

소스트리 설치와 활용

Version Control and
Git & Github basics

강환수 교수



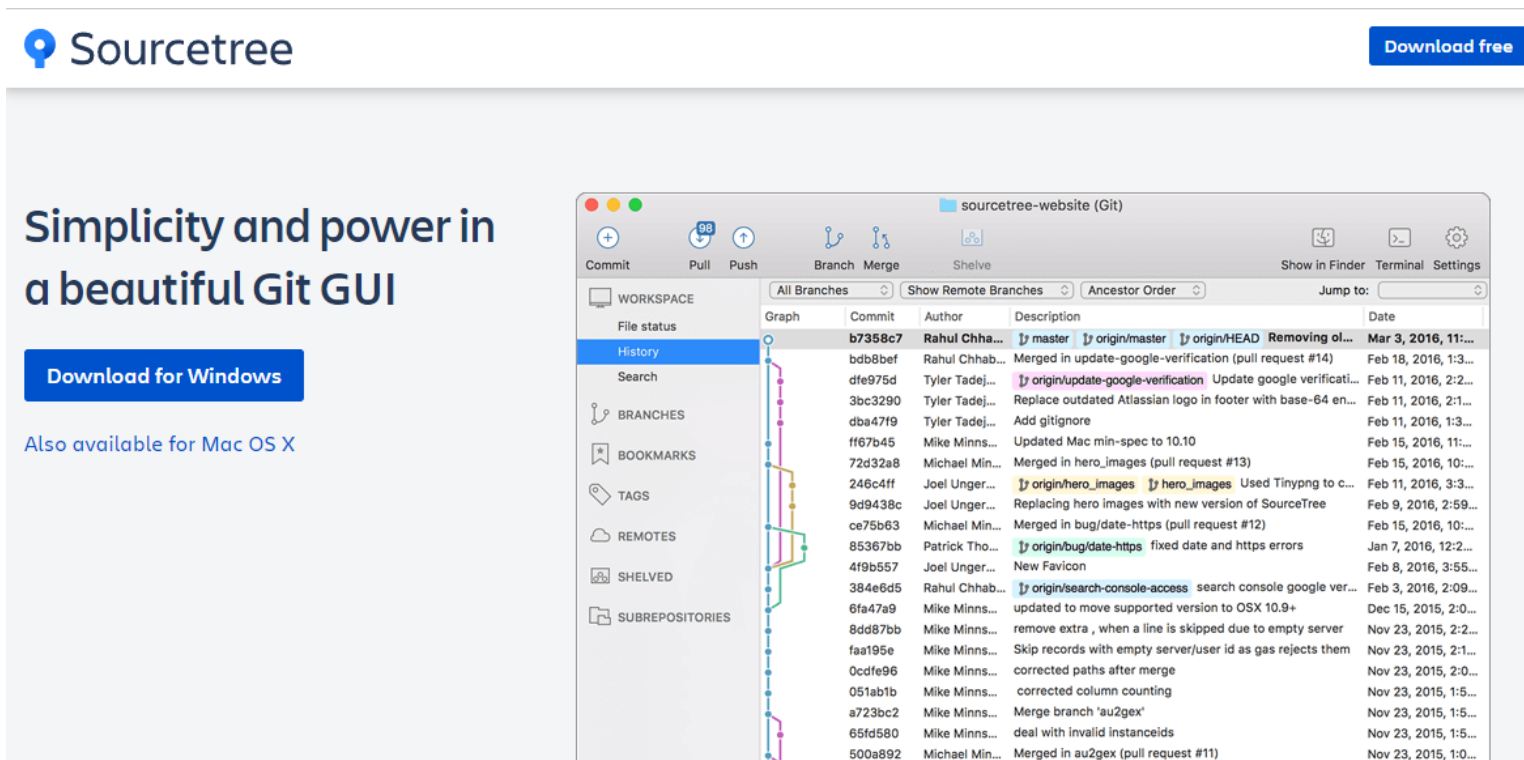
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01

소스트리 개요



- Atlassian에서 개발
 - 무료 Git 클라이언트
 - Bitbucket과 GitHub 모두에서 호스팅되는 리포지토리를 지원
 - 사용자 인터페이스에서 사용할 수 있는 다양한 기능과 작업이 있는 고급 클라이언트
 - 한글 지원
- <https://www.sourcetreeapp.com/>



The image shows the SourceTree website on the left and a screenshot of the SourceTree application interface on the right. The website features the SourceTree logo, a 'Download free' button, and the text 'Simplicity and power in a beautiful Git GUI'. Below this is a 'Download for Windows' button and a note 'Also available for Mac OS X'. The application screenshot shows a sidebar with 'WORKSPACE' (File status, History, Search), 'BRANCHES', 'BOOKMARKS', 'TAGS', 'REMOTES', 'SHELVED', and 'SUBREPOSITORIES'. The main area displays a commit history table for the 'sourcetree-website (Git)' repository.

| Graph | Commit | Author | Description | Date |
|-------|---------|----------------|---|----------------------|
| | b7358c7 | Rahul Chhab... | master origin/master origin/HEAD Removing ol... | Mar 3, 2016, 11:... |
| | bdb8bef | Rahul Chhab... | Merged in update-google-verification (pull request #14) | Feb 18, 2016, 1:3... |
| | dfe975d | Tyler Tadej... | origin/update-google-verification Update google verificati... | Feb 11, 2016, 2:2... |
| | 3bc3290 | Tyler Tadej... | Replace outdated Atlassian logo in footer with base-64 en... | Feb 11, 2016, 2:1... |
| | dba47f9 | 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... | origin/hero_images hero_images 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... | origin/bug/date-https fixed date and https errors | Jan 7, 2016, 12:2... |
| | 4f9b557 | Joel Unger... | New Favicon | Feb 8, 2016, 3:55... |
| | 384e6d5 | Rahul Chhab... | origin/search-console-access 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... |
| | 0cdf96 | 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... |

- OSS 접속 화면 <https://github.com/tensorflow/tensorflow>

The screenshot shows the SourceTree application interface. The top bar includes tabs for [STree repo], git-exe01, gitflow-branch, tensorflow, and vscode. Below the tabs is a toolbar with icons for commit, pull, push, fetch, branch, merge, stash, revert, and tag. The left sidebar shows the 'WORKSPACE' section with '파일 상태' (File Status), 'History', and 'Search' options. The '브랜치' (Branch) section shows the 'master' branch selected. The main area displays a commit history table with columns for '그래프' (Graph), '설명' (Description), '날짜' (Date), '작성자' (Author), and '커밋' (Commit). The selected commit is 'Introduced optional type argument for tensor Write selector.' by Raman Sarokin. The bottom right pane shows the code diff for the selected commit, with line numbers and code changes highlighted in green and red.

| 그래프 | 설명 | 날짜 | 작성자 | 커밋 |
|-----|---|----------------|--|----------|
| | Merge pull request #54810 from Intel-tensorflow | 8 3 2022 4:39 | TensorFlow Gardener <gardener@tensorflow.org> | 71151ec |
| | Factor out function for getting xla:ExecutableE | 8 3 2022 4:28 | HanBin Yoon <hanbinyoon@google.com> | 3966157 |
| | [XNNPACK] Support SPLIT operator with 2 out | 8 3 2022 4:16 | Zhi An Ng <zhin@google.com> | d192cb9 |
| | Add flatbuffer conversions for while operator. | 8 3 2022 4:04 | Nat Jeffries <njeff@google.com> | c88c8b7 |
| | [XLA] Simplify 'ShapeIndex' and 'ShapeIndexV | 8 3 2022 3:33 | Chris Jones <cj@jeff@google.com> | 518c1ea |
| | Rollback of PR #54432 | 8 3 2022 3:31 | A. Unique TensorFlow <gardener@tensorflow.org> | 6643f07 |
| | Merge pull request #54972 from yongtang:54i | 8 3 2022 3:19 | TensorFlow Gardener <gardener@tensorflow.org> | b18d2dd |
| | Merge pull request #54490 from MalcolmSlan | 8 3 2022 3:07 | TensorFlow Gardener <gardener@tensorflow.org> | c1a369e |
| | Merge pull request #54432 from yongtang:54i | 8 3 2022 3:04 | TensorFlow Gardener <gardener@tensorflow.org> | 857b918 |
| | Merge pull request #54820 from formigone:ps | 8 3 2022 2:50 | TensorFlow Gardener <gardener@tensorflow.org> | 0f96310 |
| | [tf.tfrt] Disable lowering of shape_cast in trans | 8 3 2022 2:28 | Diego Caballero <diegocaballero@google.com> | 0bbffc62 |
| | Integrate LLVM at llvm/llvm-project@17a680e | 8 3 2022 0:31 | A. Unique TensorFlow <gardener@tensorflow.org> | 80d2c8d |
| | TestExecutionEnvironment extended to provide | 7 3 2022 23:13 | Raman Sarokin <sorokin@google.com> | c04bb27 |
| | Added new syntax constructions to abstract ty | 7 3 2022 19:52 | Raman Sarokin <sorokin@google.com> | a71ad32 |
| | Merge pull request #54926 from ROCmSoftwa | 7 3 2022 19:40 | TensorFlow Gardener <gardener@tensorflow.org> | 42da266 |
| | Introduced optional type argument for tensor | 7 3 2022 19:25 | Raman Sarokin <sorokin@google.com> | e5c40c4 |
| | compat: Update forward compatibility horizon | 7 3 2022 18:19 | A. Unique TensorFlow <gardener@tensorflow.org> | 7097d0b |
| | Update GraphDef version to 1063. | 7 3 2022 18:06 | A. Unique TensorFlow <gardener@tensorflow.org> | 5725474 |
| | PR #54427: Implementation of the converter f | 7 3 2022 15:28 | Andrei Ivanov <32910461+drivanov@users.noreply.github.com> | 0f2b271 |
| | Update GraphDef version to 1062. | 6 3 2022 18:16 | A. Unique TensorFlow <gardener@tensorflow.org> | d3c7524 |
| | compat: Update forward compatibility horizon | 6 3 2022 18:04 | A. Unique TensorFlow <gardener@tensorflow.org> | d139359 |

커밋: e5c40c4ae9de0d6e5f73a8dc65bfa98660028e0 [e5c40c4]
 상위 황목: 7097d0b6d3
 작성자: Raman Sarokin <sorokin@google.com>
 날짜: 2022년 3월 7일 월요일 오전 2:23:42
 커밋한 사람: TensorFlow Gardener
 커밋 날짜: 2022년 3월 7일 월요일 오전 2:25:57

Introduced optional type argument for tensor Write selector.
 Allow to use tensors with different types for the same kernel source file.
 PiperOrigin-RevId: 432893871

tensorflow/lite/delegates/gpu/common/task/tensor_desc.cc
 tensorflow/lite/delegates/gpu/common/task/tensor_desc.h
 tensorflow/lite/delegates/gpu/common/tasks/pooling.cc
 tensorflow/lite/delegates/gpu/common/tasks/pooling_test_util.cc

```

1 부분: 238-248 줄
238 238 ..... else if (selector == "ReadBilinear") {
239 239 ..... return PerformReadBilinearSelector(gpu_info, args, result);
240 240 ..... else if (selector == "Write") {
241 241 ..... return PerformWriteSelector(gpu_info, args, result);
242 242 ..... return PerformWriteSelector(gpu_info, args, template_args, result);
243 243 ..... else if (selector == "WriteLinear") {
244 244 ..... return PerformWriteLinearSelector(gpu_info, args, result);
245 245 ..... return PerformWriteLinearSelector(gpu_info, args, template_args, result);
246 246 ..... else if (selector == "Write2D") {
247 247 ..... return PerformWrite2DSelector(gpu_info, args, result);
248 248 ..... return PerformWrite2DSelector(gpu_info, args, template_args, result);
249 249 ..... else if (selector == "GetAddress") {
250 250 ..... return PerformGetAddressSelector(args, result);
251 251 ..... else if (selector == "GetPtrWithSliceOffset") {
252 252 ..... return PerformGetPtrWithSliceOffsetSelector(args, result);
253 253 ..... }
254 254 ..... }
255 255 ..... }
256 256 ..... }
257 257 ..... }
258 258 ..... }
259 259 ..... }
260 260 ..... }
261 261 ..... }
262 262 ..... }
263 263 ..... }
264 264 ..... }
265 265 ..... }
266 266 ..... }
267 267 ..... }
268 268 ..... }
269 269 ..... }
270 270 ..... }
    
```

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02

소스트리 설치



Sourcetree

- ☒ Install
- ☐ **Registration**
- ☐ 도구 설치
- ☐ Preferences

Registration

To use Sourcetree, log in with a Bitbucket or



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

건너뛰기

다음

Bitbucket

Almost done

Create a username for Bitbucket Cloud

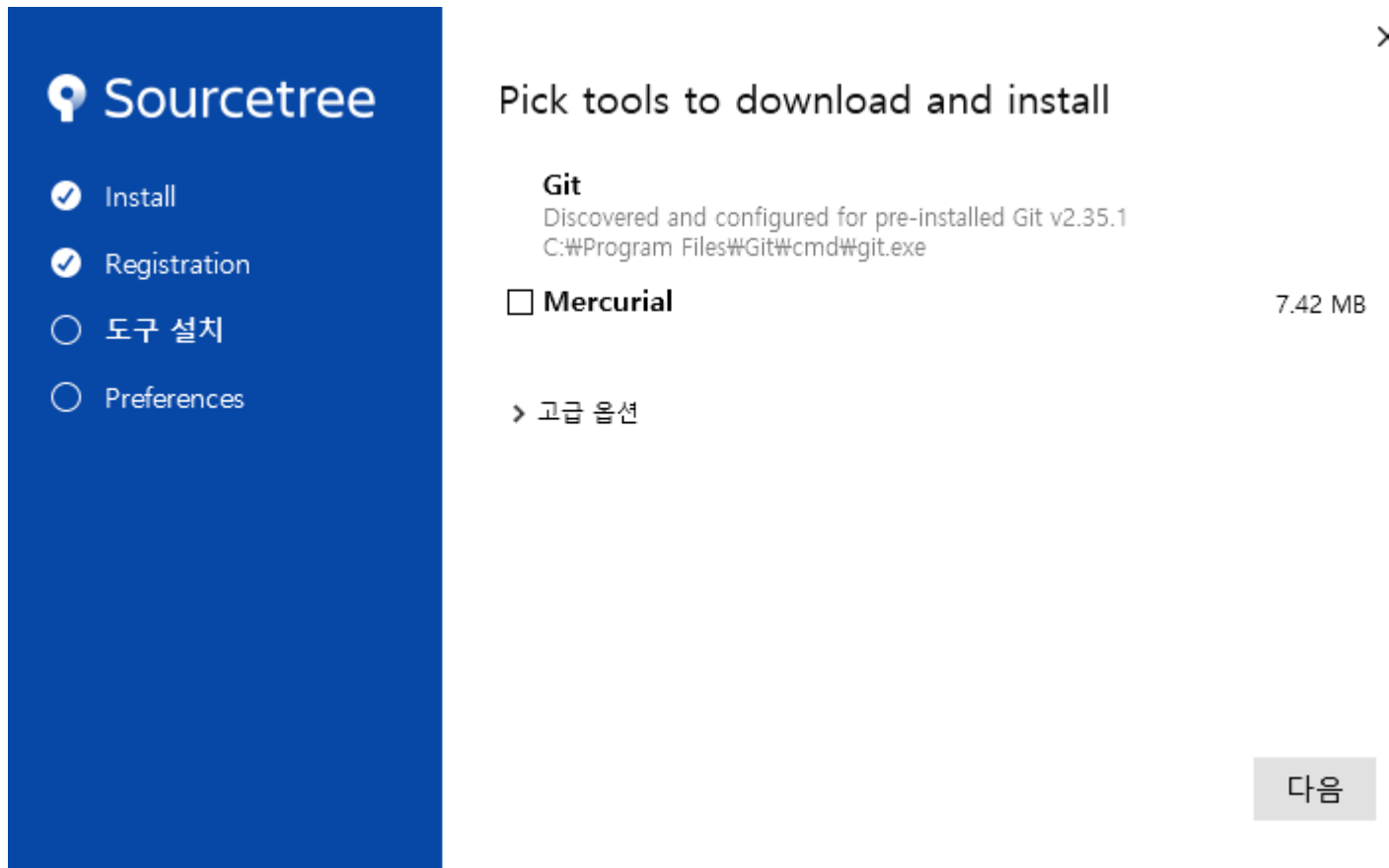
Email
ai7dnn@gmail.com

Username *

hskang

Continue

[Return to log in](#)





Sourcetree

- ☒ Install
- ☒ Registration
- ☒ 도구 설치
- ☐ Preferences

Preferences

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

다음

SSH 키를 불러오시겠습니까?

불러올 SSH 키를 하나 가지고 계십니까? 없으면 '아니오'를 누르고 나중에 하나 만드세요.

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03

환경설정: 옵션



- 기본 사용자 정보
 - 확인

옵션

일반

Updates

비교

Git

Mercurial

커스텀 액션

인증

네트워크

☒ Sourcetree가 Git과 Mercurial의 전역 설정을 수정하도록 허용

☒ Open links on Bitbucket.org with Sourcetree

☒ 나중에 북마크 생성 제공

☐ Enable 'Open in Sourcetree' context menu in Explorer

Theme:

Light

기본 사용자 정보

이름:

hskang

이메일 주소:

ai7dnn@gmail.com

SSH 클라이언트 설정

SSH 키:

...

SSH 클라이언트:

PuTTY / Plink

(Git 전용, Mercurial은 항상 Windows 용 Plink를 사용함)

☒ Automatically start SSH agent when Sourcetree opens

Repo Settings

프로젝트 폴더:

...

언어:

자동

(재시작 필요) [소스트리 번역을 도와주세요!](#)

기본 텍스트 인코딩:

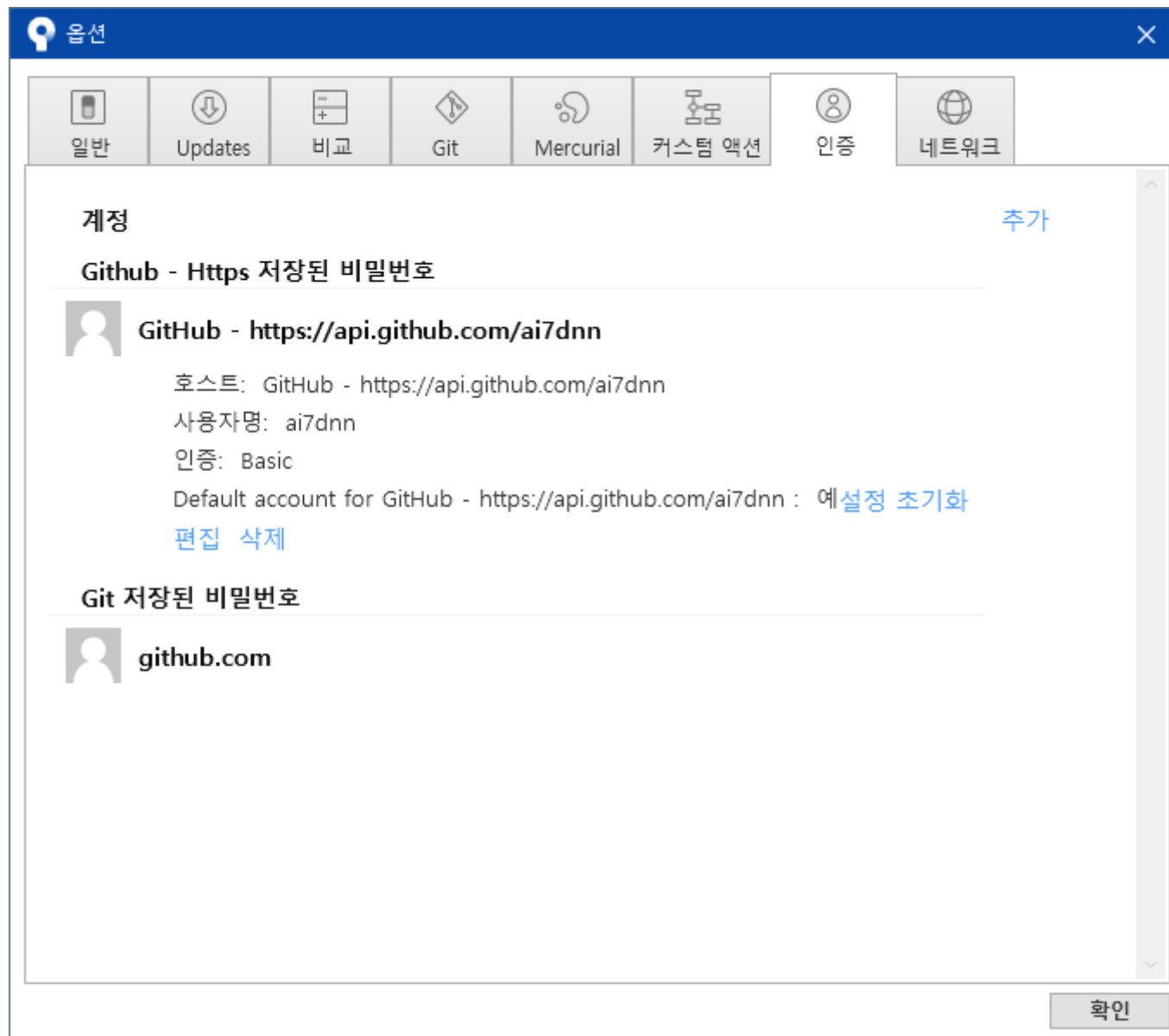
utf-8

☒ 파기 작업 시 백업 유지

☒ 파일 변경 시 자동으로 새로그침

확인

- 인증



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04

복제

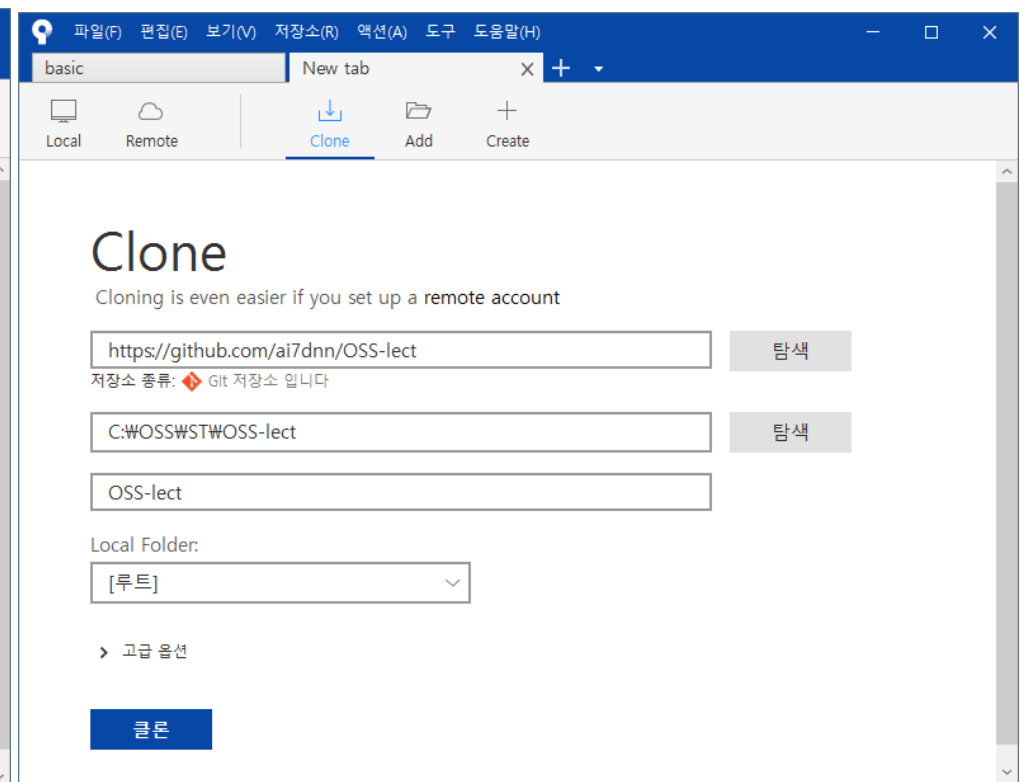
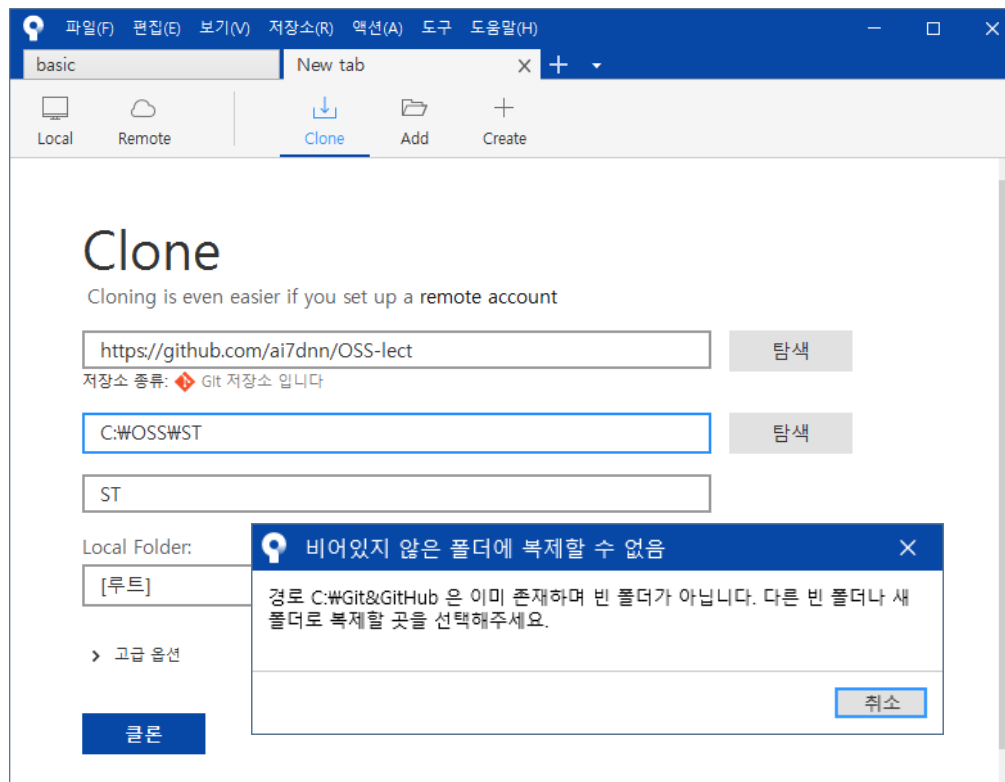


다음 중에서 3개의 원격저장소 복제

깃과 깃허브 Python language

- 우리 수업 깃허브
 - <https://github.com/ai7dnn/OSS-lect>
- 깃
 - <https://github.com/git/git>
- 텐서플로
 - <https://github.com/tensorflow/tensorflow>
- Vscode
 - <https://github.com/microsoft/vscode>
- linux
 - <https://github.com/torvalds/linux>

- 저장소에 URL기술
 - 오른쪽 그림: 실제 폴더 하부에 원격저장소 이름을 입력
 - OSS-lect
 - 왼쪽 그림: 기존의 폴더로 직접 사용하면 오류
 - C:\OSSWST가 있는 폴더



• 탐색기로 폴더도 확인

The screenshot shows the GitHub Desktop interface. The top bar includes a search icon and menu items: 파일(F), 편집(E), 보기(V), 저장소(R), 액션(A), 도구, 도움말(H). The main toolbar contains icons for 커밋, Pull, Push, 패치, 브랜치, 병합, 스테시, 페기, 태그, and settings. The left sidebar shows the 'WORKSPACE' section with '파일 상태', 'History', and 'Search'. The '브랜치' section shows 'main' as the current branch. The main area displays a commit history table for 'Update README.md'.

| 그래프 | 설명 | 날짜 | 작성자 | 커밋 |
|------|---------------------|-----------------|--------------------------|---------|
| main | Update README.md | 22 8 2022 13:44 | ai7dnn <70050528+ai7dnn@ | 6571aea |
| | Update README.md | 22 8 2022 13:43 | ai7dnn <70050528+ai7dnn@ | d39ea7d |
| | Update README.md | 22 8 2022 13:32 | ai7dnn <70050528+ai7dnn@ | 4e26c9e |
| | Update README.md | 22 8 2022 13:30 | ai7dnn <70050528+ai7dnn@ | 51313ba |
| | Update README.md | 22 8 2022 13:06 | ai7dnn <70050528+ai7dnn@ | 31a5acc |
| | Update README.md | 22 8 2022 13:01 | ai7dnn <70050528+ai7dnn@ | 170b426 |
| | Update README.md | 22 8 2022 13:00 | ai7dnn <70050528+ai7dnn@ | 4985349 |
| | Update README.md | 18 8 2022 13:01 | ai7dnn <70050528+ai7dnn@ | 5af618a |
| | Update reference.md | 18 8 2022 12:54 | ai7dnn <70050528+ai7dnn@ | d6bdb71 |
| | Update reference.md | 18 8 2022 12:50 | ai7dnn <70050528+ai7dnn@ | 2764a0e |
| | Update reference.md | 18 8 2022 12:48 | ai7dnn <70050528+ai7dnn@ | 174af59 |
| | Update reference.md | 18 8 2022 12:42 | ai7dnn <70050528+ai7dnn@ | a885d94 |
| | Create reference.md | 18 8 2022 12:35 | ai7dnn <70050528+ai7dnn@ | f23b0d6 |
| | Update README.md | 15 8 2022 8:47 | ai7dnn <70050528+ai7dnn@ | ad5534f |
| | Initial commit | 15 8 2022 8:40 | ai7dnn <70050528+ai7dnn@ | 2231489 |

Below the commit history, the '파일 상태' section shows 'Update README.md'. The 'README.md' file is selected, and its content is displayed in the right pane. The content includes links to various resources and a note about the repository.

The screenshot displays the Git GUI application. The top menu bar includes options like '파일(F)', '편집(E)', '보기(V)', '저장소(R)', '액션(A)', '도구', and '도움말(H)'. Below the menu is a toolbar with icons for commit, pull, push, patch, branch, merge, stash, reset, and tag. The main window is divided into three panes:

- Left Pane (Workspace):** Contains '파일 상태' (File Status), 'History' (selected), and 'Search'. Below these are icons for '브랜치' (Branches), '태그' (Tags), '원격' (Remotes), '스테시' (Stashes), and '서브모듈' (Submodules).
- Center Pane:** Shows a commit history graph and a list of commits. The selected commit is 'origin/seen' with a merge of 'sg/xalloc-cocci-fix' into 'seen' by Junio C Hamano on 2022-08-22 at 7:09. The commit message is 'Merge branch 'sg/xalloc-cocci-fix' into seen'.
- Right Pane:** Displays the code diff for the file 'promisor-remote.c'. The diff shows changes between the selected commit and its parent. The code includes a function 'repo_config' that calls 'xalloc' and 'xmalloc' to allocate memory for 'promisor_remote_config'.

The screenshot displays the GitHub web interface for the tensorflow repository. The top navigation bar includes links for '파일(F)', '편집(E)', '보기(V)', '저장소(R)', '액션(A)', '도구', and '도움말(H)'. The main header shows the repository name 'tensorflow' and the current branch 'origin/master'. The left sidebar contains a 'WORKSPACE' section with links to '파일 상태', 'History', 'Search', '브랜치', '태그', '원격', and '스테시'. The main content area shows a list of commits, with the most recent commit being 'A. Unique TensorFlow <gardener@tensorflow.org>' with commit hash '5e85b62'. Below the commit list, the file 'tensorflow/core/kernels/quantize_and_dequantize_op.cc' is selected, showing its code. The code includes various headers and defines the 'QuantizeAndDequantizeV3' function. The bottom of the interface shows the file's commit history and a list of files in the repository.

The screenshot displays the Visual Studio Code interface with the following components:

- Top Bar:** Includes the menu bar (File, Edit, View, Source Control, Tools, Help) and the tab bar showing the current workspace 'OSS-lect' and the 'git' extension.
- Left Sidebar:** Contains the 'WORKSPACE' section with '파일 상태' (File State), 'History', and 'Search'. Below it is the '브랜치' (Branch) section showing the 'main' branch.
- Git Explorer:** A table showing the commit history for the 'main' branch. The table has columns for '그래프' (Graph), '설명' (Description), '날짜' (Date), '작성자' (Author), and '커밋' (Commit). The most recent commit is 'f9093f63' by 'Michael Lively'.
- File Explorer:** Shows the file structure of the workspace, including 'extensions/ipynb/src/notebookImagePaste.ts'.
- Code Editor:** Displays the code for 'notebookImagePaste.ts'. The code is divided into three sections: '1 부분 : 31-37 줄', '2 부분 : 42-48 줄', and '3 부분 : 62-74 줄'. The code includes comments and function definitions for handling notebook cell data.

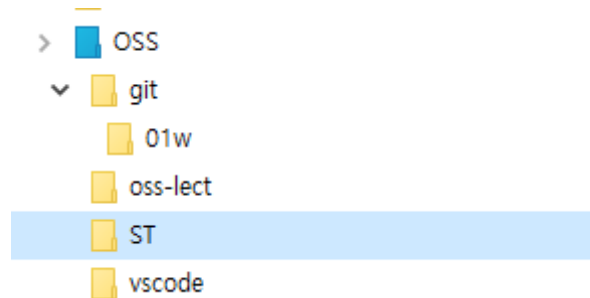
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03

지역 저장소 생성과 이력 관리

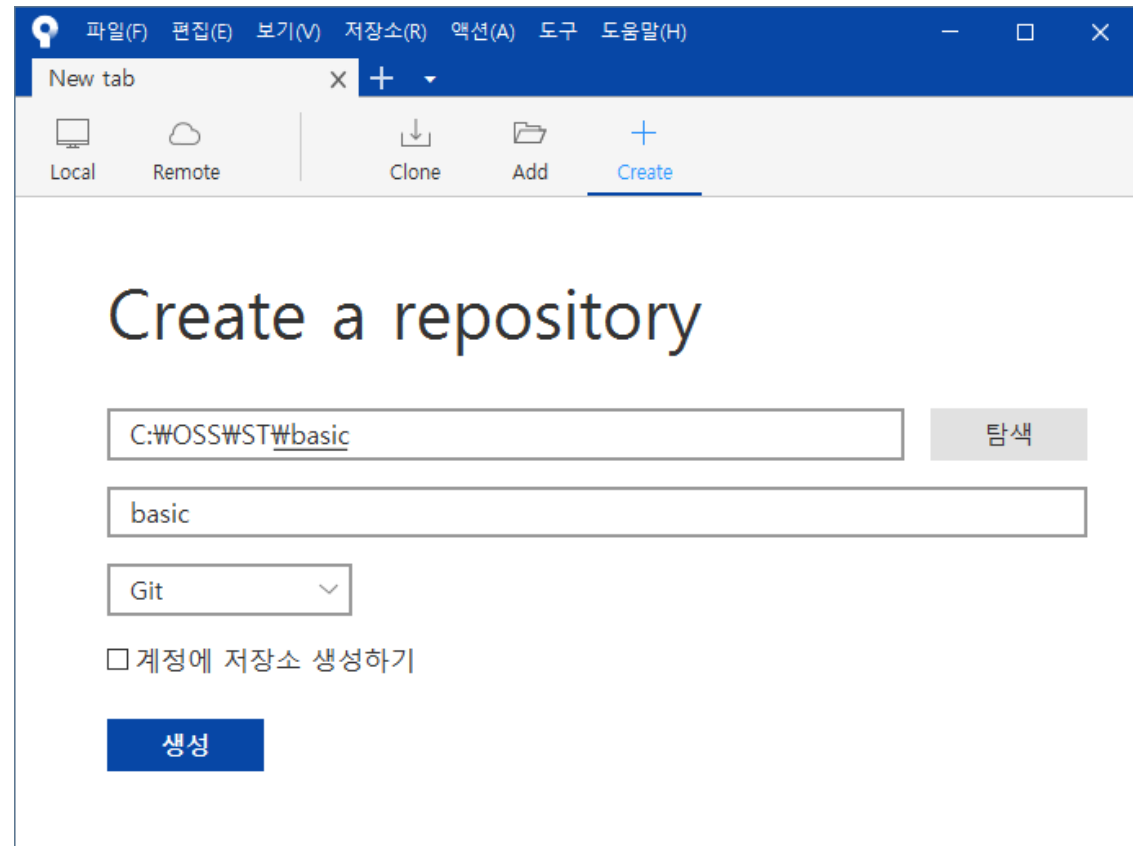
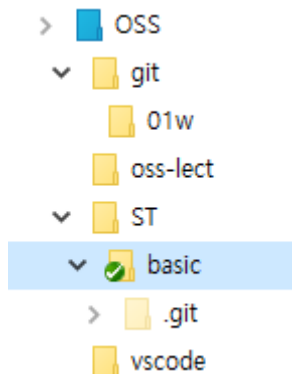


- 지역 저장소 생성 기준
 - 처음, 기준을 정하고 하부에 만들어 보도록
 - 폴더 ST 하부에

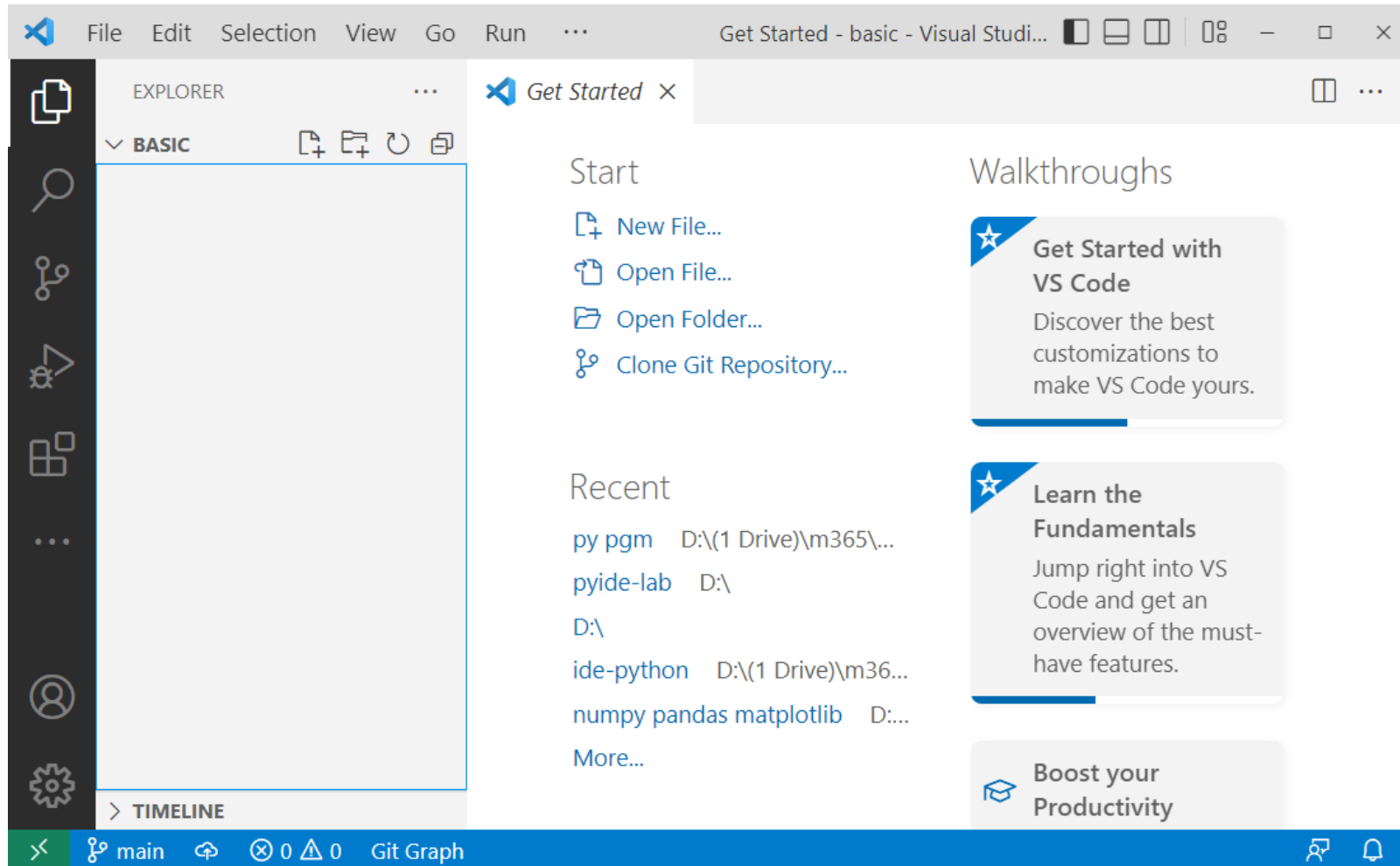


- 편집기 하나 준비
 - vscode

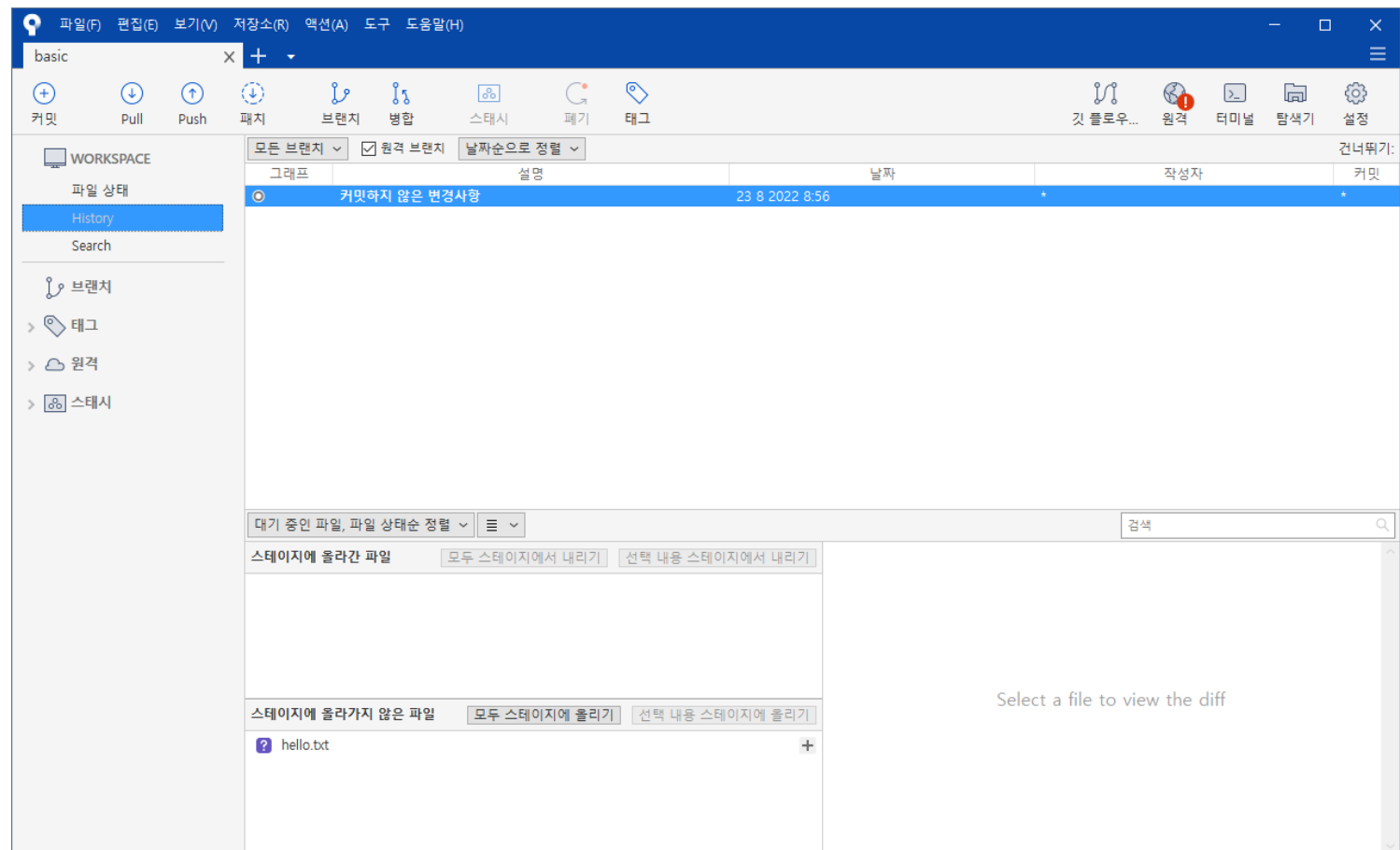
- 메뉴 create
- 탐색으로 기준 폴더를 정하고
 - 하부에 생성 폴더 이름을 기술
 - Wbasic 을 기술
- 생성 클릭
 - 성공 확인



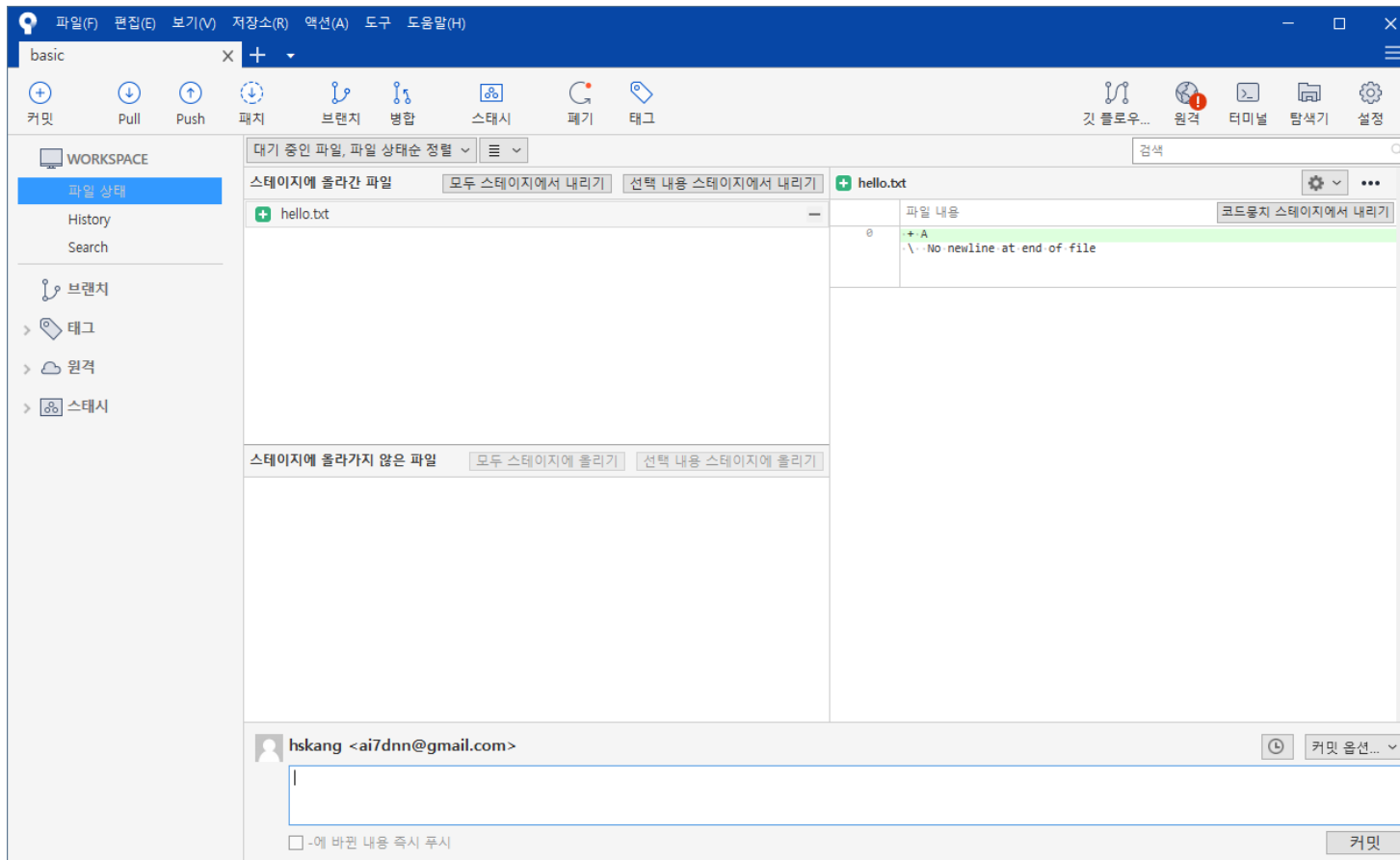
- 폴더 basic
 - 탐색기 메뉴 'code로 열기'



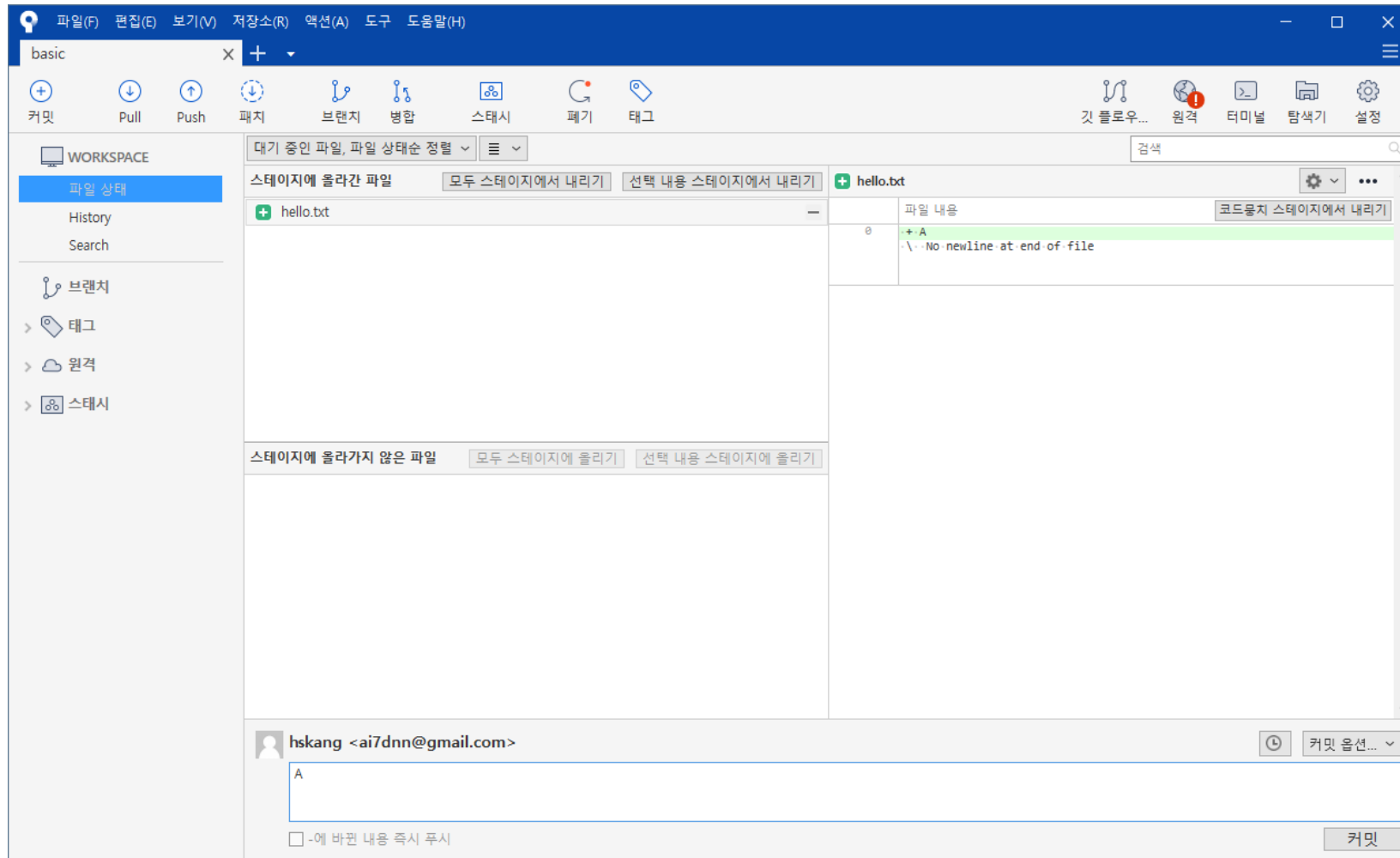
- 입력 후 저장(ctrl + s)
 - A
- 왼쪽 WORKSPACE 하부 History 클릭
 - 커밋이력
 - 스테이지
 - 작업디렉토리



- Ass
 - 파일 hello.txt
 - + 클릭 or 스테이지로 드래그
- 왼쪽 '파일 상태' 클릭

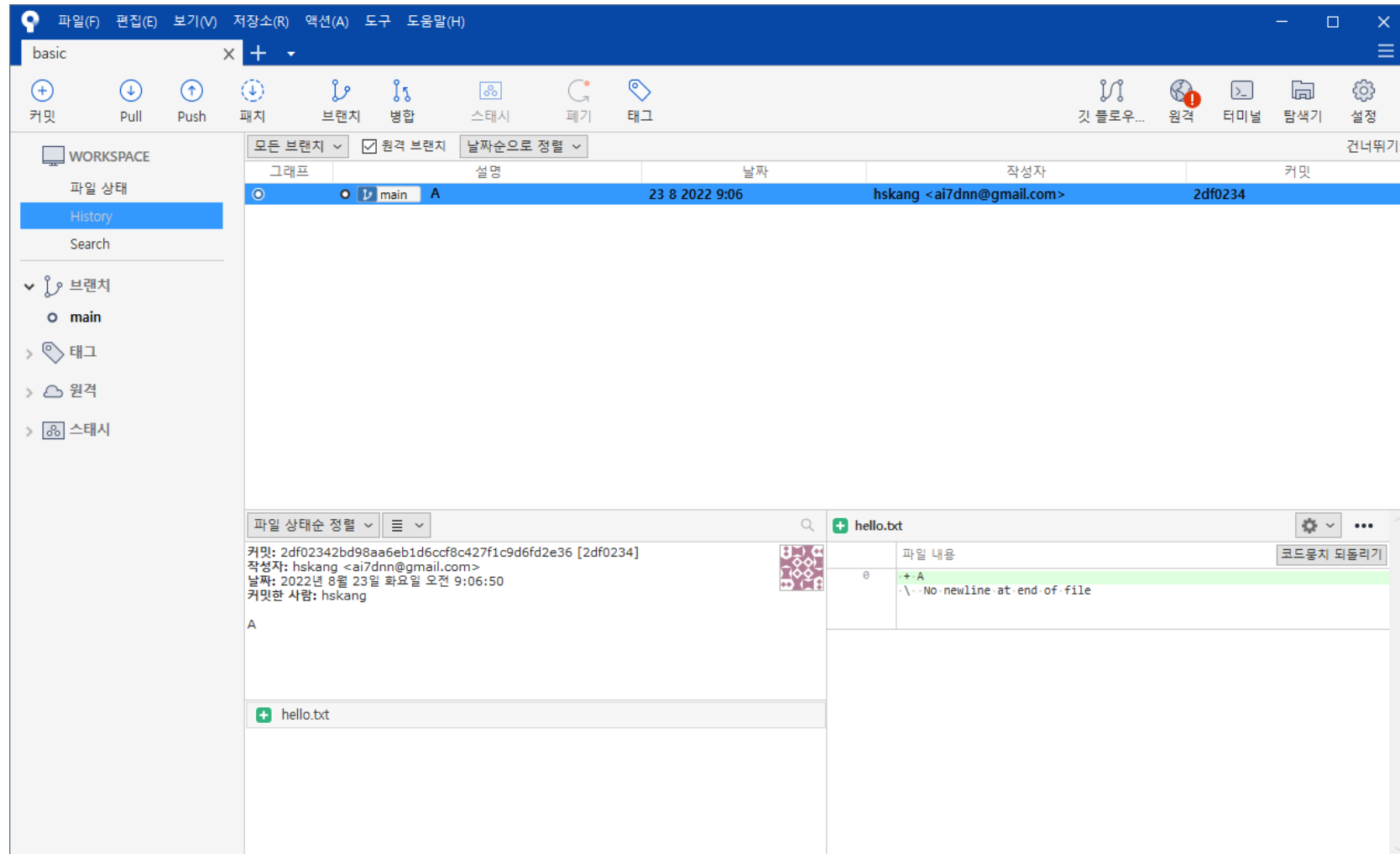


- 커밋 메시지 입력 후 | 우측 하단 '커밋' 클릭
 - 간단히 A



첫 커밋 성공

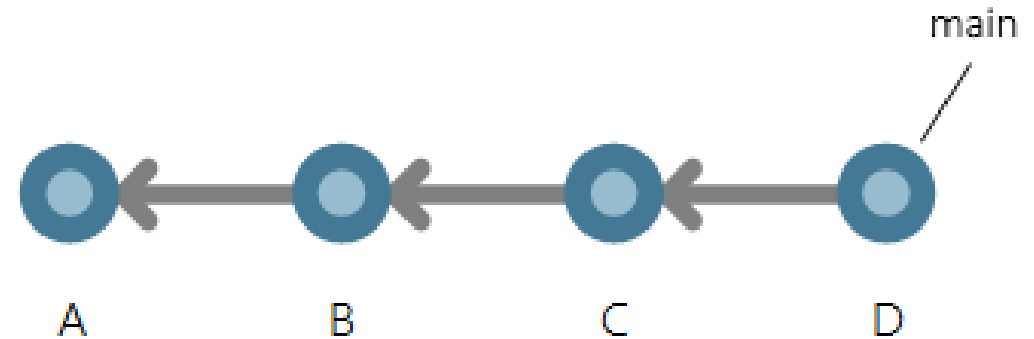
깃과 깃허브 Python language



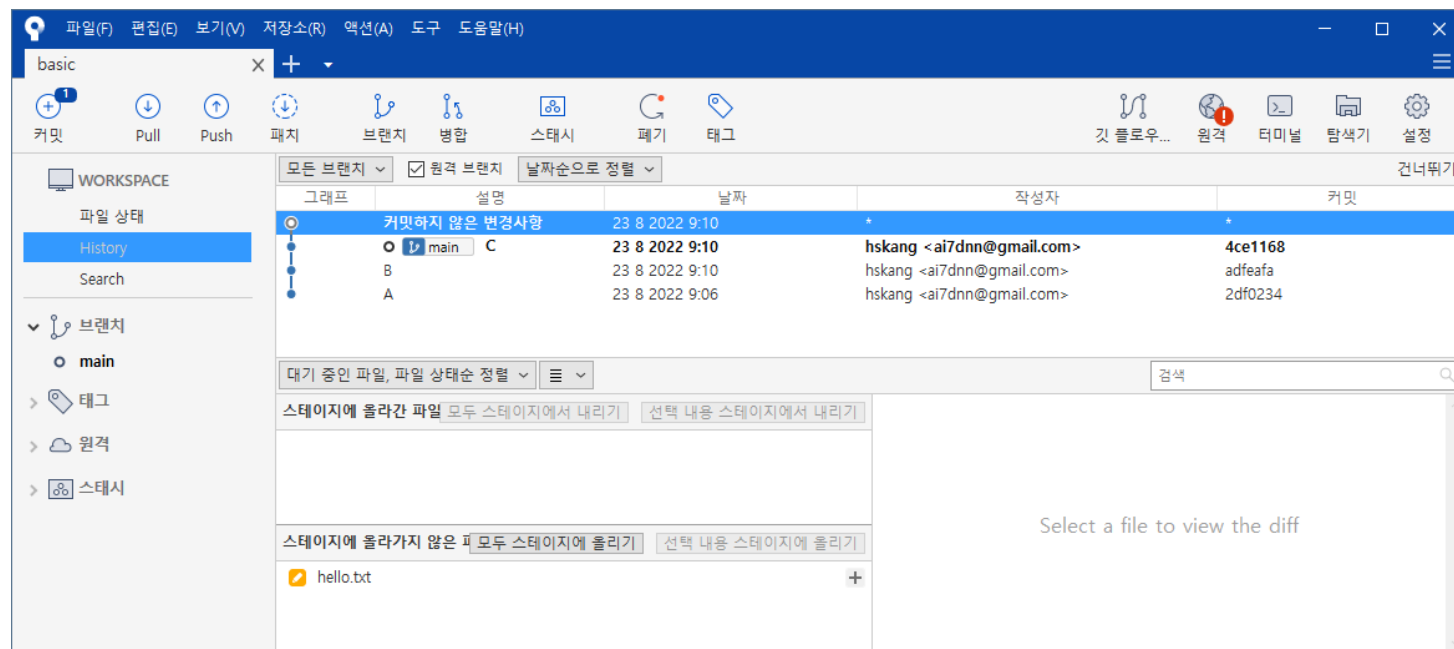
다음 커밋 이력 생성

깃과 깃허브 Python language

- Vscode와 소스트리를 오가며 작업



- 다음은 커밋 C 만들고,
 - D 저장한 이후 모습
 - 그러므로 커밋하지 않은 변경사항이 보임



The screenshot shows the Git GUI application interface. The top menu bar includes File (F), Edit (E), View (V), Repository (R), Actions (A), Tools, and Help (H). The toolbar contains icons for Commit, Pull, Push, Patch, Branch, Merge, Stash, Revert, and Tag. The left sidebar shows the Workspace with options for File Status, History, and Search. The main area displays the commit history for the 'main' branch, sorted by commit date. Below the history, the file 'hello.txt' is selected, showing its diff from the previous commit. The diff shows changes to the file's content, with new lines highlighted in green and removed lines in red.

| 그래프 | 설명 | 날짜 | 작성자 | 커밋 |
|-----|----|----------------|---------------------------|---------|
| D | | 23 8 2022 9:13 | hskang <ai7dnn@gmail.com> | f6e0faa |
| C | | 23 8 2022 9:10 | hskang <ai7dnn@gmail.com> | 4ce1168 |
| B | | 23 8 2022 9:10 | hskang <ai7dnn@gmail.com> | adfeafa |
| A | | 23 8 2022 9:06 | hskang <ai7dnn@gmail.com> | 2df0234 |

파일 상태순 정렬

hello.txt

커밋: f6e0faa713656125c972da5f95c7fd5a5c639ed9 [f6e0faa]
 상위 항목: 4ce116837f
 작성자: hskang <ai7dnn@gmail.com>
 날짜: 2022년 8월 23일 화요일 오전 9:13:58
 커밋한 사람: hskang

D

hello.txt

1 부분: 1-4 줄

코드용치 되돌리기

```

1 1 ... A
2 2 ... B
3 3 ... C
  3 ... No newline at end of file
  4 ... C
  4 ... D
  4 ... No newline at end of file
  
```