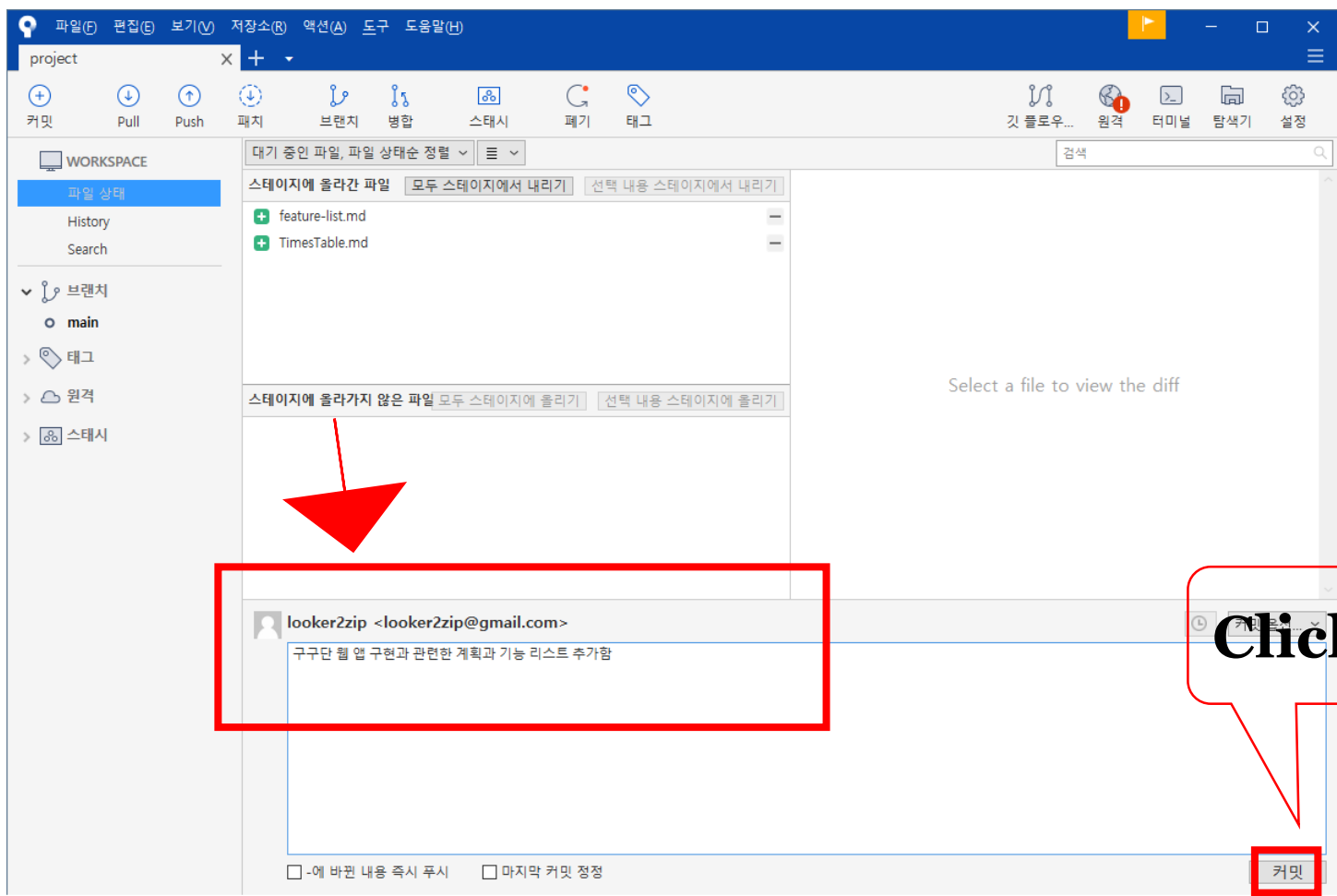
- 나누어진 스테이지 뷰에서 feature-list.md와 TimesTable.md [+ ] 아이콘을 클릭



# 3. 소스트리 기본 수행

## 커밋

- 스테이지에 올라간 feature-list.md와 TimesTable.md 확인 후, 커밋 메시지 적음. 그리고 커밋 버튼 클릭



# 3. 소스트리 기본 수행

## 커밋

- History 탭 > 커밋 그래프에서 커밋 내용 확인

The screenshot shows the Git GUI interface with the 'History' tab selected. The commit graph is displayed, showing a sequence of commits. A red box highlights the commit for '구구단 웹 앱 구현과 관' (Implementing and managing the multiplication table web app) on the 'main' branch. A red arrow points to this commit. The commit details show it was created by 'looker2zip' on 2023-02-12 at 18:02. The commit message is '구구단 웹 앱 구현과 관'.

그래프	설명	날짜	작성자	커밋
main	구구단 웹 앱 구현과 관	12 2 2023 18:02	looker2zip <looker2zip@gmail.com>	9fa392c
origin/main	개발자 클론 후 내용	12 2 2023 14:46	looker2zip <looker2zip@gmail.com>	f9711c1
first README.txt commit	2023-02-12	12 2 2023 11:55	looker2zip <looker2zip@gmail.com>	d880983
first README.txt commit	2023-02-12	12 2 2023 11:43	looker2zip <looker2zip@gmail.com>	981fc31

커밋: 9fa392c9618de84dd4c9565a998ec351123faa3e [9fa392c]  
상위 항목: f9711c18bc  
작성자: looker2zip <looker2zip@gmail.com>  
날짜: 2023년 2월 12일 일요일 오후 6:02:22  
커밋한 사람: looker2zip

구구단 웹 앱 구현과 관련한 계획과 기능 리스트 추가함

feature-list.md  
TimesTable.md

파일 내용  
1 + # TimesTable  
2 + 구구단 웹 페이지 작성  
3 +  
4 + ## 코드 삽입 예시  
5 + ... sh  
6 +  
7 + \$ git init  
8 + ...  
...\ No newline at end of file

# 3. 소스트리 기본 수행

## 커밋을 원격저장소에 푸시하기

### ● Push 버튼 클릭

The screenshot shows the Git GUI application window. The 'Push' button in the top toolbar is highlighted with a red box, and a red callout bubble with the text 'Click!!!' points to it. The main area displays a commit history table with columns for commit hash, message, date, author, and commit ID. The bottom panel shows the file editor for 'TimesTable.md' with a green background and a '코드문치 되돌리기' button.

커밋	날짜	설명	날짜	작성자	커밋
9fa392c	12 2 2023 18:02	구구단 웹 앱 구현과 관	12 2 2023 18:02	looker2zip <looker2zip@gmail.com>	9fa392c
f9711c1	12 2 2023 14:46	개발자 클론 후 내용	12 2 2023 14:46	looker2zip <looker2zip@gmail.com>	f9711c1
d880983	12 2 2023 11:53	first README.txt commit	12 2 2023 11:53	looker2zip <looker2zip@gmail.com>	d880983
981fc31	12 2 2023 11:43	first README.txt commit	12 2 2023 11:43	looker2zip <looker2zip@gmail.com>	981fc31

파일 상태순 정렬

커밋: 9fa392c9618de84dd4c9565a998ec351123faa3e [9fa392c]  
상위 항목: f9711c18bc  
작성자: looker2zip <looker2zip@gmail.com>  
날짜: 2023년 2월 12일 일요일 오후 6:02:22  
커밋한 사람: looker2zip

구구단 웹 앱 구현과 관련한 계획과 기능 리스트 추가함

feature-list.md  
TimesTable.md

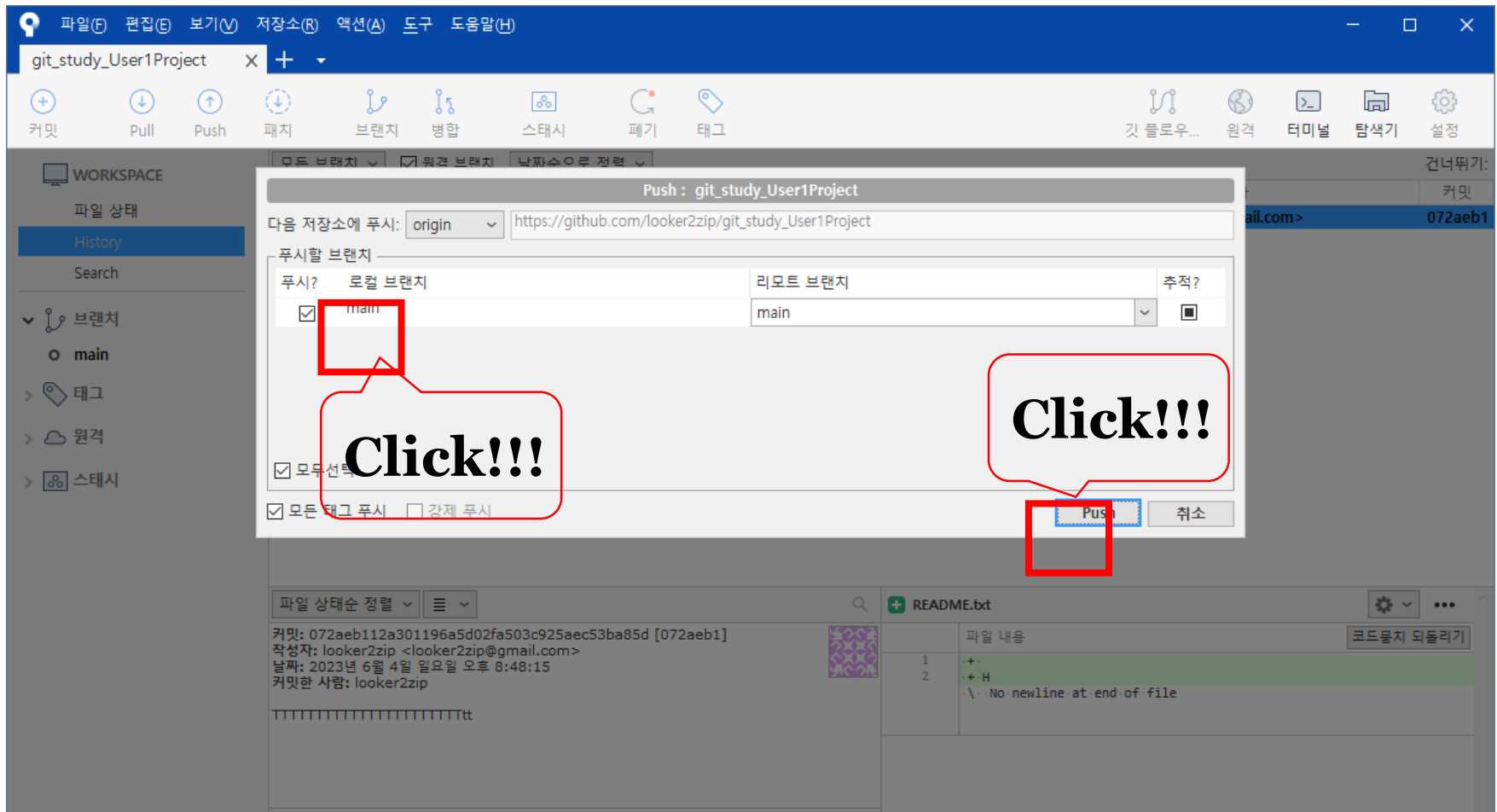
파일 내용

```
1 + # TimesTable
2 + 구구단 웹 페이지 작성
3 +
4 + ## 코드 삽입 예시
5 + ```sh
6 +
7 + $ git init
8 +
9 + \..No newline at end of file
```

### 3. 소스트리 기본 수행

## 커밋을 원격저장소에 푸시하기

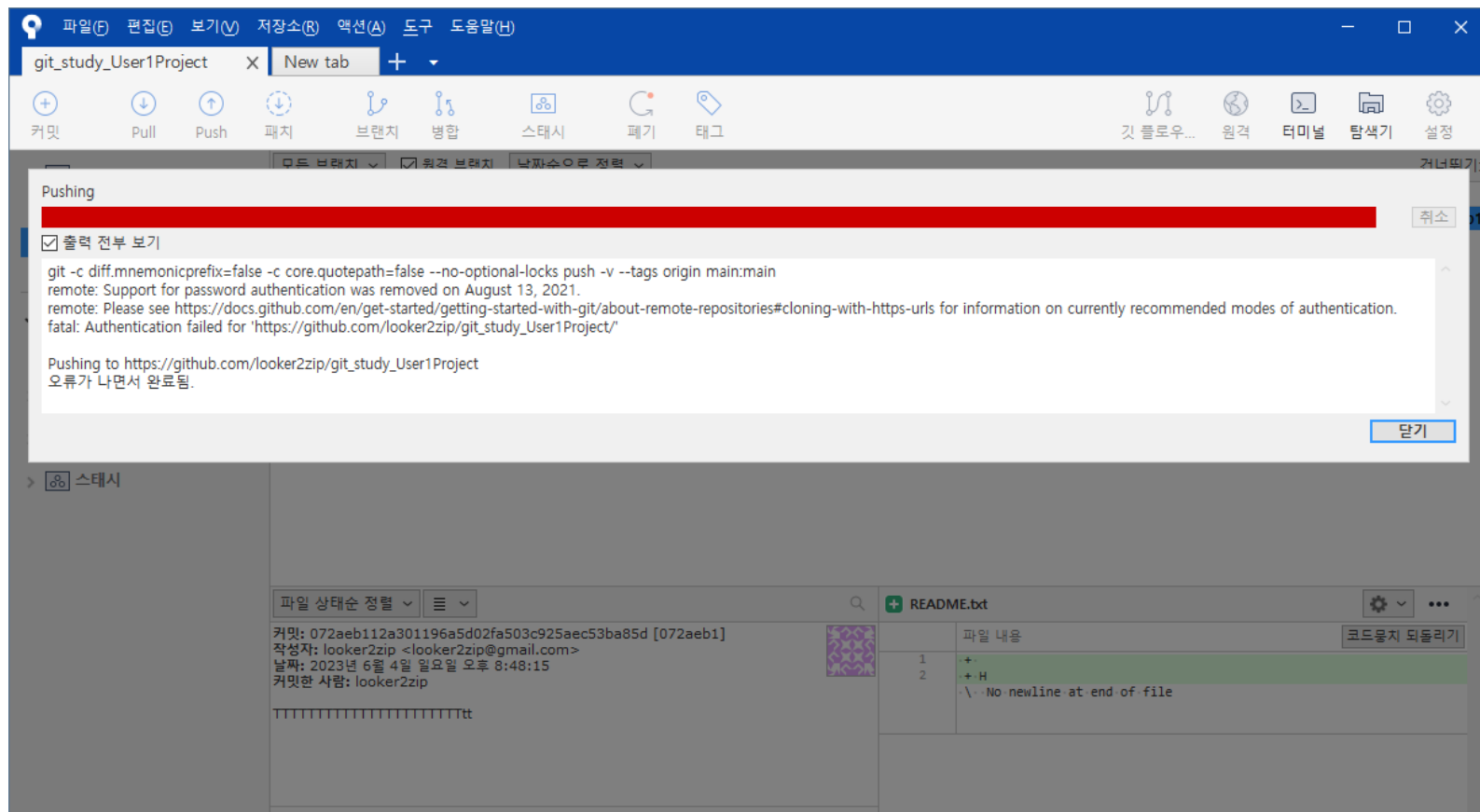
- Main 옆 체크 후, Push 버튼 클릭



# 3. 소스트리 기본 수행

## 커밋을 원격저장소에 푸시하기

- Main 옆 체크 후, Push 버튼 클릭





# 3. 소스트리 기본 수행

## 커밋을 원격저장소에 푸시하기

### ● Main 옆 체크 후, Push 버튼 클릭

원격 저장소 정보

필요한 정보

원격 이름:  ☒ 디폴트 원격

URL / 경로:

추가 확장 통합

Remote Account:

Generic Host

Legacy Account Settings:

호스트 종류:

호스트 루트 URL:

사용자명:

확장 통합을 사용하면 Bitbucket 과 같은 외부 호스팅과 연계할 수 있습니다. 예를 들어, 사이트에서 링크를 열 때 기존의 클론을 찾아 표시하거나, 그대로 pull 요청을 만들 수 있습니다.

Workspace: git\_study\_User1Project

Branches: main

Files: feature-list.md

Commit: 072aeb11

Author: looker2zip <looker2zip@gmail.com>

Date: 2023년 6월 4일 일요일 오후 8:48:15

Committed by: looker2zip

Diff:

```
1 +
2 + H
   \..No newline at end of file
```

# 3. 소스트리 기본 수행

## 원격저장소 확인

- 원격 저장소에서 Push 된 내용을 확인

looker2zip/git\_studyUser1Pproject

Search or jump to...

Pull requests Issues Codespaces Marketplace Explore

looker2zip / git\_studyUser1Pproject (Public)

Pin Unwatch 1 Fork 0 Star 0

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

**Click!!!**

looker2zip 구구단 웹 앱 구현과 관련한 계획과 기능 리스트 추가함 9fa392c 8 minutes ago 4 commits

File	Commit Message	Time
README.txt	개발자 클론 후 내용 변경한 것 올림 -20230212 Up	3 hours ago
TimesTable.m	구구단 웹 앱 구현과 관련한 계획과 기능 리스트 추가함	8 minutes ago
feature-list.m	구구단 웹 앱 구현과 관련한 계획과 기능 리스트 추가함	8 minutes ago

README.txt

Hello, Git!!! >>> Git Update 2023-02-12

About

git\_study/user1/project repository 2023-02012 Push

Readme

0 stars

1 watching

0 forks

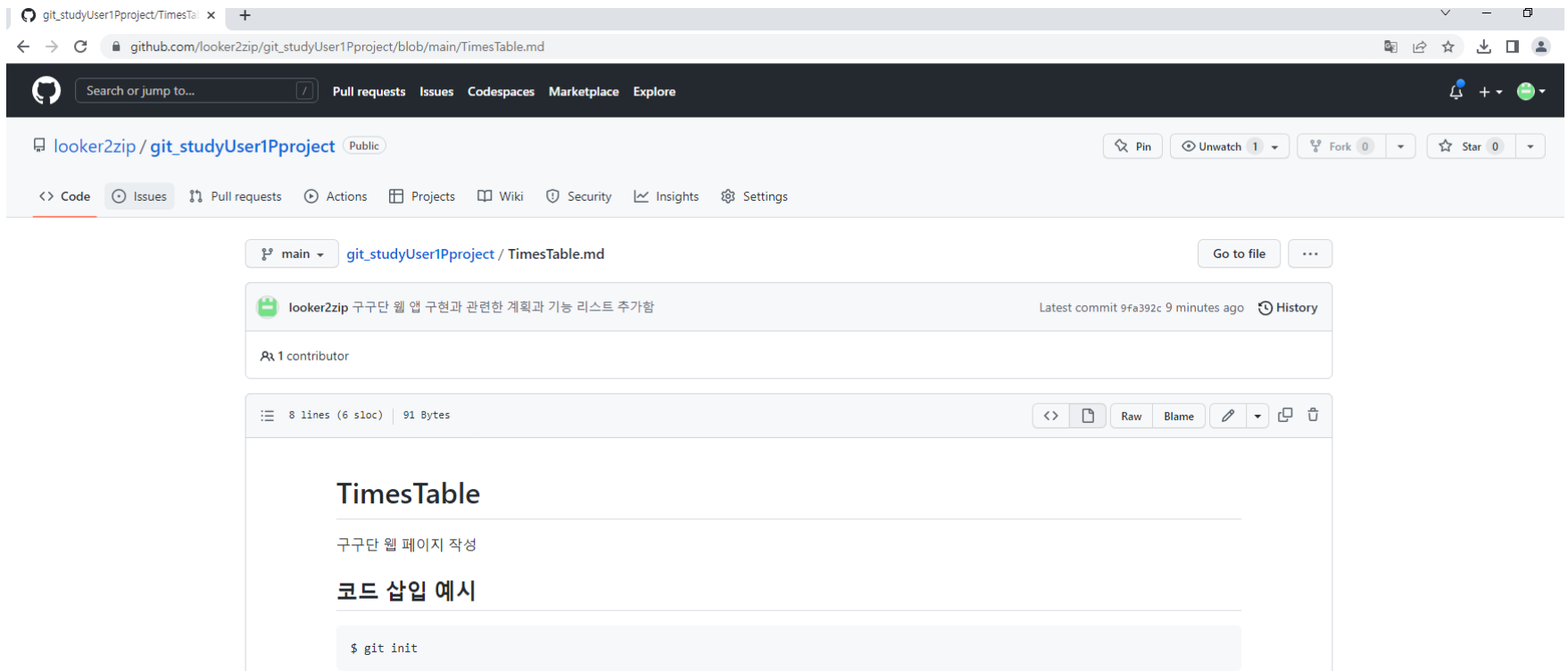
Releases

No releases published

# 3. 소스트리 기본 수행

## 원격저장소 확인

- 원격 저장소에서 Push 된 내용을 확인

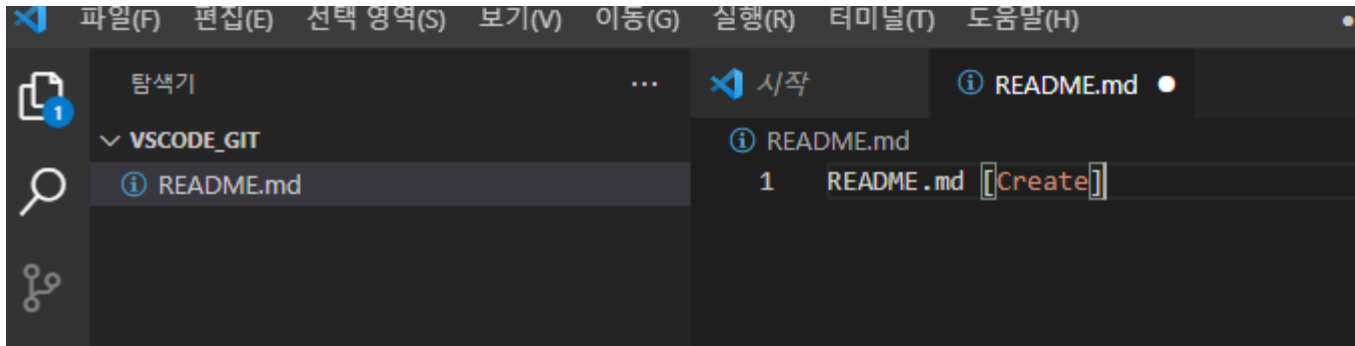


The screenshot displays a GitHub web interface. The browser's address bar shows the URL `github.com/looker2zip/git_studyUser1Pproject/blob/main/TimesTable.md`. The repository page for `looker2zip / git_studyUser1Pproject` is visible, with tabs for Code, Issues, Pull requests, Actions, Projects, Wiki, Security, Insights, and Settings. The `main` branch is selected, and the file `git_studyUser1Pproject / TimesTable.md` is open. A commit message is shown: `looker2zip` 구구단 웹 앱 구현과 관련한 계획과 기능 리스트 추가함, with the latest commit hash `9fa392c` and a timestamp of 9 minutes ago. The file content is displayed as a Markdown document with the title `TimesTable`, a subtitle `구구단 웹 페이지 작성`, and a section `코드 삽입 예시` containing the command `$ git init`.

# 4. VSCode Git 연동

## 1. 새 프로젝트 생성 후 실습

### ● README.md 파일이 1개 포함된 폴더를 한개 생성



```
C:\DEV\gitworkspaces\vscode_git>git --version  
git version 2.40.1.windows.1
```

```
C:\DEV\gitworkspaces\vscode_git>dir/w/p  
C 드라이브의 볼륨에는 이름이 없습니다.  
볼륨 일련 번호: BED0-C858
```

```
C:\DEV\gitworkspaces\vscode_git 디렉터리
```

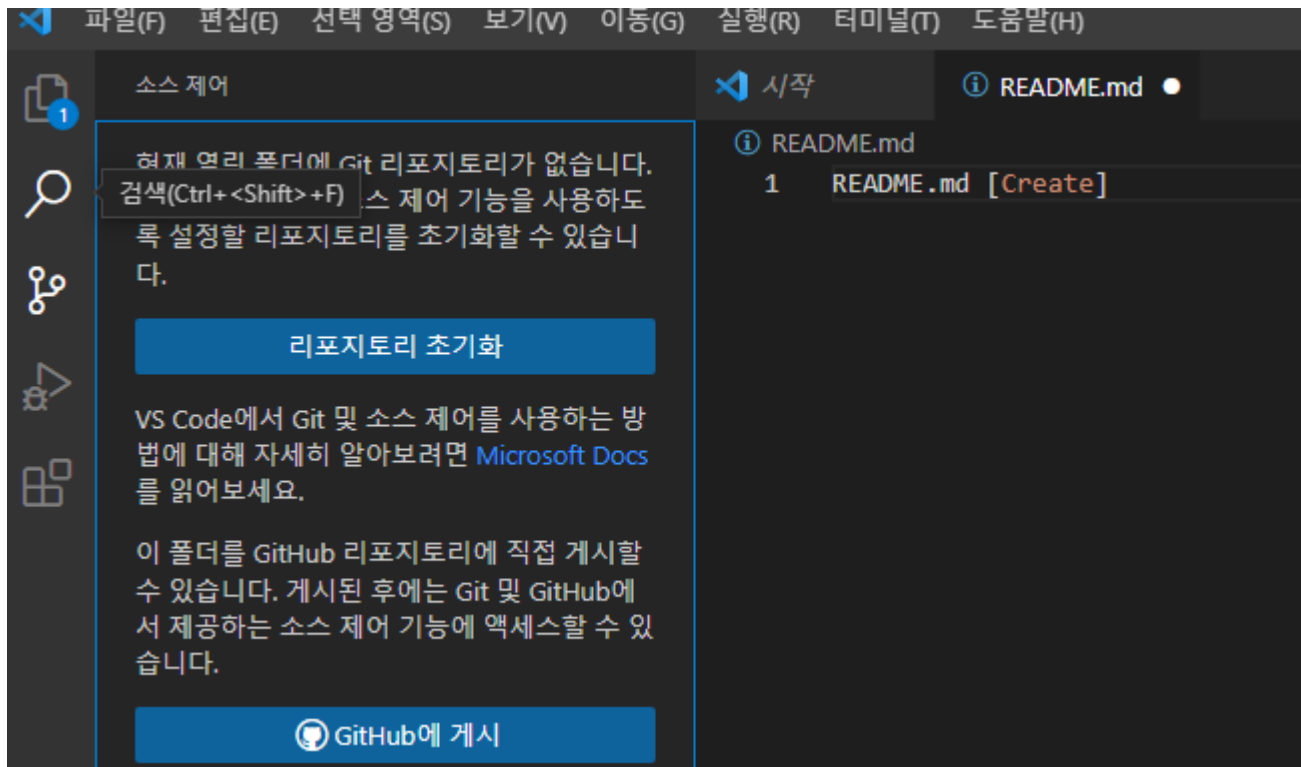
```
[.]      [..]      README.md  
1개 파일      18 바이트  
2개 디렉터리  8,597,274,624 바이트 남음
```

```
C:\DEV\gitworkspaces\vscode_git>
```

# 4. VSCode Git 연동

## 1. 프로젝트 생성

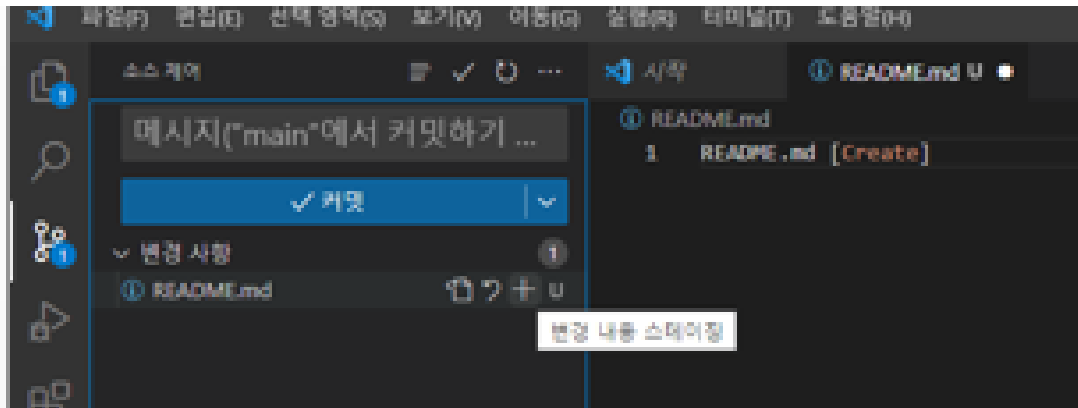
- VS Code에는 기본적으로 좌측 사이드 메뉴에, 따로 Extension을 설치하지 않아도 Git 메뉴가 있다. 이 메뉴를 클릭하여, "Initialize Repository"를 클릭. git init 커맨드와 동일한 역할을 하는 버튼.



# 4. VSCode Git 연동

## 1. 프로젝트 생성

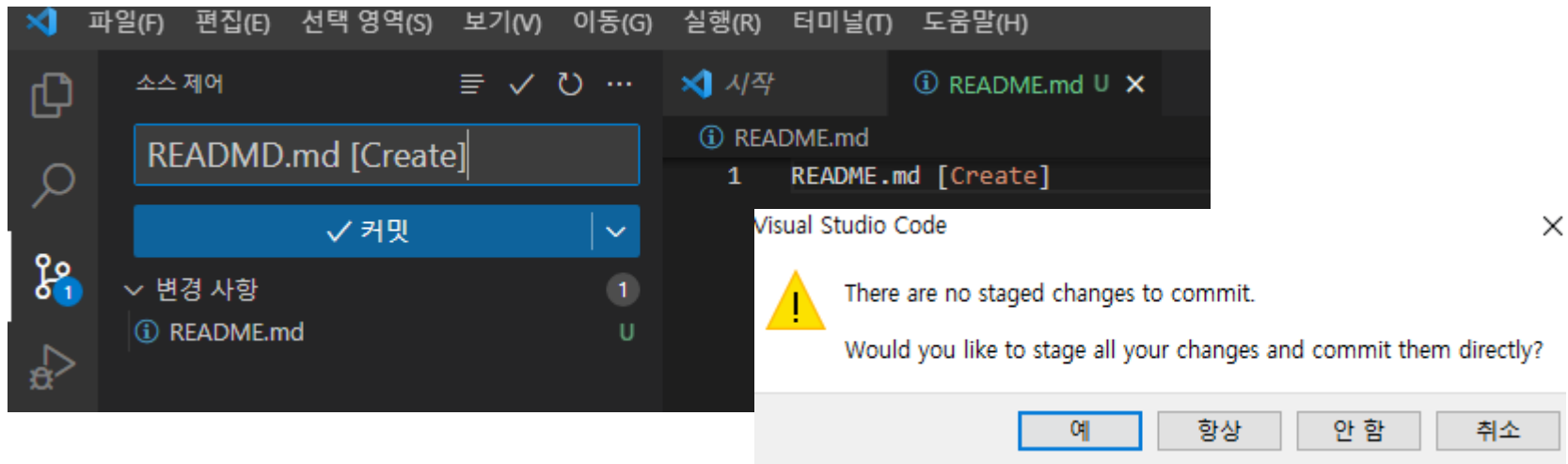
- Git init이 완료 되면, 아래와 같이 Source Control 메뉴에서 내가 생성하거나 수정한 파일이 Changes에 노출되는 것을 확인할 수 있습니다. 그러면 파일 하나하나 우측 + 버튼을 클릭하여 Stage 상태로 변경을 하거나 혹은 Chages 우측의 +(Stage All Changes) 버튼을 통해 모든 파일을 Stage 상태로 변경. 이것은 git add 커맨드와 동일한 작업.



# 4. VSCode Git 연동

## 1. 프로젝트 생성

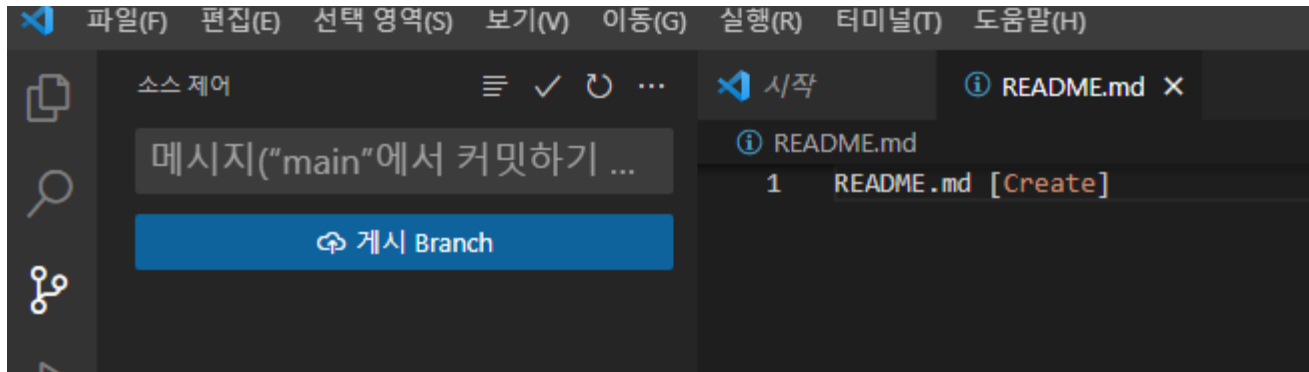
- Git add가 완료되면, 아래와 같이 해당 파일이 Staged Changes로 이동을 한 것을 확인할 수 있다. Source Control 우측에 브이 모양의 Commit 버튼을 클릭하면 Commit Message를 입력할 수 있는 창이 오픈이 된다. 여기에 메시지를 입력하고 엔터를 누르면 정상적으로 커밋이 완료된다.



# 4. VSCode Git 연동

## 1. 프로젝트 생성

- Git add가 완료되면, 아래와 같이 해당 파일이 Staged Changes로 이동을 한 것을 확인할 수 있다. Source Control 우측에 브이 모양의 Commit 버튼을 클릭하면 Commit Message를 입력할 수 있는 창이 오픈이 된다. 여기에 메시지를 입력하고 엔터를 누르면 정상적으로 커밋이 완료된다.



```
C:\DEV\gitworkspaces\vscode_git>git log --oneline --all --graph
```

```
* 3131588 (HEAD -> main) README.md [Create]
```



# 4. VSCode Git 연동

## 1. 프로젝트 생성

### ● Git Graph 설치



# 4. VSCode Git 연동

## 1. 프로젝트 생성

### ● Git Graph 클릭

The screenshot shows the Visual Studio Code interface with the 'Git Graph' extension search results on the left and the extension's details page on the right. The search results list several extensions, with 'Git Graph' by mhutchie at the top. A yellow box highlights the 'Git Graph' extension in the search results, and a yellow arrow points to it with the text 'Click!!!'. The details page for 'Git Graph' shows its version (v1.30.0), author (mhutchie), and a description: 'View a Git Graph of your repository, and perform Git actions from the graph.' The terminal at the bottom shows the command 'C:\DEV\gitworkspaces\vscode\_git>'.

확장: Git Graph - vscode\_git - Visual Studio Code

확장: 마켓플레이스

git graph

검색(Ctrl+<Shift>+F)

**Git Graph** 101ms  
View a Git Graph of your repository, and perform Git actions from the graph.  
mhutchie

**git-log--graph** 2K  
git log --graph, an interactive Git Gr...  
phil294

**Git History** 8K ★ 5  
Git history panel in your VS Code  
Guodong Sun

**GIT Graphy** 4K ★ 3  
Show repo statistics directly within ...  
Marco Pierobon

**Git Essentials** 3K ★ 5  
The 2021 Collection of extensions f...  
TechieCouch

**Git Extension Pack (GPa...** 6K ★ 5  
Git Essentials Extension Pack for Vis...  
SeyyedKhandon

**Just Enough Git** 3K ★ 5  
Popular extensions for Git users that...  
XuangeAha

**Git Visualizer** 396  
This tool visualizes git graphs to hel...  
Pranav Jain

**Just Can't Git Enough** 4K  
The quintessential glitter toolkit.  
Adrien Techet

**GitHub GraphQL Notebooks** 746  
Interactively run GitHub GraphQL q...

**Git Graph** v1.30.0  
mhutchie | 4,954,582 | ★★★★★ (482)  
View a Git Graph of your repository, and perform Git actions from the graph.  
사용 안 함 | 제거 | ⚙️  
이 확장은 전역적으로 사용하도록 설정되었습니다.

세부 정보 | 기능 기여도 | 변경 로그 | 런타임 상태

Git Graph extension for Visual Studio Code

View a Git Graph of your repository, and easily perform Git actions from the graph. Configurable to look the way you want!

File Edit Selection View Go Debug Terminal Help

demo - Git Graph

SOURCE CONTROL: Git | README.md | connects | app.ts | Git Graph

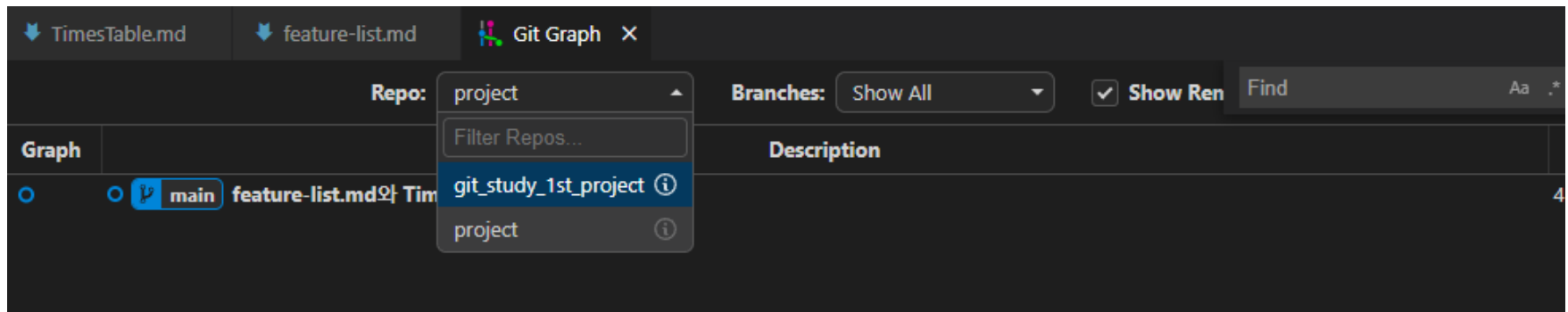
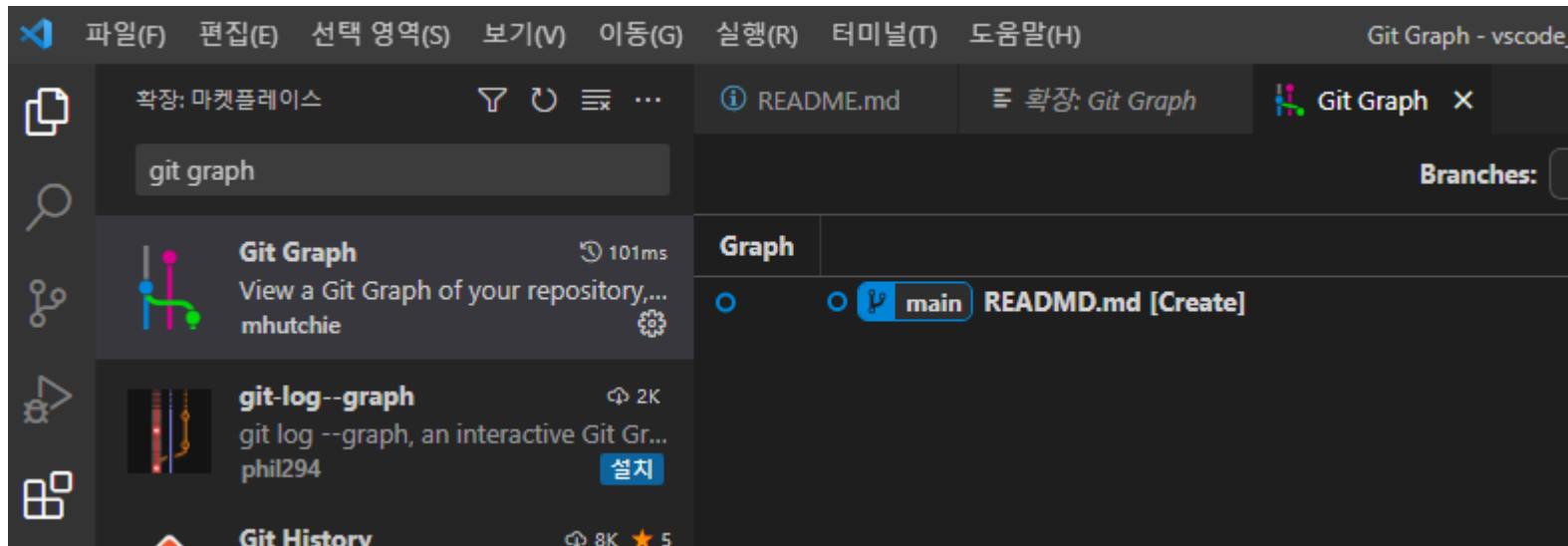
문제 | 출력 | 디버그 콘솔 | 터미널

C:\DEV\gitworkspaces\vscode\_git>

# 4. VSCode Git 연동

## 1. 프로젝트 생성

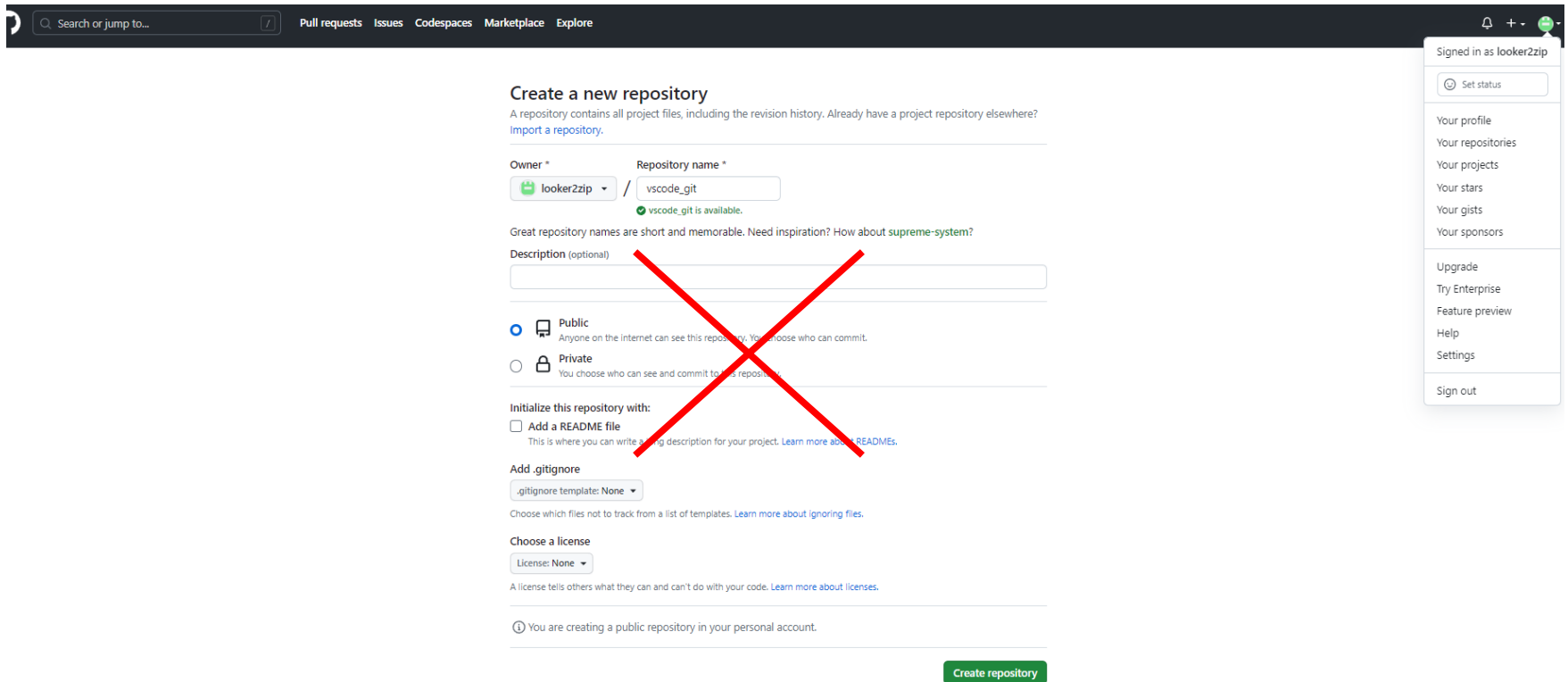
### ● Git Graph 클릭



# 4. VSCode Git 연동

## 2. Push

### ● 원격 저장소 생성



Search or jump to... Pull requests Issues Codespaces Marketplace Explore

Signed in as looker2zip  
Set status  
Your profile  
Your repositories  
Your projects  
Your stars  
Your gists  
Your sponsors  
Upgrade  
Try Enterprise  
Feature preview  
Help  
Settings  
Sign out

### Create a new repository

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

Owner \* looker2zip / Repository name \* vscode\_git  
vscode\_git is available.

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

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: None  
Choose which files not to track from a list of templates. [Learn more about ignoring files.](#)

Choose a license  
License: None  
A license tells others what they can and can't do with your code. [Learn more about licenses.](#)

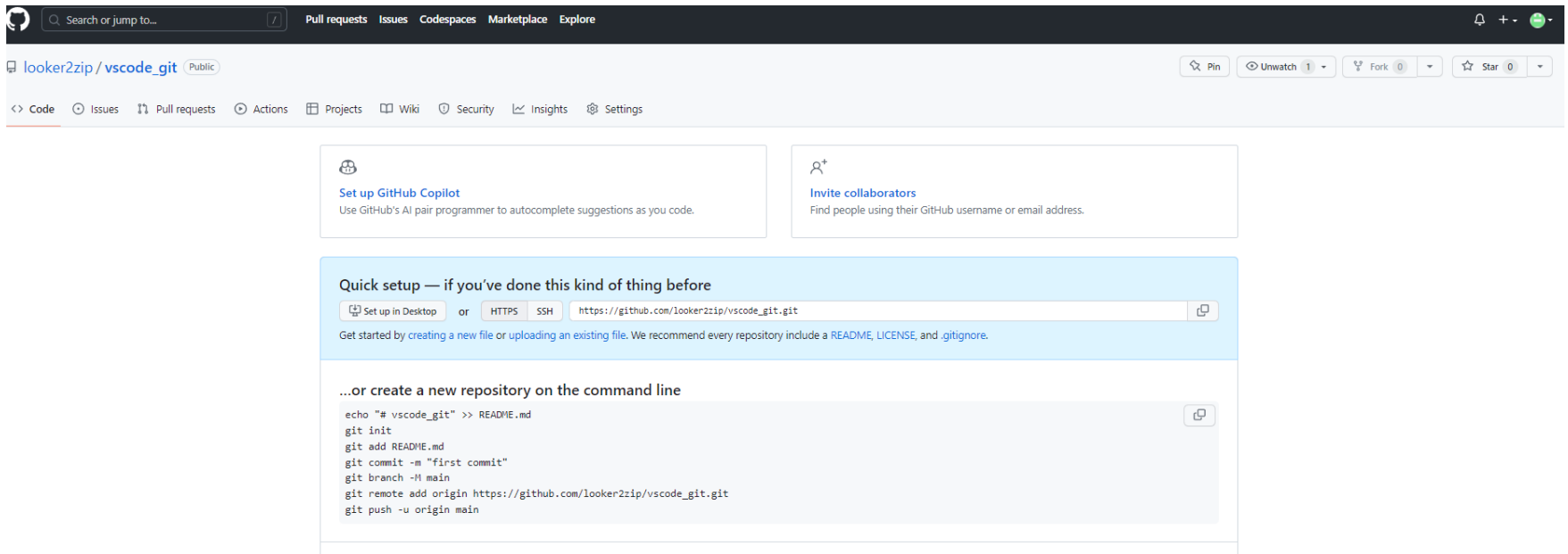
① You are creating a public repository in your personal account.

Create repository

# 4. VSCode Git 연동

## 2. Push

### ● 원격 저장소 생성



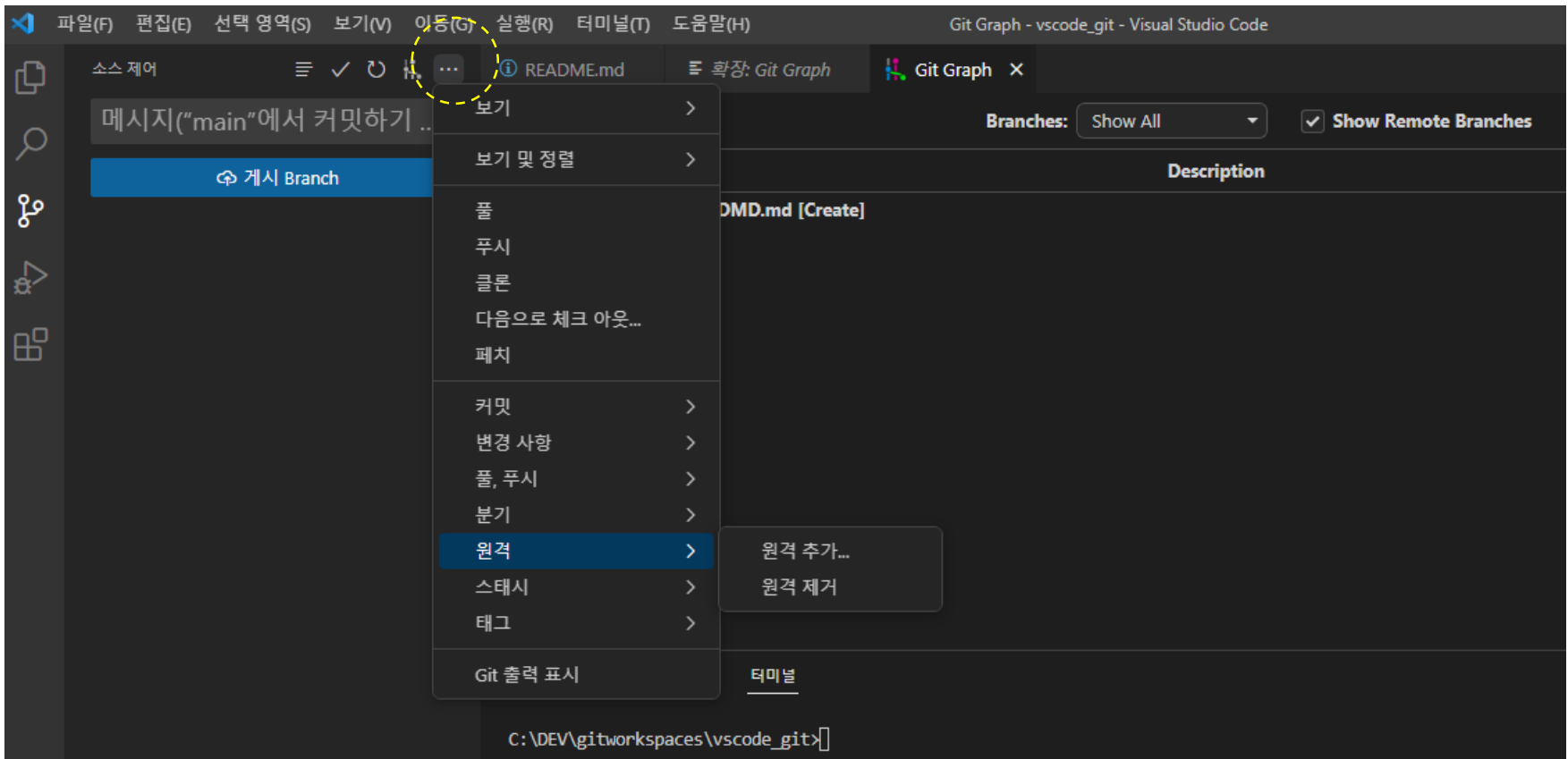
The screenshot shows the GitHub repository page for 'looker2zip/vscode\_git'. The repository is public and has 0 stars and 0 forks. The page displays instructions for setting up GitHub Copilot and inviting collaborators. Below these, there is a 'Quick setup' section for users who have done this before, providing a link to 'Set up in Desktop' or a direct HTTPS/SSH link. At the bottom, there is a section for creating a new repository on the command line, with a code block containing the following commands:

```
echo "# vscode_git" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/looker2zip/vscode_git.git
git push -u origin main
```

# 4. VSCode Git 연동

## 2. Push

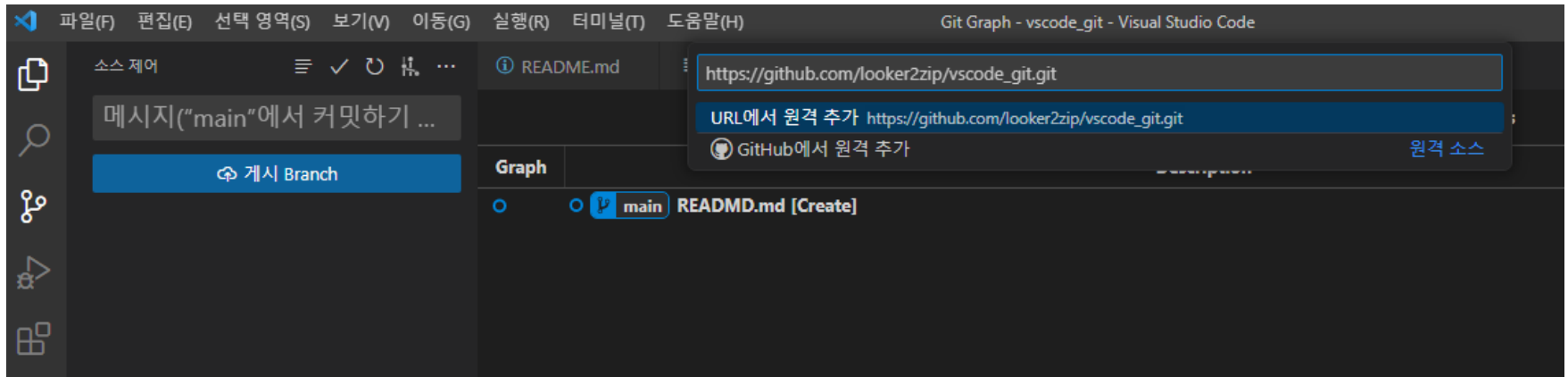
- 원격 저장소 등록 > 소스 제어 > 원격 > 원격 추가



# 4. VSCode Git 연동

## 2. Push

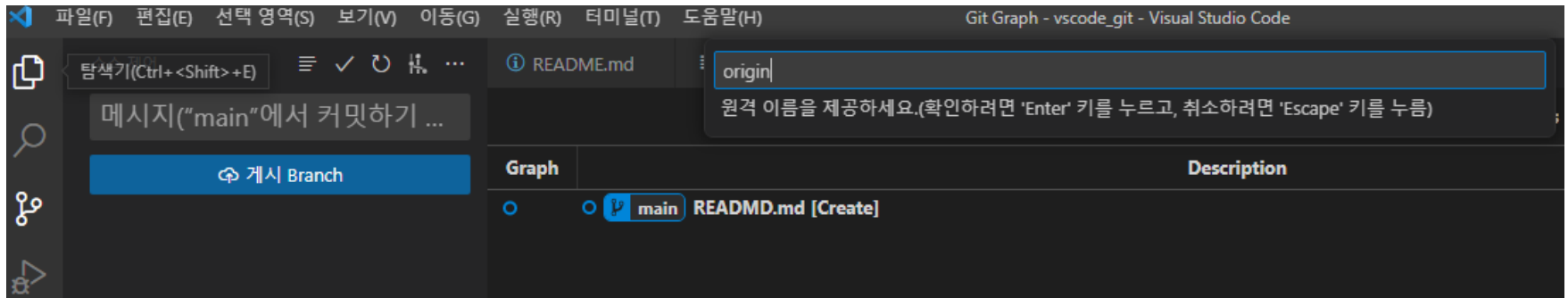
- 원격 저장소 등록
- 주소 입력



# 4. VSCode Git 연동

## 2. Push

- 원격 저장소 등록
- 주소 별칭 등록





# 4. VSCode Git 연동

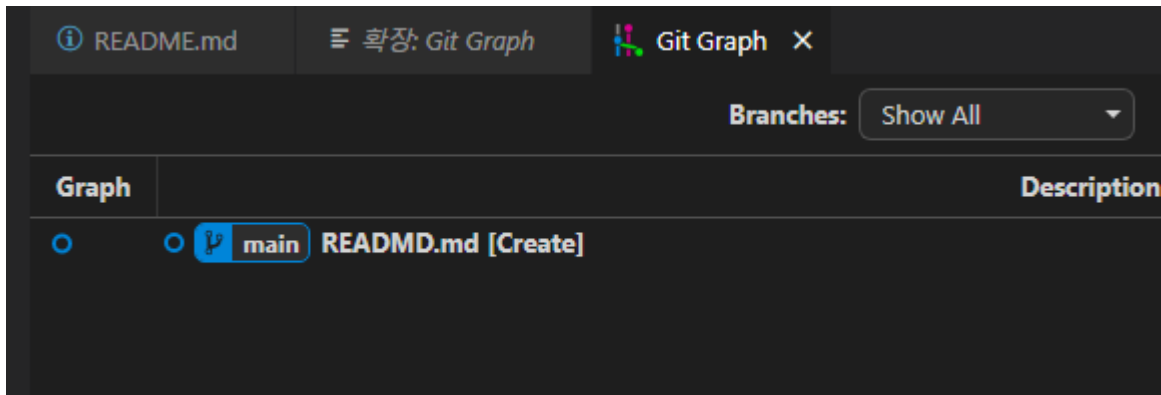
## 2. Push

### ● 로그 확인

```
C:\DEV\gitworkspaces\vscode_git>git log --oneline --all --graph  
* 3131588 (HEAD -> main) READMD.md [Create]
```

```
C:\DEV\gitworkspaces\vscode_git>
```

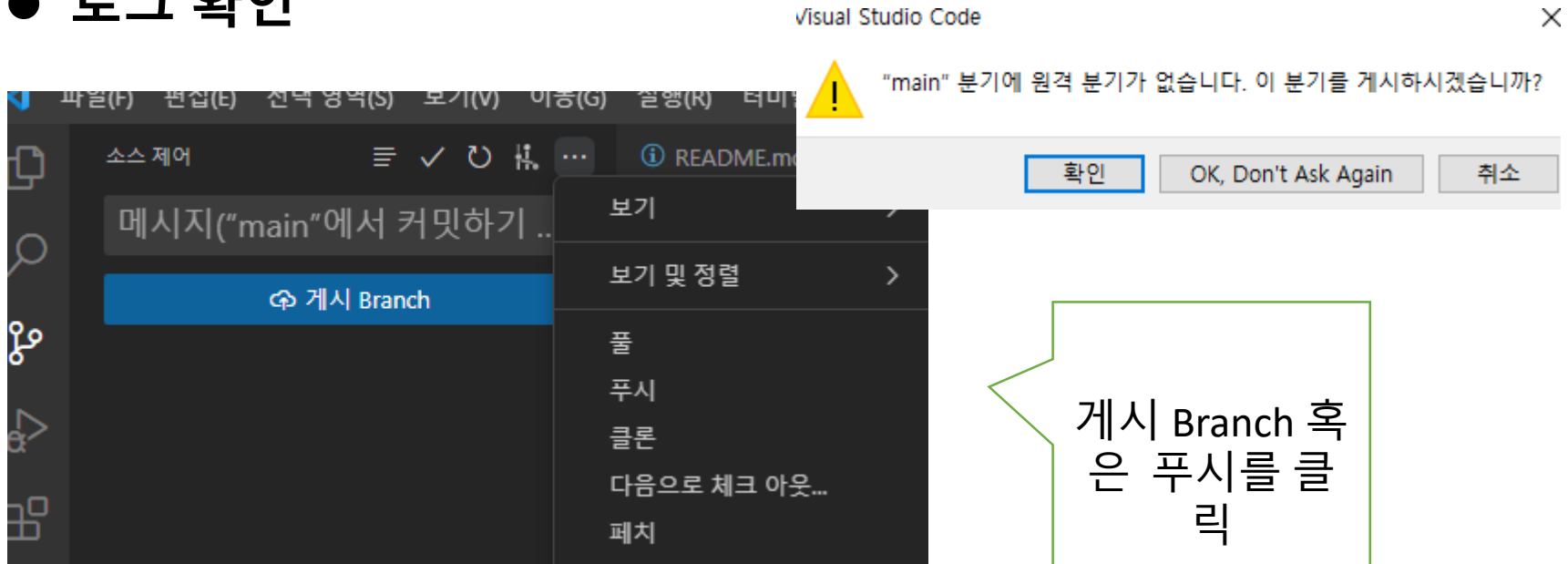
HEAD가 main  
을 가리키고  
있음



# 4. VSCode Git 연동

## 2. Push

### ● 로그 확인



게시 Branch  
은 푸시를 클  
릭

```
C:\DEV\gitworkspaces\vscode_git>git log --online --all --graph
```

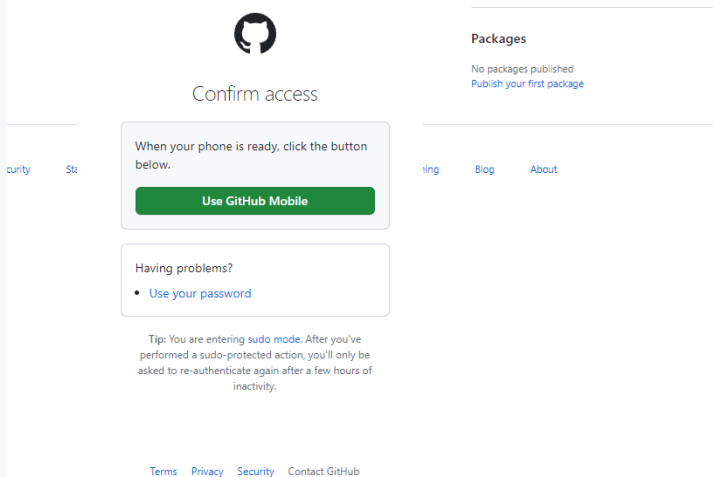
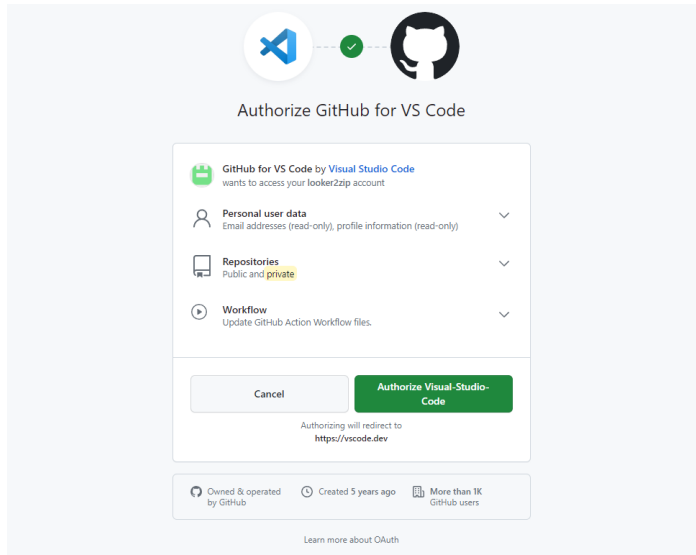
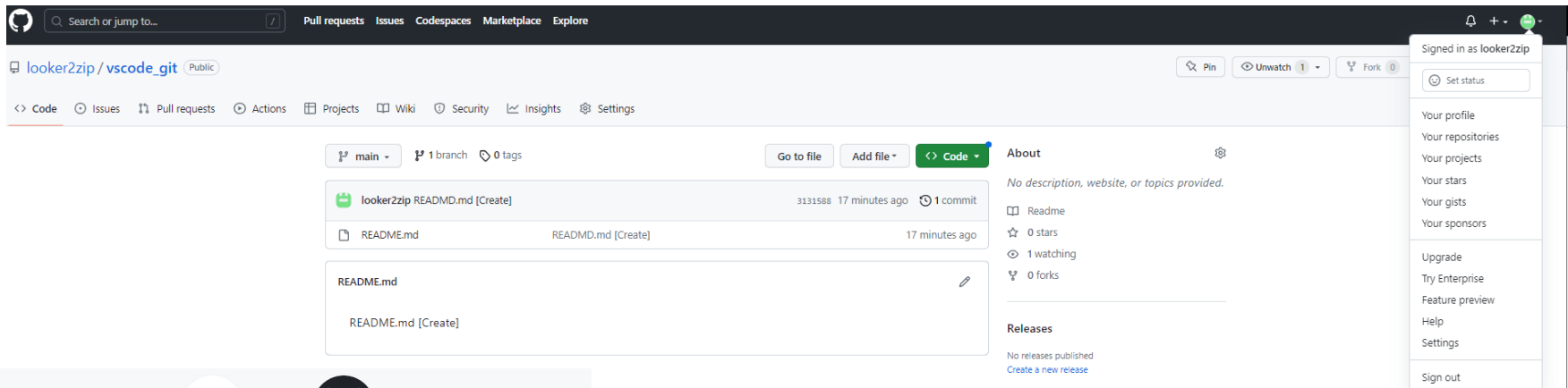
```
* 3131588 (HEAD -> main, origin/main) READMD.md [Create]
```

```
C:\DEV\gitworkspaces\vscode_git>
```

# 4. VSCode Git 연동

## 2. Push

### ● Git Hub 확인

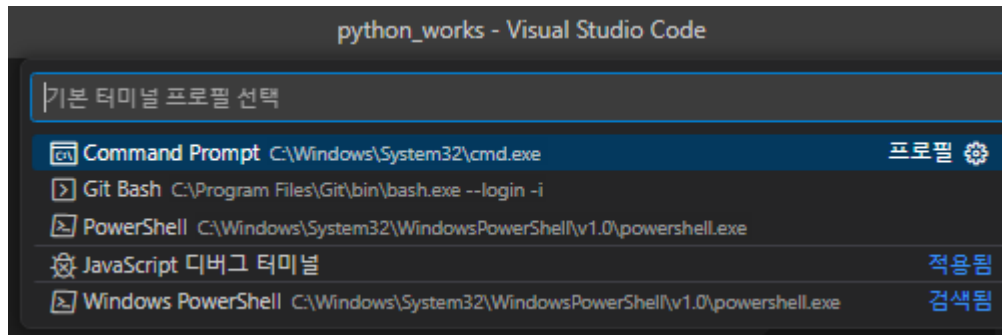


# 4. VSCode Git 연동

## 3. Git Bash 터미널 열기

보기 > 명령 팔레트

- Select Default Profile



# 4. VSCode Git 연동

## 3. Git Bash 터미널 열기

- 터미널 창에서 Git Bash 선택

