

# 소스트리 기초

Version Control and  
Git & Github basics

강환수 교수



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Who Lead  
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# 01

## 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: 

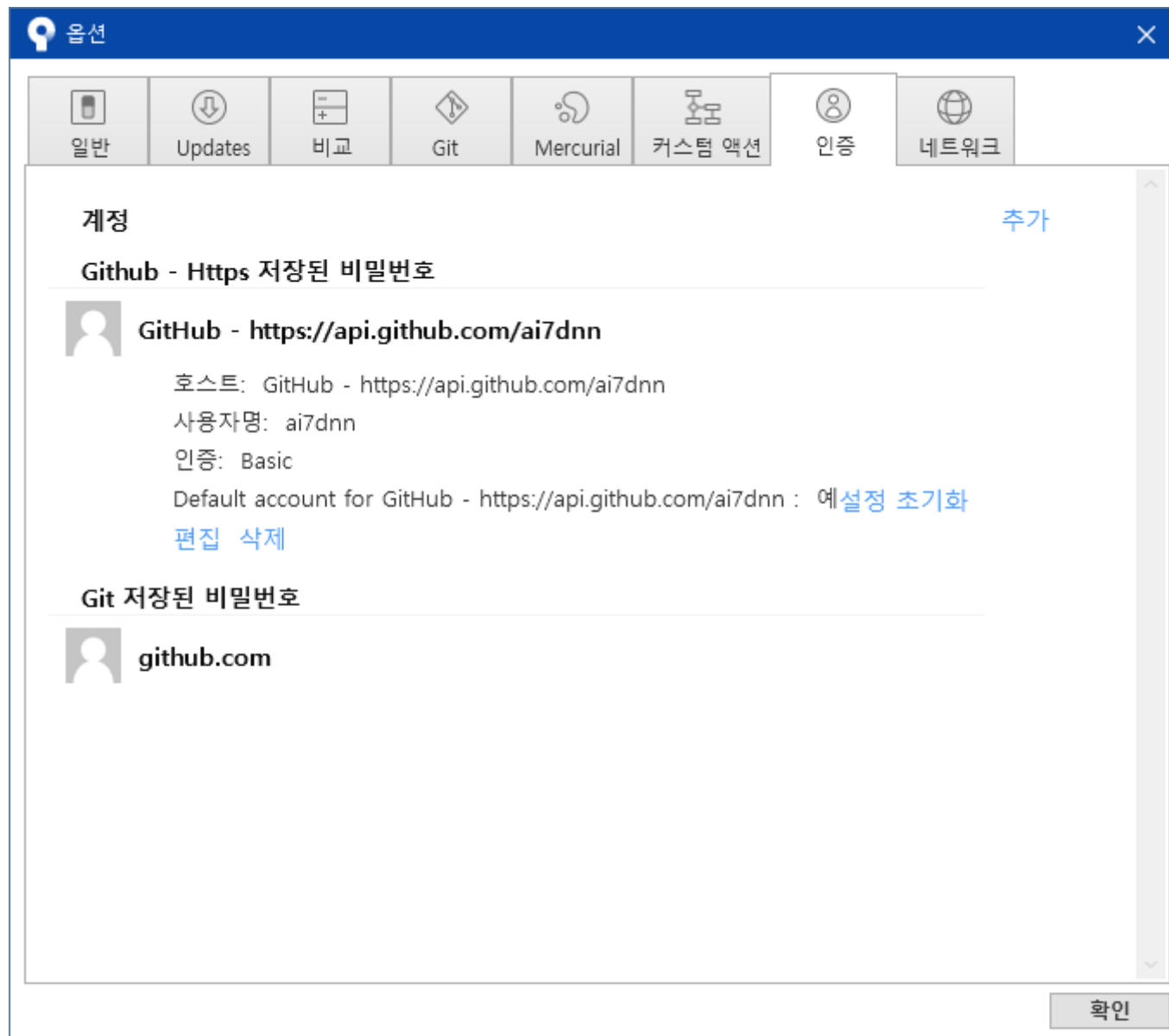
utf-8

☒ 파기 작업 시 백업 유지

☒ 파일 변경 시 자동으로 새로그침

확인

- 인증



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## 02

### 복제

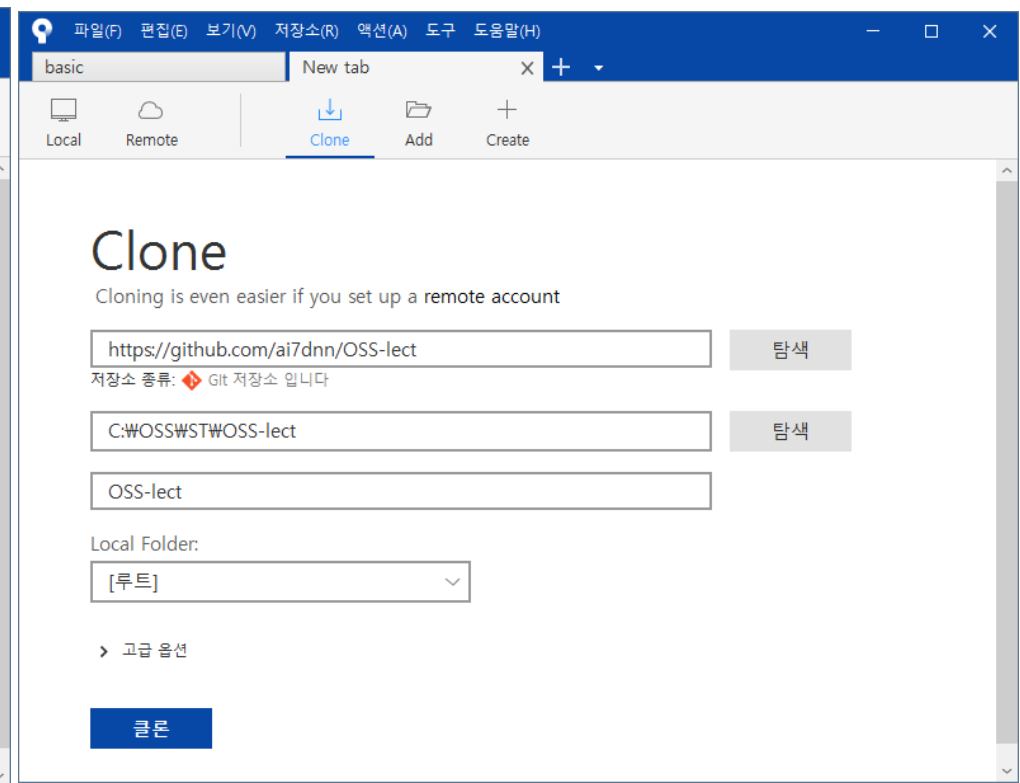
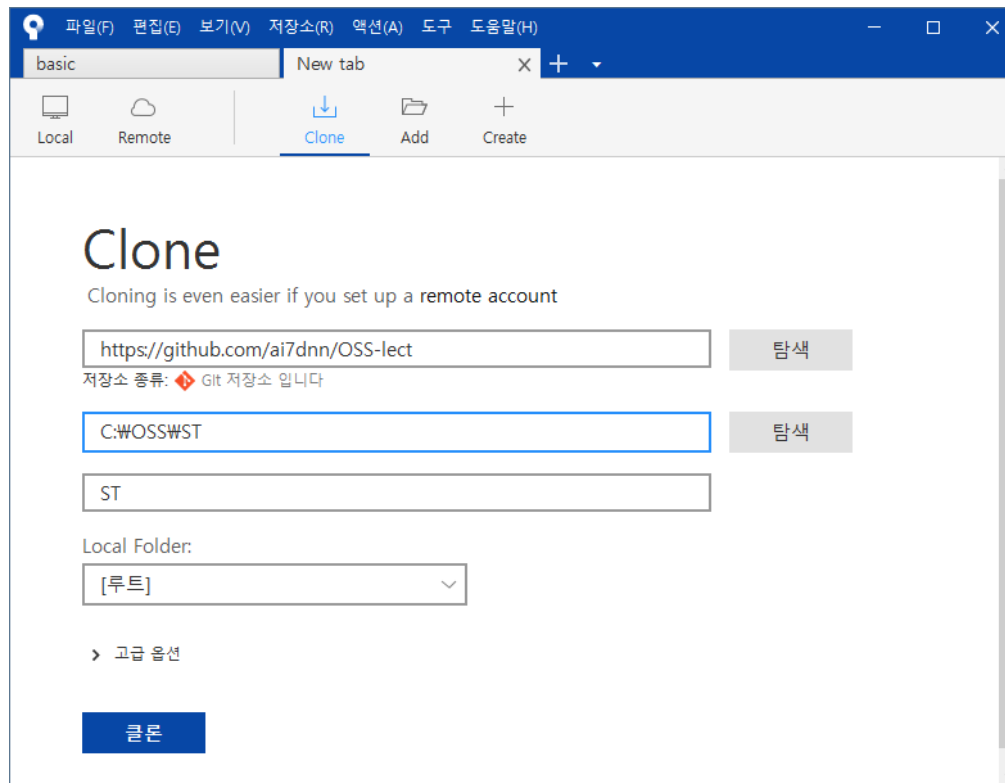


## 다음 중에서 3개의 원격저장소 복제

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>

- 다음과 같이 지정 후
- 두 번째 실제 폴더 하부에 원저장장소 이름을 입력
  - OSS-lect
    - 기존의 폴더로 직접 사용하면 오류



## • 탐색기로 폴더도 확인

The screenshot shows the GitHub Desktop application interface. The top bar includes a search icon and menu options: 파일(F), 편집(E), 보기(V), 저장소(R), 액션(A), 도구, and 도움말(H). Below this is a toolbar with icons for commit, pull, push, fetch, branch, merge, stash, reset, and tag. The main window is titled 'basic' and 'OSS-lect'. The left sidebar shows the 'WORKSPACE' section with '파일 상태', 'History', and 'Search' options. The '브랜치' (Branches) section is expanded, showing the 'main' branch. The '태그' (Tags) section is also expanded. The '원격' (Remote) section is expanded, showing the 'origin' remote. The '스테시' (Stashes) section is expanded. The main area displays a commit history table with columns for '그래프' (Graph), '설명' (Description), '날짜' (Date), '작성자' (Author), and '커밋' (Commit). The table shows a series of 'Update README.md' commits. Below the table, the '파일 상태' (File Status) section shows the 'README.md' file. The 'README.md' file content is displayed in the right pane, showing a list of links and a section for '깃과 깃허브를 사랑하기 위한 유튜브 영상' (YouTube videos for loving Git and GitHub).

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

파일 상태: README.md

커밋: 6571aea1a92de5f43680f46ed50c921d349553d6 [6571aea]  
 상위 항목: d39ea7d6a2  
 작성자: ai7dnn <70050528+ai7dnn@users.noreply.github.com>  
 날짜: 2022년 8월 22일 월요일 오후 1:44:52  
 커밋한 사람: GitHub

Update README.md

README.md

1 부분: 6-18 줄

코드용지 되돌리기

```

6 6 ...
7 7 ...
8 8 ... ## 관련 SW 설치 및 활용
9 9 ... [깃](https://git-scm.com)
10 10 ... [깃 설치](https://www.youtube.com/watch?v=JKT91a0APIs)
11 11 ... [깃 설치 동영상](https://www.youtube.com/watch?v=JKT91a0APIs)
12 12 ... [Source Tree](https://sourcetreeapp.com)
13 13 ... [Source Tree 설치](https://www.youtube.com/watch?v=9aHCdbF)
14 14 ... [Source Tree 설치 동영상](https://www.youtube.com/watch?v=9aHCdbF)
15 15 ... [파이썬](https://jetbrains.com)
16 16 ... [파이썬 설치](https://www.youtube.com/watch?v=IQ7p10q88ME)
17 17 ... [파이썬 설치 동영상](https://www.youtube.com/watch?v=IQ7p10q88ME)
18 18 ... [vscode](https://code.visualstudio.com)
19 19 ... [vscode 설치](https://www.youtube.com/watch?v=ltvaJ6vr19M)
20 20 ... [vscode 설치 동영상](https://www.youtube.com/watch?v=ltvaJ6vr19M)
21 21 ... ## 깃과 깃허브를 사랑하기 위한 유튜브 영상
22 22 ... [드림코드 50분](https://www.youtube.com/watch?v=Z9dvM7qgN9s),
    
```



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 left sidebar shows the 'WORKSPACE' section with '파일 상태', 'History', and 'Search' options. The main area is divided into two panes. The top pane shows a commit history table with columns for '그래프', '설명', '날짜', '작성자', and '커밋'. The bottom pane shows a diff for the file 'promisor-remote.c', with line numbers and code changes highlighted in green and red.

| 그래프         | 설명   | 날짜             | 작성자   | 커밋       |
|-------------|--|----------------|---|----------|
| origin/seen | Merge branch 'sg/xalloc-cocci-fix' into seen               | 23 8 2022 7:09 | Junio C Hamano <gitster@pobox.com>          | 95d69e2  |
|             | Merge branch 'ad/preload-plugin-memleak' into seen         | 23 8 2022 7:08 | Junio C Hamano <gitster@pobox.com>          | 3980644  |
|             | preload-index: fix memleak                                 | 23 8 2022 7:08 | Anthony Delannoy <anthony.2lanoy@gmail.com> | 2357890  |
|             | promisor-remote: fix xalloc() argument order               | 23 8 2022 7:07 | SZEDER Gábor <szeder.dev@gmail.com>         | 294b340  |
|             | Merge branch 'ds/bundle-uri-3' into seen                   | 23 8 2022 6:24 | Junio C Hamano <gitster@pobox.com>          | 45a6cf2c |
|             | ###  | 23 8 2022 6:24 | Junio C Hamano <gitster@pobox.com>          | f7065d0: |
|             | Merge branch 'cw/remote-object-info' into seen             | 23 8 2022 6:24 | Junio C Hamano <gitster@pobox.com>          | 5469cc5  |
|             | Merge branch 'ag/merge-strategies-in-c' into seen          | 23 8 2022 6:00 | Junio C Hamano <gitster@pobox.com>          | 5b705a2  |
|             | Merge branch 'es/mark-gc-cruft-as-experimental' into seen  | 23 8 2022 6:00 | Junio C Hamano <gitster@pobox.com>          | a40ca5ff |
|             | Merge branch 'js/bisect-in-c' into seen                    | 23 8 2022 6:00 | Junio C Hamano <gitster@pobox.com>          | 466539f  |
|             | Merge branch 'po/glossary-around-traversal' into seen      | 23 8 2022 6:00 | Junio C Hamano <gitster@pobox.com>          | 022fc46  |
| origin/next | Merge branch 'es/fix-chained-tests' into next              | 23 8 2022 6:00 | Junio C Hamano <gitster@pobox.com>          | 3774cfd  |
|             | Merge branch 'en/ort-unused-code-removal' into next        | 23 8 2022 6:00 | Junio C Hamano <gitster@pobox.com>          | f09dbeec |
|             | Merge branch 'tl/trace2-config-scope' into next            | 23 8 2022 6:00 | Junio C Hamano <gitster@pobox.com>          | 75a09c7  |
|             | Merge branch 'sg/parse-options-subcommand' into next       | 23 8 2022 6:00 | Junio C Hamano <gitster@pobox.com>          | 09d07c2  |
|             | Merge branch 'vd/fix-perf-tests' into next                 | 23 8 2022 6:00 | Junio C Hamano <gitster@pobox.com>          | e68356e  |
|             | Merge branch 'mg/sequencer-untranslate-reflog' into next   | 23 8 2022 6:00 | Junio C Hamano <gitster@pobox.com>          | 75aadeb1 |
|             | Merge branch 'jk/unused-fixes' into next                   | 23 8 2022 6:00 | Junio C Hamano <gitster@pobox.com>          | 2fe4de2  |
|             | Merge branch 'en/merge-unstash-only-on-clean-merge' into j | 23 8 2022 5:39 | Junio C Hamano <gitster@pobox.com>          | aba041fe |

커밋: 95d69e2ce0ab3398c381c3493430e1ad04e690a5 [95d69e2]  
 상위 항목: 3980644f1f, 294b340a0e  
 작성자: Junio C Hamano <gitster@pobox.com>  
 날짜: 2022년 8월 22일 월요일 오후 3:09:38  
 커밋한 사람: Junio C Hamano

Merge branch 'sg/xalloc-cocci-fix' into seen

\* sg/xalloc-cocci-fix:  
 promisor-remote: fix xalloc() argument order

promisor-remote.c

```

146 146 .....if (r->promisor_remote_config)
147 147 .....return;
148 148 .....config = r->promisor_remote_config =
149 149 .....xalloc(sizeof(*r->promisor_remote_config), 1);
150 150 .....xalloc(1, sizeof(*r->promisor_remote_config));
151 151 .....config->promisors_tail = &config->promisors;
152 152 .....repo_config(r, promisor_remote_config, 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 the 'WORKSPACE' section with links to '파일 상태', 'History', 'Search', '브랜치', '태그', '원격', and '스테시'. The main content area shows the commit history for the 'origin/master' branch, listing commits with their hashes, authors, and dates. The bottom section displays the code for the file 'tensorflow/core/kernels/quantize\_and\_dequantize\_op.cc', showing the quantization and dequantization logic.

| Commit Hash                              | Author               | Date         | Message                                       |
|--|----------------------|--------------|---|
| abc3ca2094639517358101235244fa20ff165ed9 | Dan Suh              | 2022년 7월 27일 | Cleanup legacy Python2 compatibility on 1     |
| 5e85b62af01639f                          | A. Unique TensorFlow | 2022년 8월 23일 | [TFG] Fix IsAdd string type check in tf_op_   |
| af01639f                                 | A. Unique TensorFlow | 2022년 8월 23일 | Disable a test that fails with the new latenc |
| d177ebe                                  | A. Unique TensorFlow | 2022년 8월 23일 | [PJRT:C] Fix to PJRT_Event_OnReady when       |
| e6df768l                                 | A. Unique TensorFlow | 2022년 8월 23일 | Update dependency on rocm in compiler/        |
| 860b963                                  | A. Unique TensorFlow | 2022년 8월 23일 | Automated visibility attribute cleanup.       |
| 869d2ad                                  | A. Unique TensorFlow | 2022년 8월 23일 | Fix invalid assumption in BreakUpIslands p    |
| 2d37bb6                                  | A. Unique TensorFlow | 2022년 8월 23일 | Pass IndexedSlices through CompositeTen       |
| 2b700aa                                  | A. Unique TensorFlow | 2022년 8월 23일 | template AbslHashValue for CallSignature      |
| 34c0b73                                  | A. Unique TensorFlow | 2022년 8월 23일 | origin/r2.9 Merge pull request #573           |
| 07400b4                                  | A. Unique TensorFlow | 2022년 8월 23일 | Update tensorflow/python/kernel_tests/qu      |
| ca1d3af5                                 | A. Unique TensorFlow | 2022년 8월 23일 | [SE:GPU] Fix linkage problem.                 |
| fa2cd0a6                                 | A. Unique TensorFlow | 2022년 8월 23일 | Move tensorflow/stream_executor/rocm to       |
| 2cef616i                                 | A. Unique TensorFlow | 2022년 8월 23일 | Validate the rank and number of elements      |
| 0f380d4                                  | A. Unique TensorFlow | 2022년 8월 23일 | [sparse][mhlo] Lowering ConcatenateOp u       |
| 9bc1ba7                                  | A. Unique TensorFlow | 2022년 8월 23일 | Update TFRT dependency to use revision h      |

The code snippet for 'tensorflow/core/kernels/quantize\_and\_dequantize\_op.cc' shows the quantization and dequantization logic, including the definition of the 'Eigen::ThreadPoolDevice' and 'Eigen::GpuDevice' types, and the implementation of the 'QuantizeAndDequantizeV3' function.

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 and image pasting.

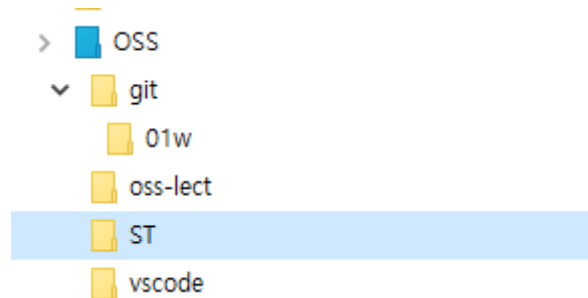
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## 03

### 지역 저장소 생성과 이력 관리

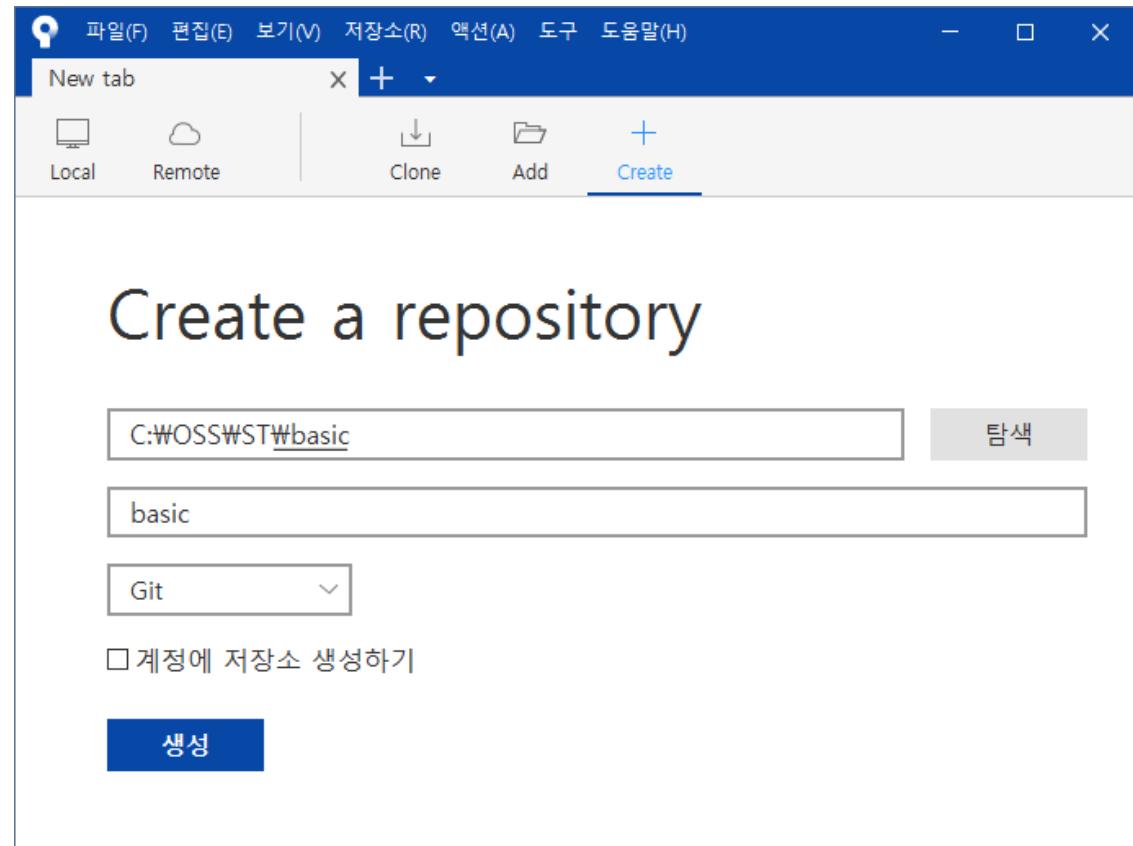
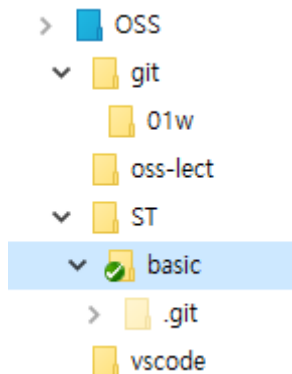


- 지역 저장소 생성 기준
  - 처음, 기준을 정하고 하부에 만들어 보도록
    - 폴더 ST 하부에

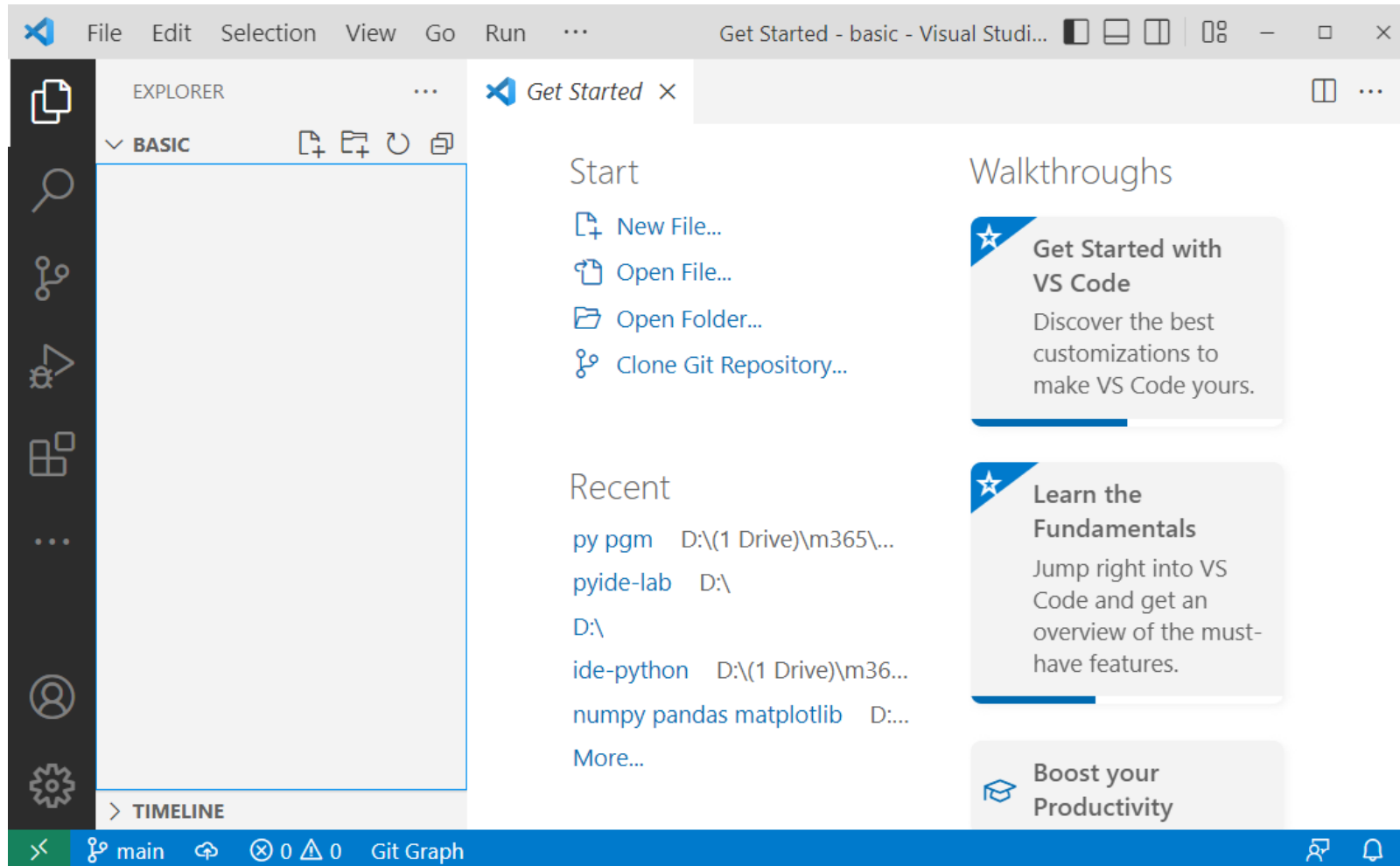


- 편집기 하나 준비
  - vscode

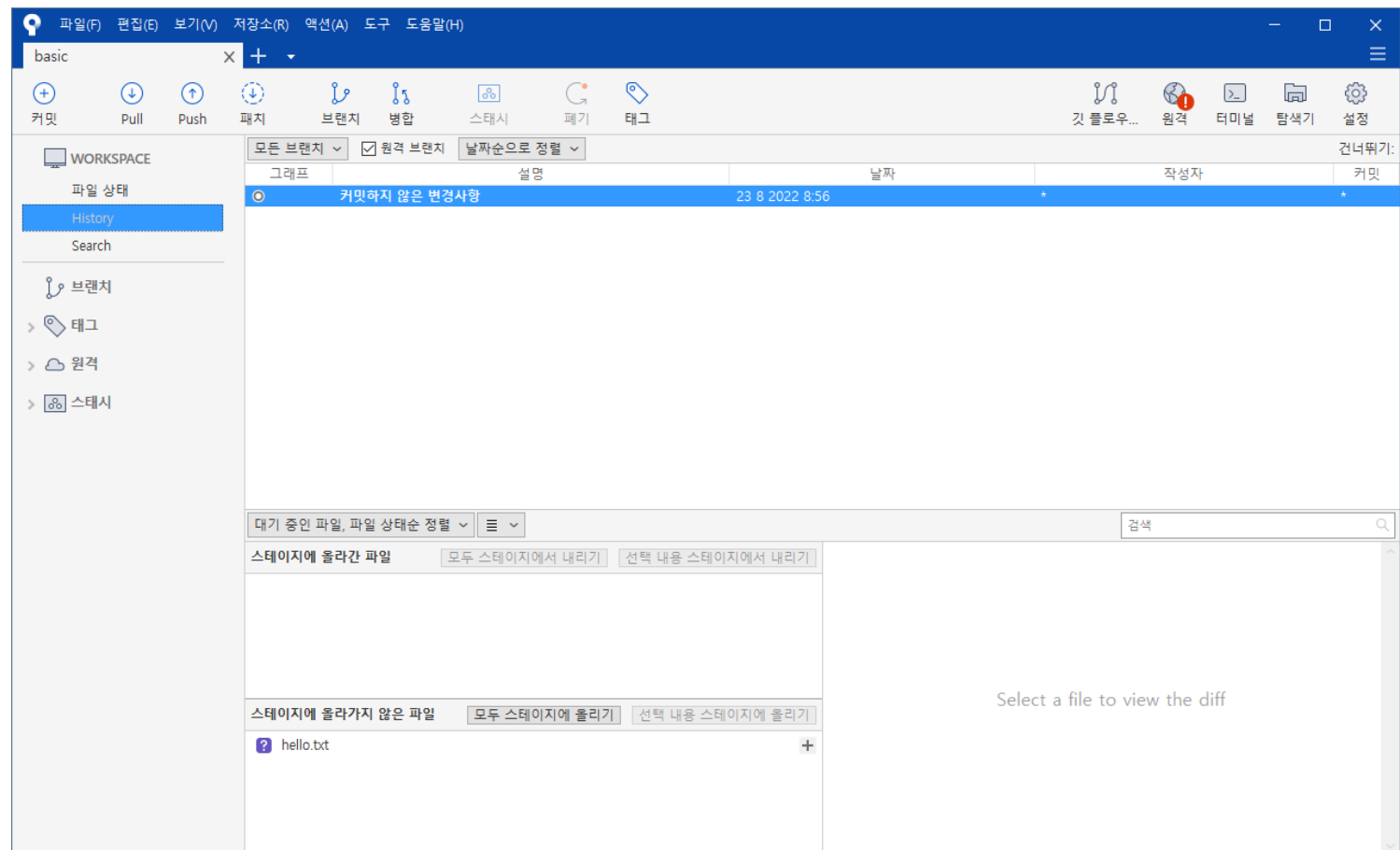
- 메뉴 create
- 탐색으로 기준 폴더를 정하고
  - 하부에 생성 폴더 이름을 기술
    - Wbasic 을 기술
- 생성 클릭
  - 성공 확인



- 폴더 basic
  - 탐색기 메뉴 'code로 열기'

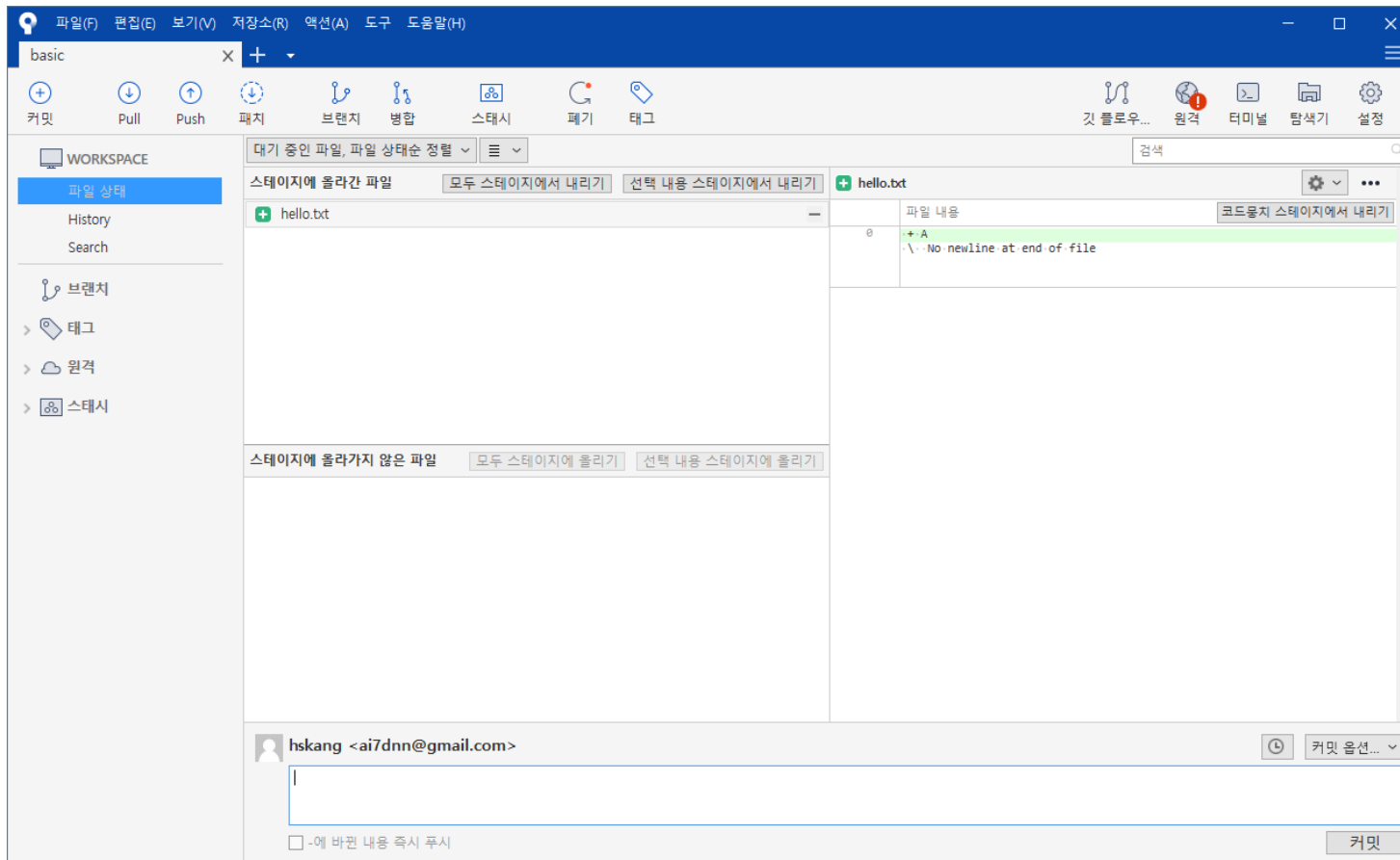


- 입력 후 저장(ctrl + s)
  - A
- 왼쪽 WORKSPACE 하부 History 클릭
  - 커밋이력
  - 스테이지
  - 작업디렉토리

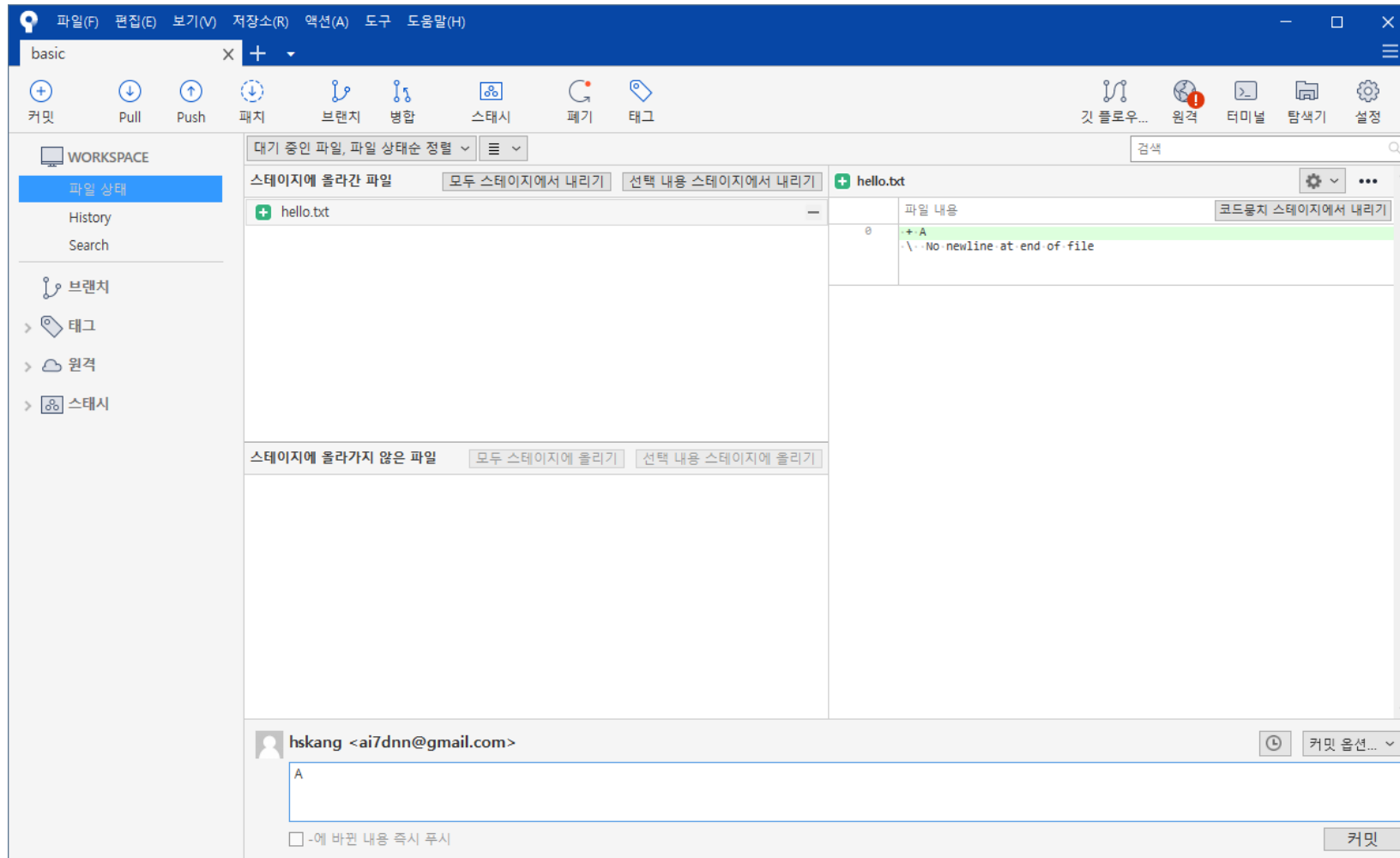




- Ass
  - 파일 hello.txt
    - + 클릭 or 스테이지로 드래그
- 왼쪽 '파일 상태' 클릭

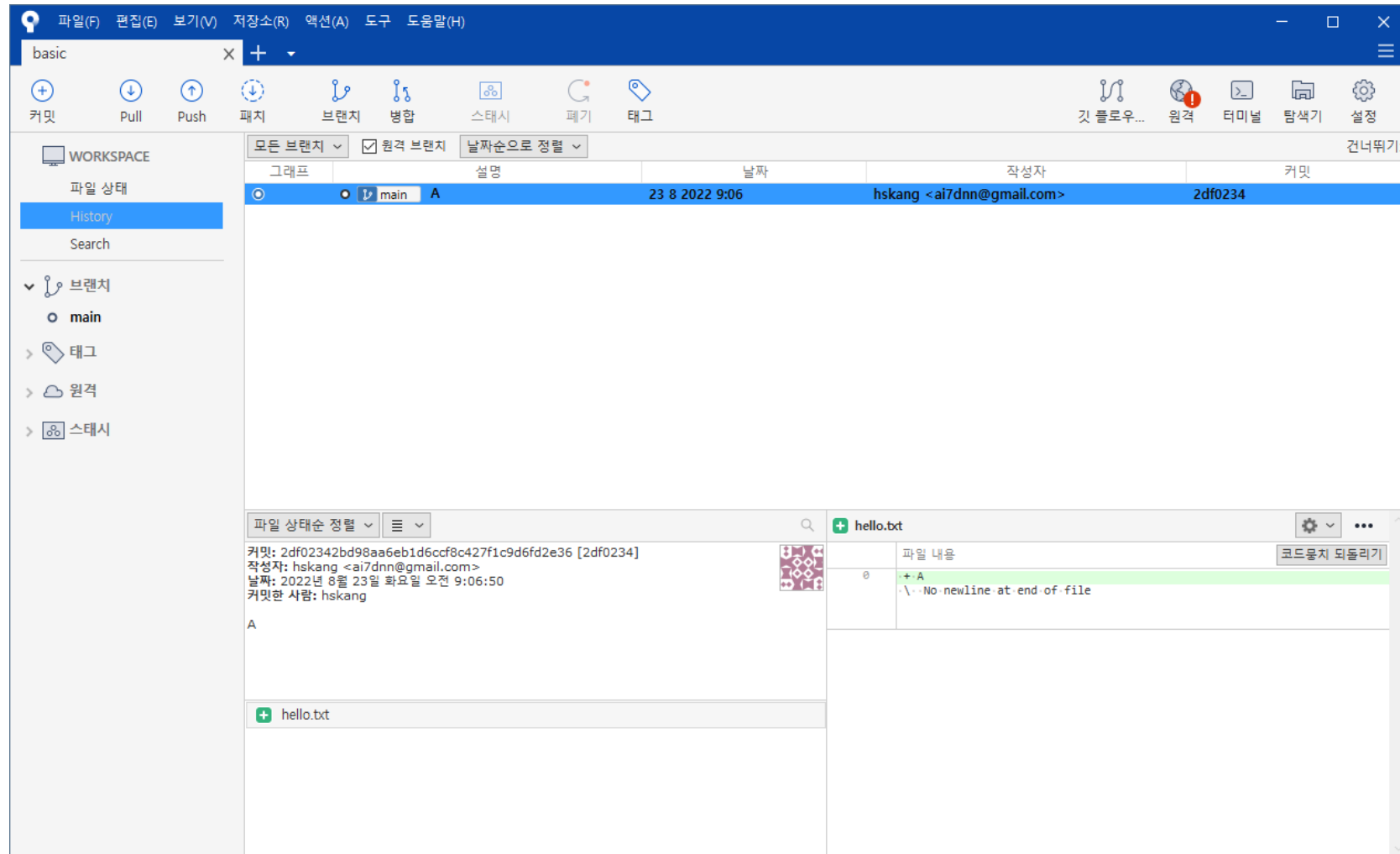


- 커밋 메시지 입력 후 | 우측 하단 '커밋' 클릭
  - 간단히 A



# 첫 커밋 성공

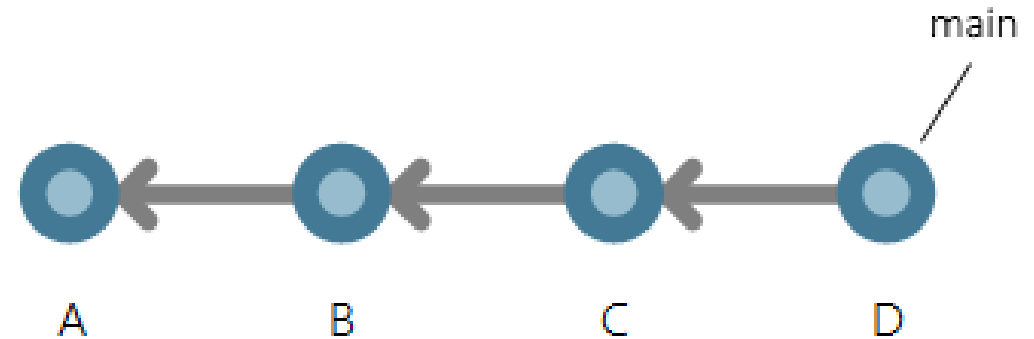
깃과 깃허브 Python language



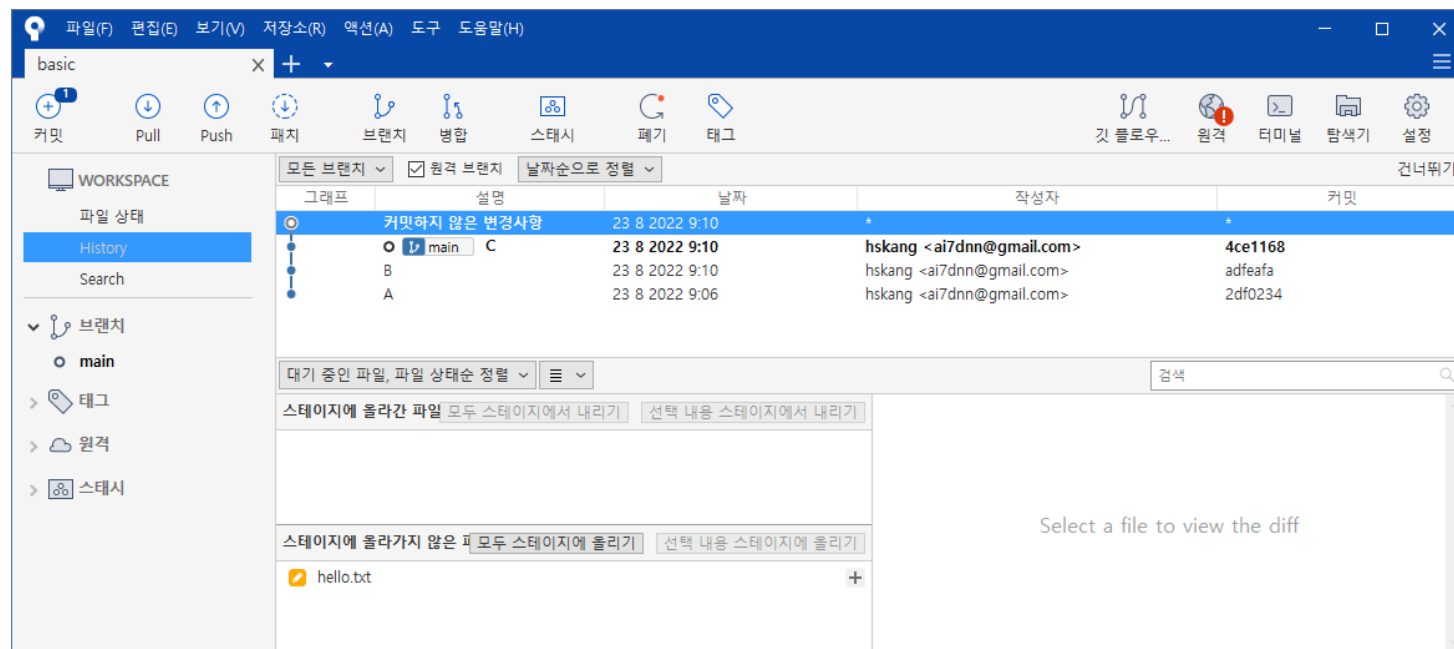
# 다음 커밋 이력 생성

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 table.

| 그래프    | 설명 | 날짜             | 작성자                       | 커밋      |
|--------|----|----------------|---------------------------|---------|
| ○ main | 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 |

Below the commit history, the file status section shows the file 'hello.txt' with a diff view. The diff shows changes from commit 4ce116837f to f6e0faa. The changes include adding lines C and D, and removing lines A and B. The diff is highlighted with green for additions and red for deletions.