

# Lecture Note 4.

# GitHub

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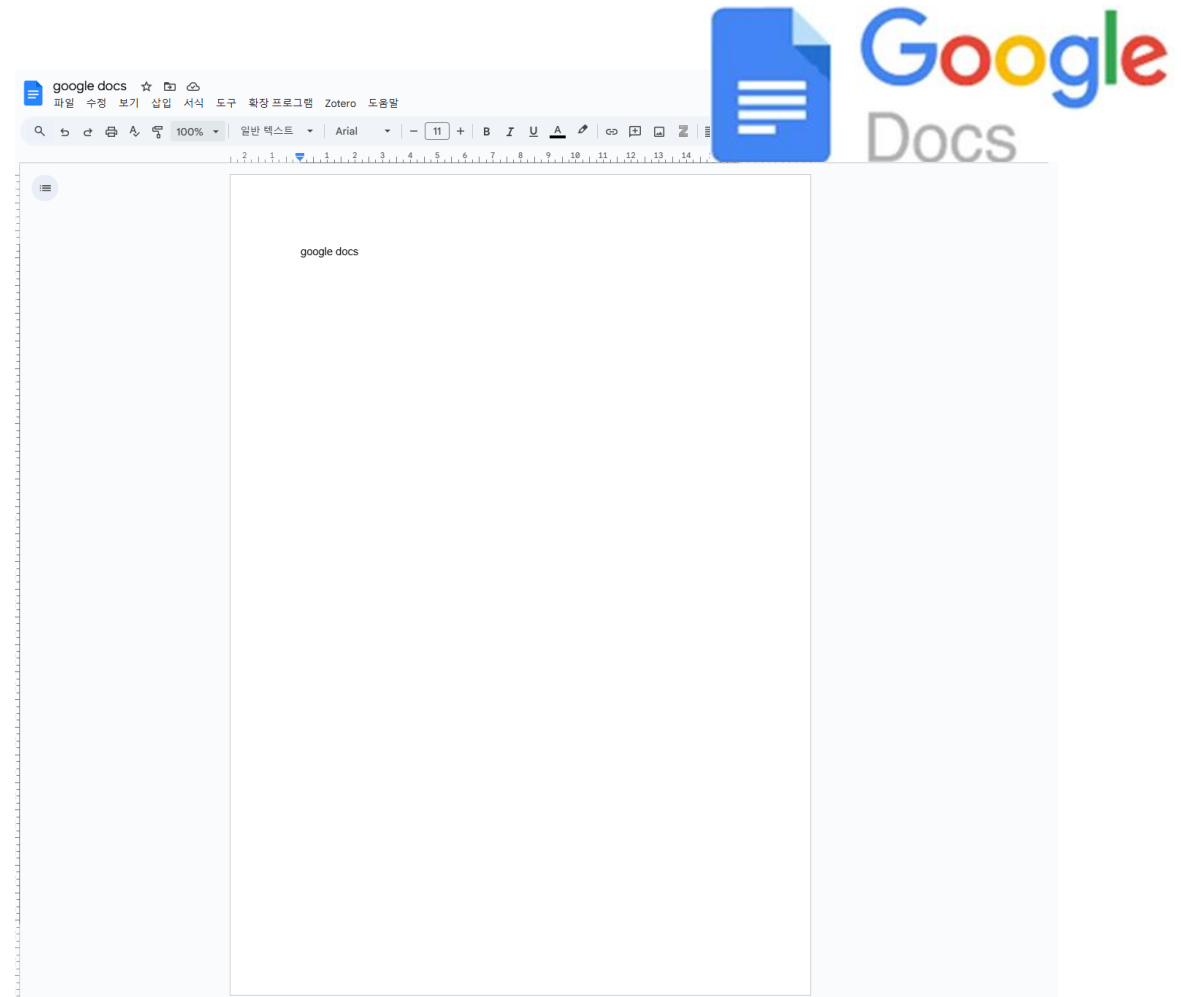
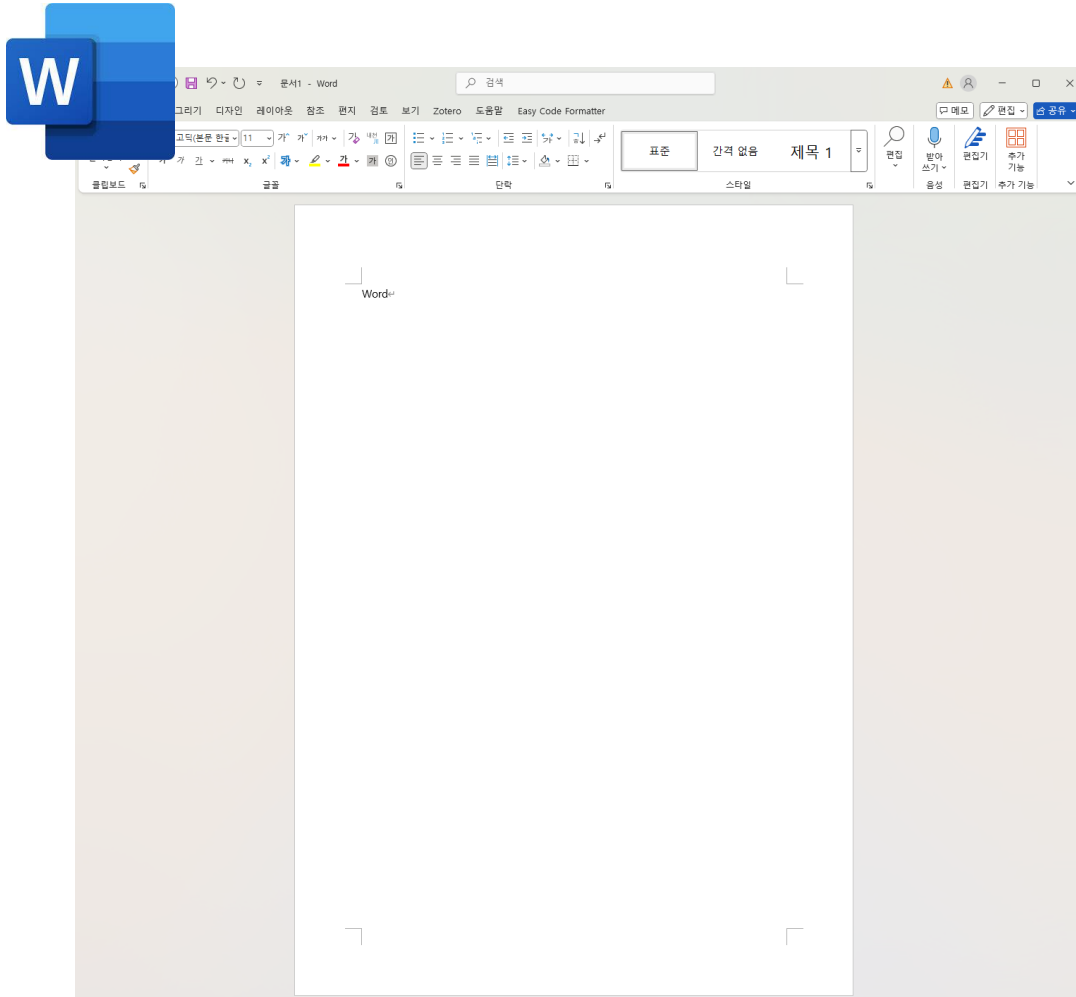
# Contents

---

- Local Repository and Remote Repository
- GitHub
  - What is github?
  - How to use github?
- Vim
  - What is Vim?
  - How to use vim in Linux?
- Practice

# Local Repository and Remote Repository (1/3)

- Local Repository, Remote Repository



# Local Repository and Remote Repository (2/3)

- **Remote Repository**

- **SourceForge**

- 오래된 오픈소스 프로젝트 저장소

- **GitHub**

- Microsoft
    - 오픈소스 커뮤니티와 협업에 강함
    - 가장 인기 많은 원격 저장소

- **GitLab**

- 내부 서버 설치 가능
    - 비용 대비 많은 저장용량
    - 커스터마이징 가능
    - 기업 사내 서버로 운영 적합

- **Bitbucket**

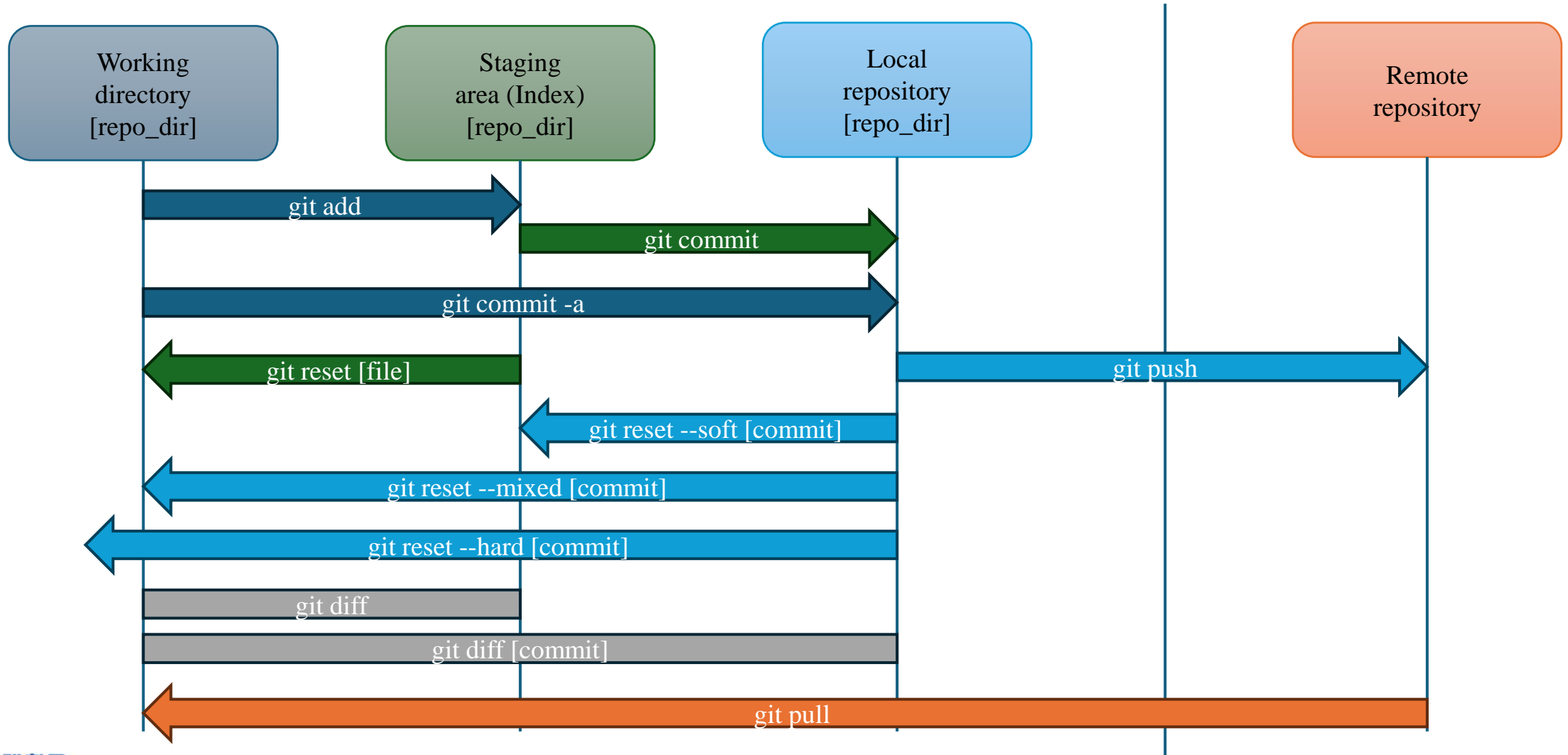
- **AWS CodeCommit**

- **Azure DevOps Repos**



# Local Repository and Remote Repository (3/3)

- Local Repository, Remote Repository



# GitHub (1/20)

---

- **What is GitHub?**

- A service for managing and sharing Git repositories on the internet.
- Acquired by Microsoft on June 4, 2018.

- **Why use GitHub?**

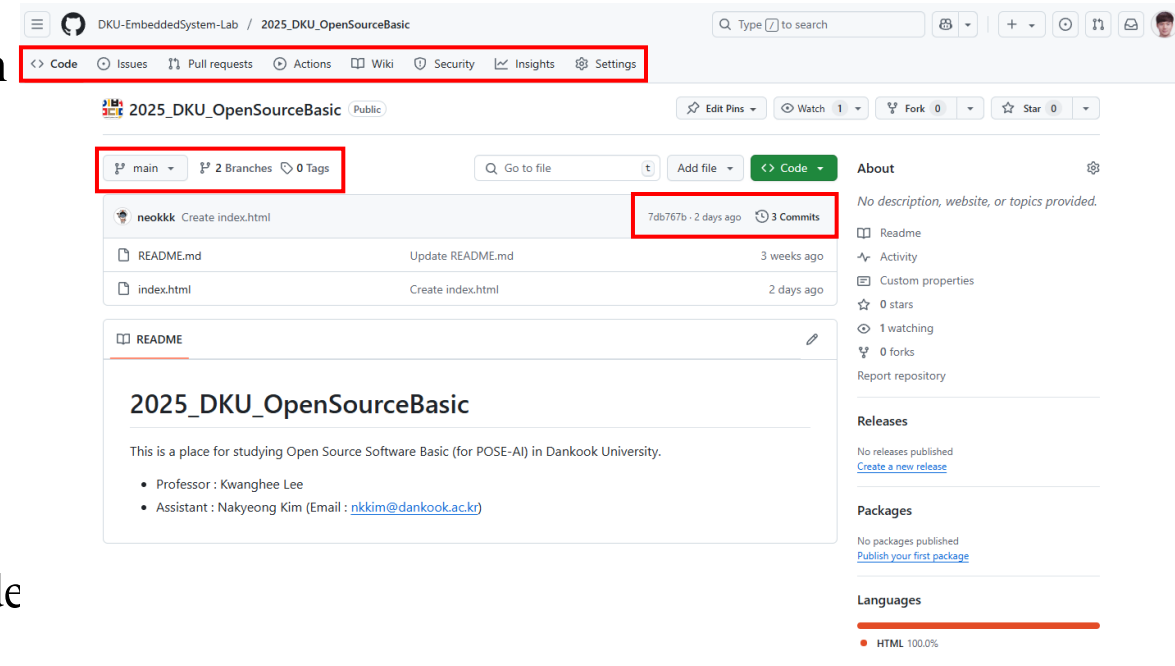
- Collaboration
  - Multiple people can work on the same codebase simultaneously.
- Backup
  - Code is safely stored on the internet.
- History
  - Track who changed what and when.
- Testing
  - Automatically run tests with GitHub Actions.
- Sharing
  - Great for contributing to open-source projects or showcasing your work.



# GitHub (2/20)

- **What is GitHub?**

- Code
  - View the actual code in the repository
- Pull requests
  - View and manage requests to merge code into branches
- Actions
  - Set up and manage CI/CD workflows and automation
- Issues
  - Track bugs, feature requests, and other tasks
- Wiki
  - Host documentation for the project
- Insights
  - Analyze the project's activity and contributions
- Commits
  - View the commit history for changes made to the code
- Branches
  - View the list of branches in the repository



# GitHub – How to use GitHub? (3/20)

---

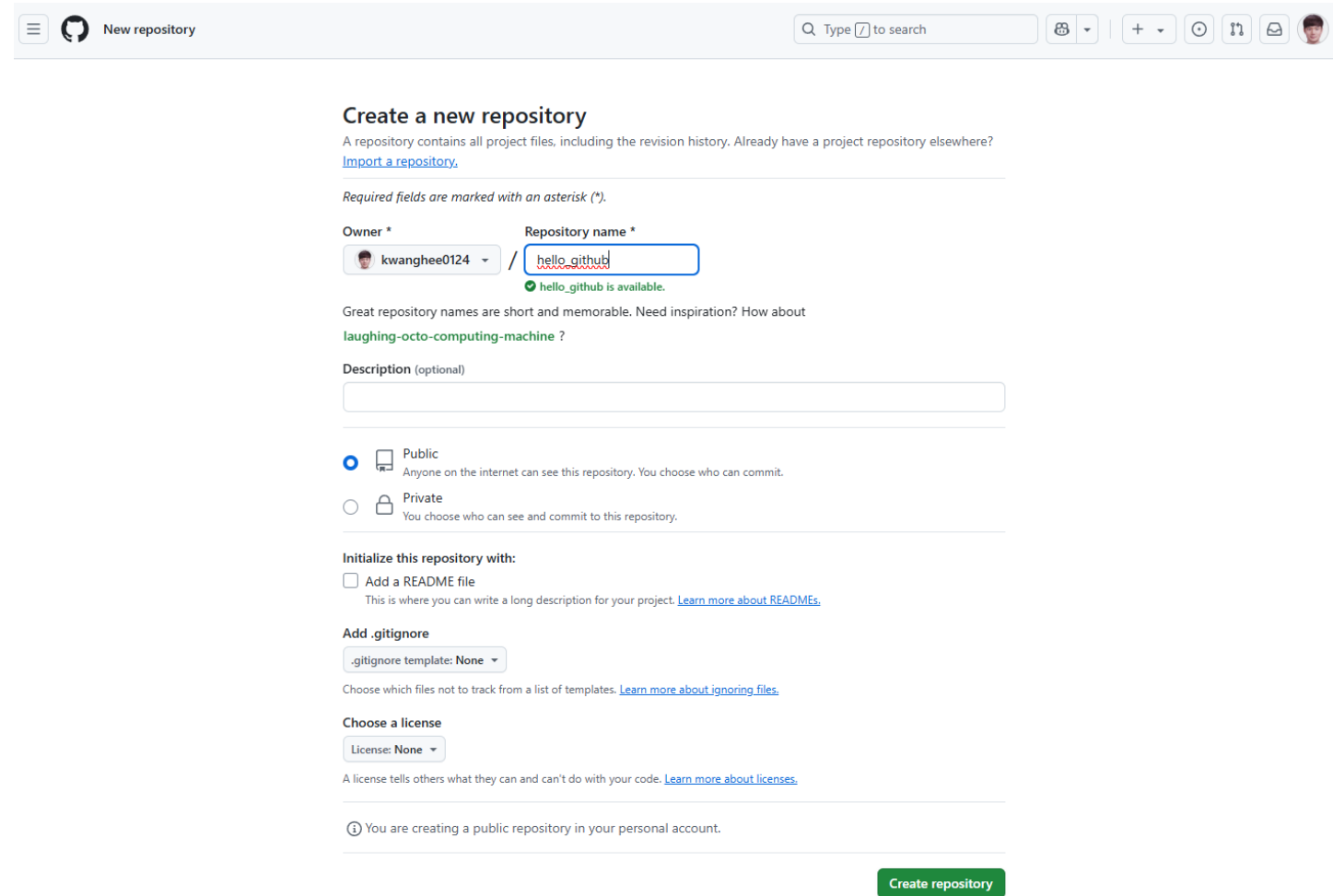
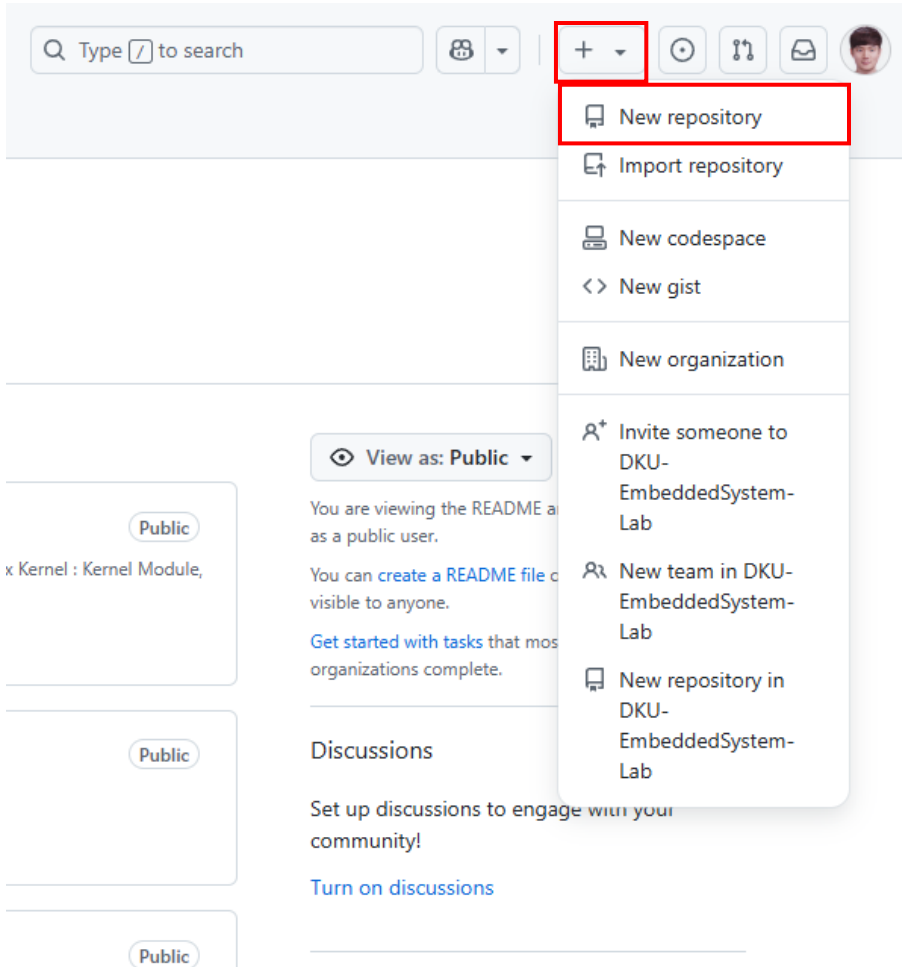
- **Git Remote Commands**

- git remote: View the list of registered remote repositories
  - -v: View detailed URLs of remote repositories (distinguishes fetch/push)
  - add [name] [url]: Add a new remote repository (commonly named origin)
- git clone: Clone a remote repository to the local machine.
- git fetch
  - [remote]: Fetch changes from the remote repository without automatically merging them.
- git pull
  - [remote] [branch]: Automatically fetch and merge changes from the remote repository in one step.
- git push
  - [remote] [branch]: Upload a local branch to the remote repository.



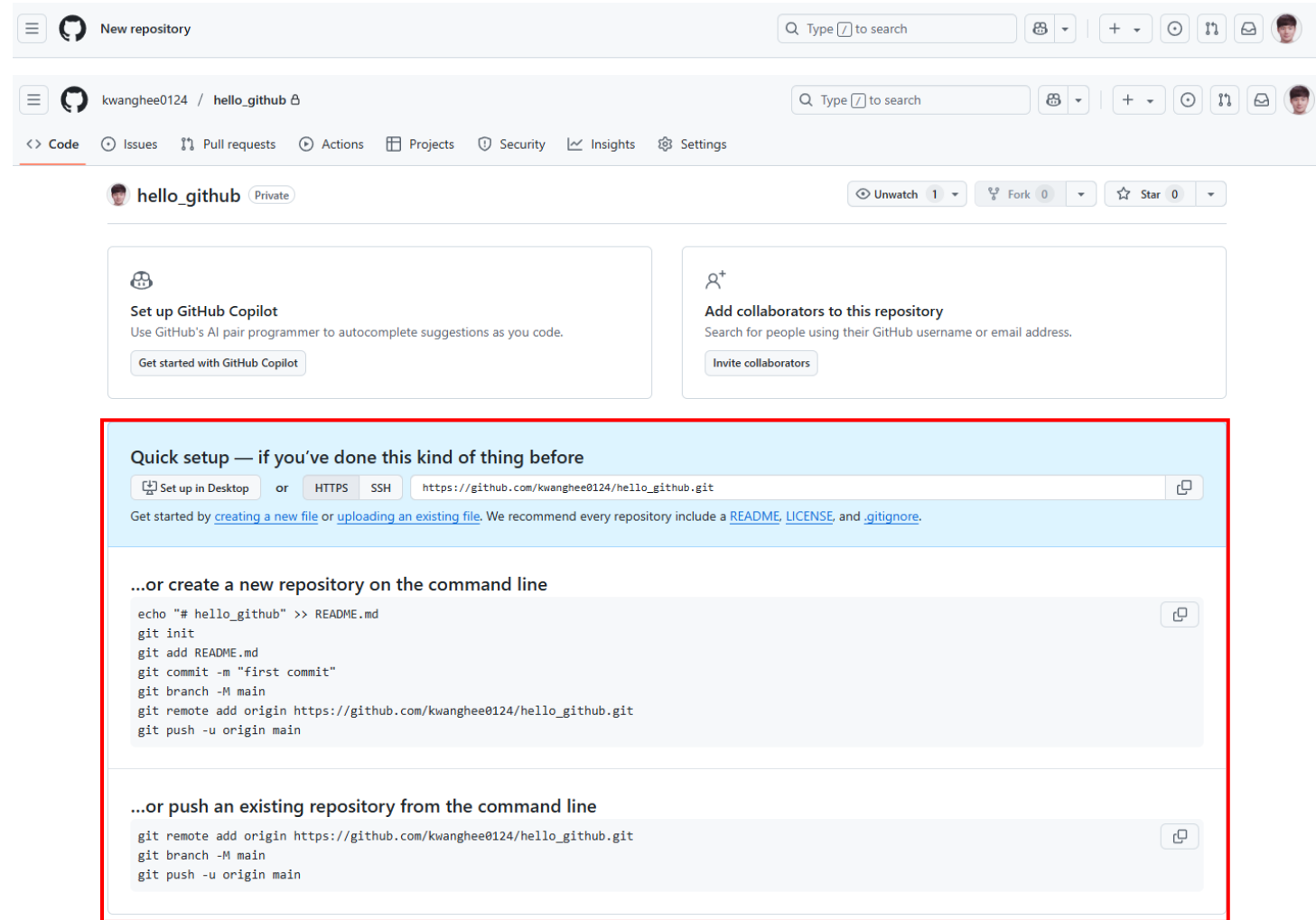
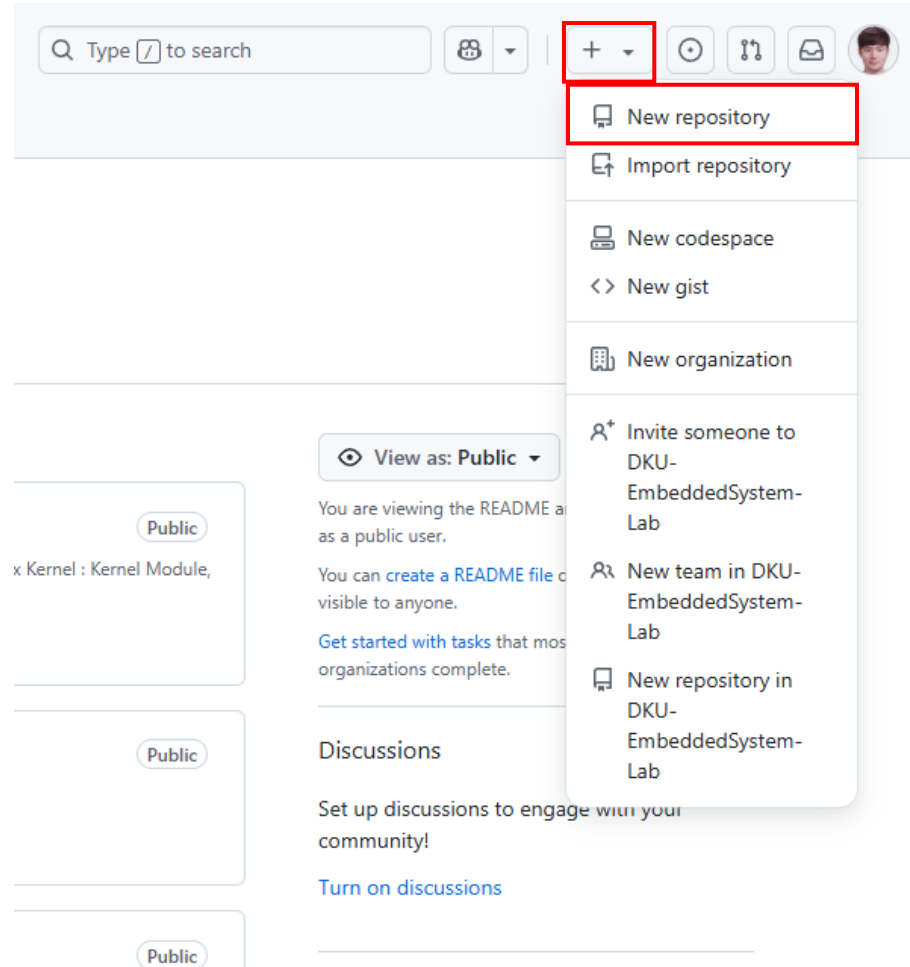
# GitHub – How to use GitHub? (4/20)

- Make Remote Repository



# GitHub – How to use GitHub? (5/20)

- Make Remote Repository



ProTip! Use the URL for this page when adding GitHub as a remote.

# GitHub – How to use GitHub? (6/20)

- git remote and push

```
~/Lecture/git/repo_dir
root# ls
new_file  README  test_file
~/Lecture/git/repo_dir
root# git remote add origin https://github.com/kwanghee0124/hello_github.git
~/Lecture/git/repo_dir
root# git branch
* master
  testing
~/Lecture/git/repo_dir
root# git branch -r
~/Lecture/git/repo_dir
root# git branch -a
* master
  testing
~/Lecture/git/repo_dir
root# git push origin master
Enumerating objects: 13, done.
Counting objects: 100% (13/13), done.
Delta compression using up to 12 threads
Compressing objects: 100% (8/8), done.
Writing objects: 100% (13/13), 1.05 KiB | 1.05 MiB/s, done.
Total 13 (delta 1), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (1/1), done.
To https://github.com/kwanghee0124/hello_github.git
 * [new branch]      master -> master
```

```
~/Lecture/git/repo_dir
root# git branch
* master
  testing
~/Lecture/git/repo_dir
root# git branch -r
  origin/master
~/Lecture/git/repo_dir
root# git branch -a
* master
  testing
  remotes/origin/master
```

# GitHub – How to use GitHub? (7/20)

- git remote and push

The screenshot shows the GitHub interface for a repository named 'hello\_github' by user 'kwanghee0124'. The repository is private and has 1 branch (master) and 0 tags. The commit history shows 5 commits by 'khlee' on the master branch, with the latest commit 'c2942c2' from last week. The file list includes 'README', 'new\_file', and 'test\_file', all on the master branch and updated last week. The README content is visible, showing 'TEST' and 'Add TEST2'. The right sidebar contains links for 'About' (no description), 'Readme', 'Activity', '0 stars', '1 watching', '0 forks', 'Releases' (no releases published, with a link to 'Create a new release'), and 'Packages' (no packages published, with a link to 'Publish your first package').

kwanghee0124 / hello\_github

Type / to search

<> Code Issues Pull requests Actions Projects Security Insights Settings

hello\_github Private

Unwatch 1 Fork 0 Star 0

master 1 Branch 0 Tags

Go to file t Add file <> Code

khlee master c2942c2 · last week 5 Commits

README	master	last week
new_file	master	last week
test_file	master	last week

README

TEST  
Add TEST2

About

No description, website, or topics provided.

Readme

Activity

0 stars

1 watching

0 forks

Releases

No releases published

[Create a new release](#)

Packages

No packages published

[Publish your first package](#)

# GitHub – How to use GitHub? (8/20)

---

- **git push option**
  - -u: Push the local branch and set it as the upstream (tracking) branch.

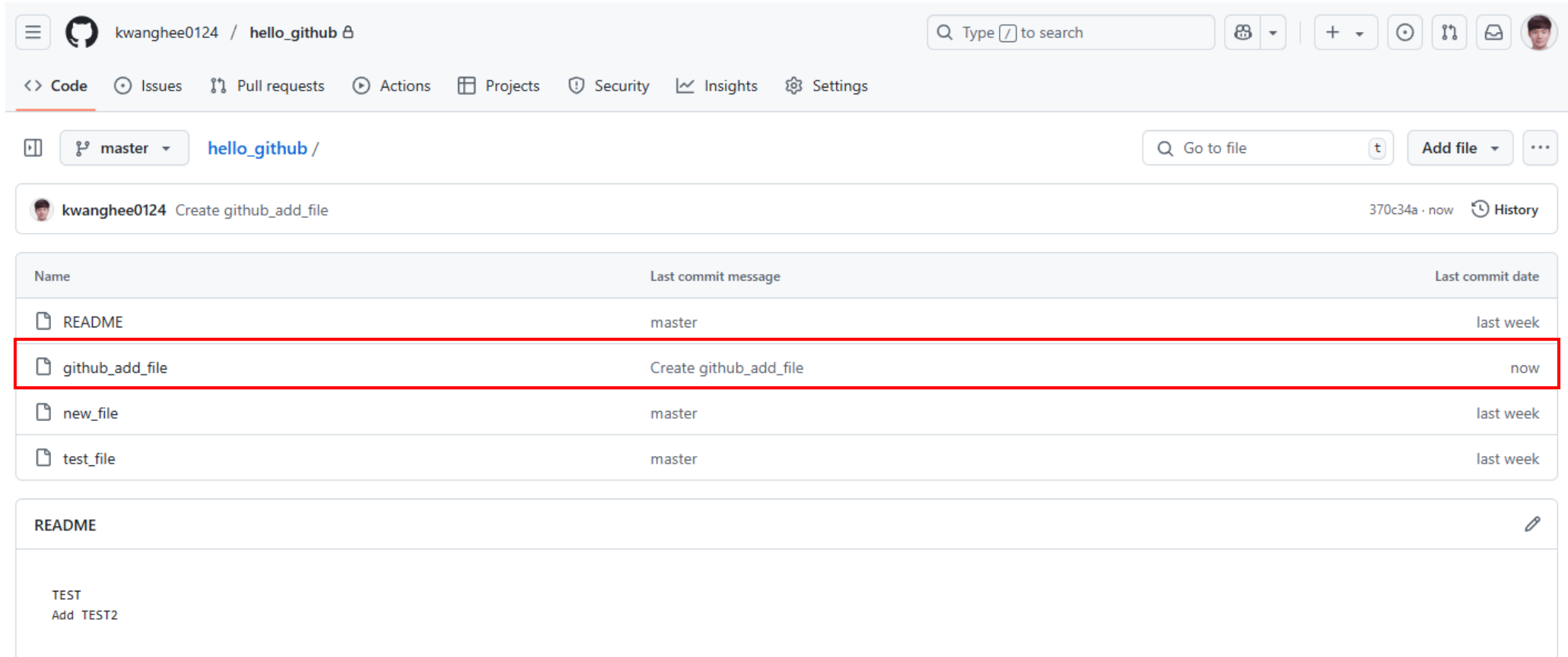
```
~/Lecture/git/repo_dir
root# git push
fatal: The current branch master has no upstream branch.
To push the current branch and set the remote as upstream, use

    git push --set-upstream origin master

~/Lecture/git/repo_dir
root# git push -u origin master
Branch 'master' set up to track remote branch 'master' from 'origin'.
Everything up-to-date
~/Lecture/git/repo_dir
root# git push
Everything up-to-date
```

# GitHub – How to use GitHub? (9/20)

- git pull



The screenshot displays the GitHub interface for a repository named 'hello\_github' owned by 'kwanghee0124'. The top navigation bar includes links for Code, Issues, Pull requests, Actions, Projects, Security, Insights, and Settings. Below this, the repository's file browser shows a list of files. The file 'github\_add\_file' is highlighted with a red border, indicating the most recent commit. The commit message for this file is 'Create github\_add\_file' and it was committed 'now'. Below the file list, a preview of the README file is shown, containing the text 'TEST' and 'Add TEST2'.

Name	Last commit message	Last commit date
README	master	last week
github_add_file	Create github_add_file	now
new_file	master	last week
test_file	master	last week

README

TEST  
Add TEST2



# GitHub – How to use GitHub? (10/20)

- git pull

```
~/Lecture/git/repo_dir
root# ls
new_file  README  test_file
~/Lecture/git/repo_dir
root# git pull origin master
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), 1000 bytes | 1000.00 KiB/s, done.
From https://github.com/kwanghee0124/hello_github
 * branch            master      -> FETCH_HEAD
    489f141..1482cba  master      -> origin/master
Updating 489f141..1482cba
Fast-forward
 github_add_file | 1 +
 1 file changed, 1 insertion(+)
 create mode 100644 github_add_file
~/Lecture/git/repo_dir
root# ls
github_add_file  new_file  README  test_file
```

# GitHub – How to use GitHub? (11/20)

- git clone

The screenshot shows the GitHub interface for the repository '2025\_DKU\_OpenSourceBasic' by 'DKU-EmbeddedSystem-Lab'. The repository is public and has 2 branches and 0 tags. The 'Code' button is highlighted with a red box, and its dropdown menu is open, showing options to clone the repository using HTTPS, SSH, or GitHub CLI, or to open it with GitHub Desktop or download a ZIP file. The repository's README is visible, stating it is a place for studying Open Source Software Basic (for POSE-AI) in Dankook University, with contact information for Professor Kwanghee Lee and Assistant Nakyeong Kim.

DKU-EmbeddedSystem-Lab / 2025\_DKU\_OpenSourceBasic

Type to search

<> Code Issues Pull requests Actions Wiki Security Insights Settings

2025\_DKU\_OpenSourceBasic Public

Edit Pins Watch 1 Fork 0 Star 0

main 2 Branches 0 Tags

Go to file Add file <> Code

kwanghee0124 Revert "1234 (#1)" (#2) 5998a76 · 2 hours ago 5 Commits

README.md Update README.md 3 weeks ago

index.html Revert "1234 (#1)" (#2) 2 hours ago

README

## 2025\_DKU\_OpenSourceBasic

This is a place for studying Open Source Software Basic (for POSE-AI) in Dankook University.

- Professor : Kwanghee Lee
- Assistant : Nakyeong Kim (Email : [nkkim@dankook.ac.kr](mailto:nkkim@dankook.ac.kr))

Local Codespaces

Clone

HTTPS SSH GitHub CLI

[https://github.com/DKU-EmbeddedSystem-Lab/2025\\_](https://github.com/DKU-EmbeddedSystem-Lab/2025_)

Clone using the web URL.

Open with GitHub Desktop

Download ZIP



# GitHub – How to use GitHub? (12/20)

- git clone

```
~/Lecture/git
root# ls
repo_dir
~/Lecture/git
root# git clone https://github.com/DKU-EmbeddedSystem-Lab/2025_DKU_OpenSourceBasic.git
Cloning into '2025_DKU_OpenSourceBasic'...
remote: Enumerating objects: 16, done.
remote: Counting objects: 100% (16/16), done.
remote: Compressing objects: 100% (12/12), done.
remote: Total 16 (delta 2), reused 3 (delta 1), pack-reused 0 (from 0)
Receiving objects: 100% (16/16), 6.30 KiB | 6.30 MiB/s, done.
Resolving deltas: 100% (2/2), done.
~/Lecture/git
root# ls
2025_DKU_OpenSourceBasic  repo_dir
~/Lecture/git
root# cd 2025_DKU_OpenSourceBasic/
~/Lecture/git/2025_DKU_OpenSourceBasic
root# ls
index.html  README.md
```

# GitHub – How to use GitHub? (13/20)

- git merge

```
~/Lecture/git/repo_dir
root# ls
new_file README test_file
~/Lecture/git/repo_dir
root# git merge testing
Auto-merging test_file
CONFLICT (content): Merge conflict in test_file
Automatic merge failed; fix conflicts and then commit the result.
```

```
test_file ●
5 <<<<<< HEAD
4 Master branch!
3 =====
2 Testing branch!
1 >>>>>> testing
```



```
test_file ●
3 Master branch!
```

```
~/Lecture/git/repo_dir
root# git add test_file
~/Lecture/git/repo_dir
root# git commit
[master 953c851] Merge branch 'testing'
```

# GitHub – How to use GitHub? (14/20)

- Pull requests

The screenshot shows the GitHub interface for a repository named 'hello\_github' by user 'kwanghee0124'. The 'Pull requests' tab is highlighted with a red box in the top navigation bar. The repository page displays the following information:

- Repository Name:** hello\_github (Private)
- Branches:** master (1 Branch), 0 Tags
- Files:** A list of files including README, github\_add\_file, new\_file, and test\_file. The 'github\_add\_file' and 'new\_file' entries show they were added '1 hour ago'.
- Commits:** 8 Commits (1482cba · 1 hour ago)
- README:** The content of the README file is visible, showing 'TEST' and 'Add TEST2'.
- Right Sidebar:** Contains sections for 'About' (No description, website, or topics provided), 'Releases' (No releases published, [Create a new release](#)), and 'Packages' (No packages published, [Publish your first package](#)).

# GitHub – How to use GitHub? (15/20)

- Pull requests

```
~/Lecture/git/repo_dir
root# git branch
* main
  testing

~/Lecture/git/repo_dir
root# git branch pull_req
~/Lecture/git/repo_dir
root# git switch pull_req
Switched to branch 'pull_req'
~/Lecture/git/repo_dir
root# git branch
  main
* pull_req
  testing
```

```
~/Lecture/git/repo_dir
root# echo "pull request" > new_file
~/Lecture/git/repo_dir
root# ls
new_file  README  test_file
~/Lecture/git/repo_dir
root# cat new_file
pull request
~/Lecture/git/repo_dir
root# git add new_file
~/Lecture/git/repo_dir
root# git commit -m "new_file"
[pull_req 877a4d8] new_file
 1 file changed, 1 insertion(+)
~/Lecture/git/repo_dir
root# git push origin pull_req
Enumerating objects: 26, done.
Counting objects: 100% (25/25), done.
Delta compression using up to 12 threads
Compressing objects: 100% (16/16), done.
Writing objects: 100% (21/21), 1.93 KiB | 1.93 MiB/s, done.
Total 21 (delta 5), reused 0 (delta 0), pack-reused 0
remote: Resolving deltas: 100% (5/5), completed with 1 local object.
remote:
remote: Create a pull request for 'pull_req' on GitHub by visiting:
remote:      https://github.com/kwanghee0124/hello_github/pull/new/pull_req
remote:
To https://github.com/kwanghee0124/hello_github.git
 * [new branch]      pull_req -> pull_req
```

# GitHub – How to use GitHub? (16/20)

- Pull requests

kwanghee0124 / hello\_github

Code Issues Pull requests Actions Projects Security Insights Settings

hello\_github Private

Unwatch 1 Fork 0 Star 0

**pull\_req** had recent pushes 8 seconds ago [Compare & pull request](#)

master 1 Branch 0 Tags

Go to file Add file Code

kwanghee0124	Create github_add_file	1482cba · 1 hour ago	8 Commits
README	master	last week	
github_add_file	Create github_add_file	1 hour ago	
new_file	master	last week	
test_file	master	last week	

README

TEST  
Add TEST2

About

No description, website, or topics provided.

Readme Activity 0 stars 1 watching 0 forks

Releases

No releases published  
[Create a new release](#)

Packages

No packages published  
[Publish your first package](#)

# GitHub – How to use GitHub? (17/20)

- Pull requests

The screenshot shows the GitHub interface for opening a pull request. At the top, the repository 'hello\_github' is selected. Below the navigation bar, the 'Open a pull request' section is active. A red box highlights the 'base: master' and 'compare: pull\_req' dropdowns, which show a green checkmark and the text 'Able to merge. These branches can be automatically merged.' Below this, the 'Add a title' section has a 'Pull req' placeholder. The 'Add a description' section has a text area with the placeholder 'Add your description here...'. To the right of the description area, there are sections for 'Reviewers', 'Assignees', 'Labels', 'Projects', and 'Milestone', each with a gear icon for settings. At the bottom right, there is a green 'Create pull request' button. A footer note states: 'Remember, contributions to this repository should follow our GitHub Community Guidelines.'

The screenshot shows the commit history for the 'testing' branch. The table lists commits with their titles, authors, and commit hashes. The commits are ordered chronologically, with the most recent at the top. The table is filtered to show only commits on the 'testing' branch. The commit history shows a series of commits, including 'testing', 'Modify test\_file', 'clean repo', 'merge', 'test', 'v1', 'v', 'Merge branch 'testing'', and 'new\_file'. The commit hashes are displayed next to each commit title. The table is filtered to show only commits on the 'testing' branch. The commit history shows a series of commits, including 'testing', 'Modify test\_file', 'clean repo', 'merge', 'test', 'v1', 'v', 'Merge branch 'testing'', and 'new\_file'. The commit hashes are displayed next to each commit title.

Commit Hash	Commit Title	Author	Time Ago
d9e8830	testing	khlee	committed last week
9861e6c	Modify test_file	khlee	committed 1 hour ago
a0ff91c	Modify test_file	khlee	committed 1 hour ago
cd03770	clean repo	khlee	committed 1 hour ago
3183b4e	merge	khlee	committed 1 hour ago
10aaba3	test	khlee	committed 52 minutes ago
564779e	v1	khlee	committed 50 minutes ago
64c35c6	v	khlee	committed 47 minutes ago
953c851	Merge branch 'testing'	khlee	committed 46 minutes ago
877a408	new_file	khlee	committed 5 minutes ago

# GitHub – How to use GitHub? (18/20)

- Pull requests

## Pull req #1

 Open kwanghee0124 wants to merge 10 commits into `master` from `pull_req` 

 Conversation 0  Commits 10  Checks 0  Files changed 3




kwanghee0124 commented now

...

No description provided.



 khlee added 10 commits [last week](#)

	testing	d9b8830
	Modify test_file	9861e6c
	Modify test_file	a0ff91c
	clean repo	cd03770
	merge	3183b4e
	test	10aaba3
	v1	564775e
	v	64c35c6
	Merge branch 'testing'	953c851
	new_file	877a4d8



# GitHub – How to use GitHub? (19/20)

- .gitconfig

- git token: ghp\_VzG0GvQ

```
~/Lecture/git/repo_dir
root# git config --global credential.helper cache
~/Lecture/git/repo_dir
root# git config --global credential.helper store
```

15분

```
[user]
    name = opensource
    email = sslab@dankook.ac.kr
[credential]
    helper = store
```



# GitHub – branch name (20/20)

---

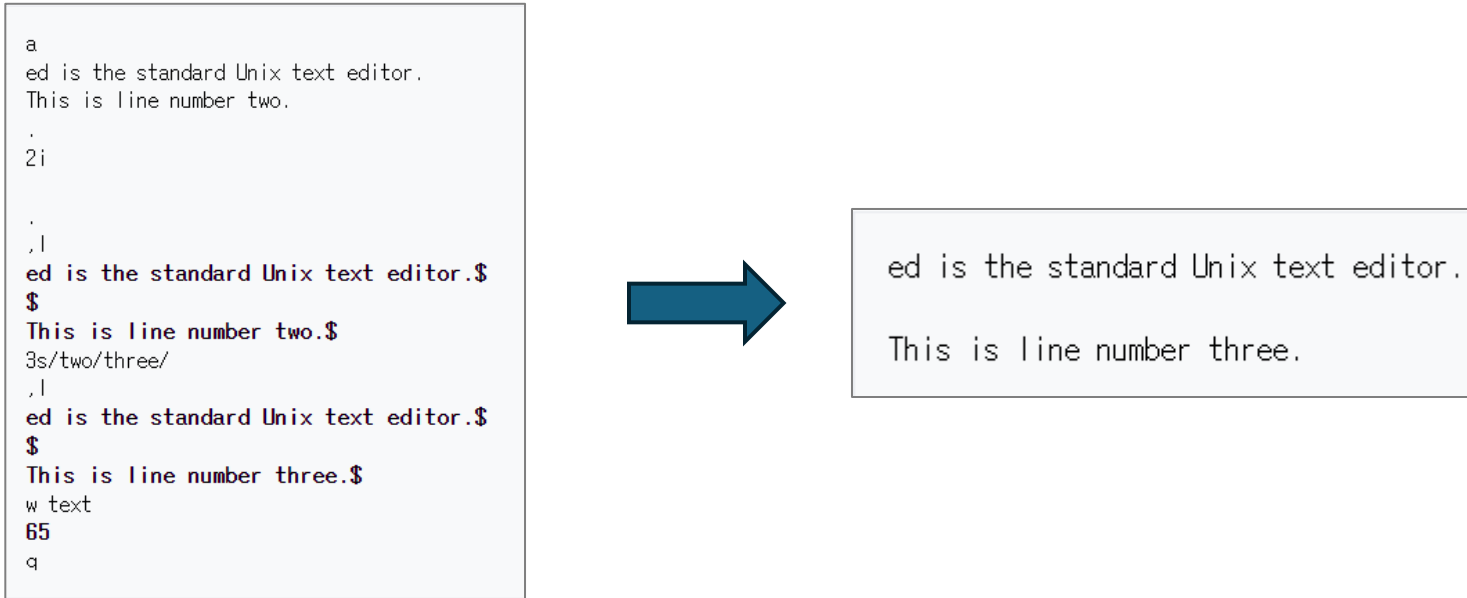
- **git master branch → main branch**
  - git branch -m/M [current name] [new name]
  - git branch -m/M [new name]

```
~/Lecture/git/repo_dir
root# git branch
* master
  testing
~/Lecture/git/repo_dir
root# git branch -m main
~/Lecture/git/repo_dir
root# git branch
* main
  testing
```

# What is vim? (1/4)

- Editor

- ed: line editor for the Unix OS from Aug. 1969



- Vi(Visual) editor
  - BSD, C shell, Vi by Bill Joy
  - Developed “vi” by adding the “ed” plugin
  - Not opensource => Opensource project

# What is vim? (2/4)



- Editor

- Vim: **Vi** + **IM**proved

- Initial name: Vi + imitation
    - By Bram Moolenaar from 1991
    - Since vim is aliased (shortcut, link, connection) to vi, even if you type vi, it connects to vim.

- Linux and Unix command: vimtutor
  - New project: Neovim



```
VIM - Vi IMproved
        version 8.2.2637
        by Bram Moolenaar et al.
    Modified by <bugzilla@redhat.com>
Vim is open source and freely distributable

  Become a registered Vim user!
type  :help register<Enter>  for information

type  :q<Enter>              to exit
type  :help<Enter> or <F1>   for on-line help
type  :help version8<Enter> for version info

                                0,0-1      All
```

```
=====
=  Welcome to the VIM Tutor - Version 1.7  =
=====

Vim is a very powerful editor that has many commands, too many to
explain in a tutor such as this.  This tutor is designed to describe
enough of the commands that you will be able to easily use Vim as
an all-purpose editor.

The approximate time required to complete the tutor is 30 minutes,
depending upon how much time is spent with experimentation.

ATTENTION:
The commands in the lessons will modify the text.  Make a copy of this
file to practice on (if you started "vimtutor" this is already a copy).

It is important to remember that this tutor is set up to teach by
use.  That means that you need to execute the commands to learn them
properly.  If you only read the text, you will forget the commands!

Now, make sure that your Caps-Lock key is NOT depressed and press
the  j  key enough times to move the cursor so that lesson 1.1
completely fills the screen.

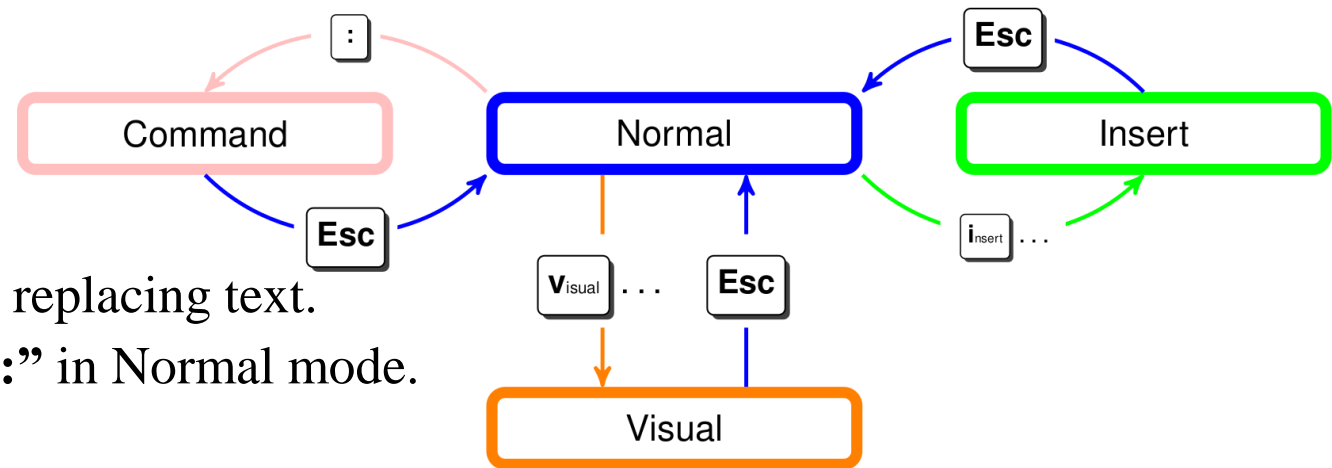
~~~~~
Lesson 1.1:  MOVING THE CURSOR
```

# What is vim? (3/4)

- **Vim: mode**

- Normal mode

- Default mode, The first mode entered when running vim
    - Does not edit text, instead performs a command
      - h, j, k, l(cursor), dd(current line delete), yy(current line copy), p(paste)
    - Enter normal mode through **ESC**



- Command mode

- Mode for saving, quitting, searching, and replacing text.
    - Command-line mode entered by typing ":" in Normal mode.
    - Command
      - :w(save the file), :q(quit vim), :wq(save and quit), :q!(quit without saving)

# What is vim? (4/4)

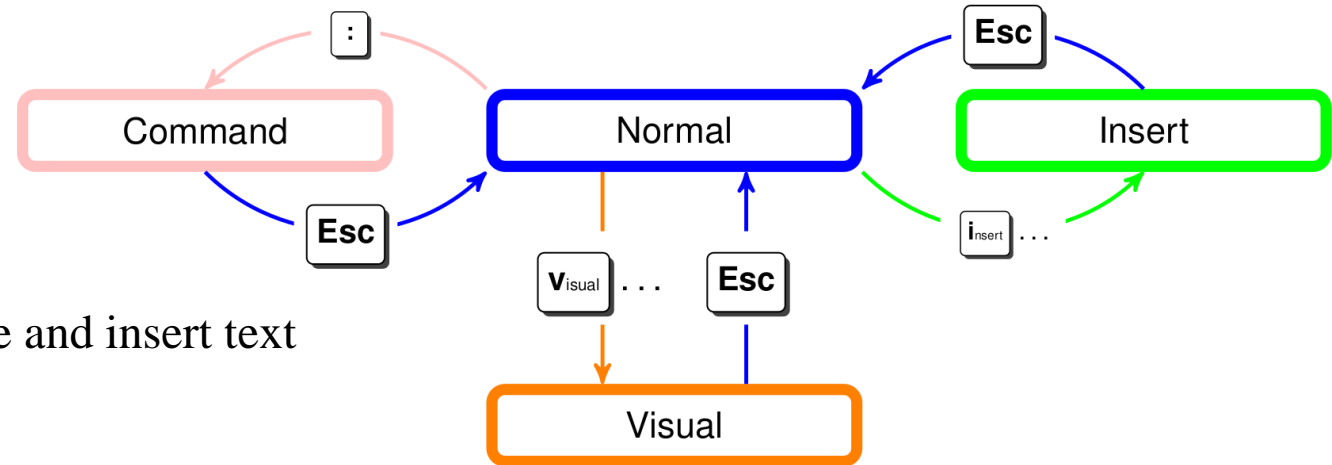
- **Vim: mode**

- Insert mode

- Mode in which text can be edited
    - **Enter input mode**
      - i: Insert text before the cursor
      - a: Insert text after the cursor
      - o: Open a new line below the current line and insert text

- Visual mode

- Mode for selecting text blocks and executing commands.
    - Entered by typing “v” in Normal mode.
    - Type of Visual mode
      - v(select by character), V(select by line), Ctrl+v(select by block)



# How to use vim in Linux? (1/2)

- Vim

- install

```
~/Lecture/git/repo_dir  
root# sudo apt install vim
```

- open

- vim [file name]

```
~/Lecture/git/repo_dir  
root# vim
```

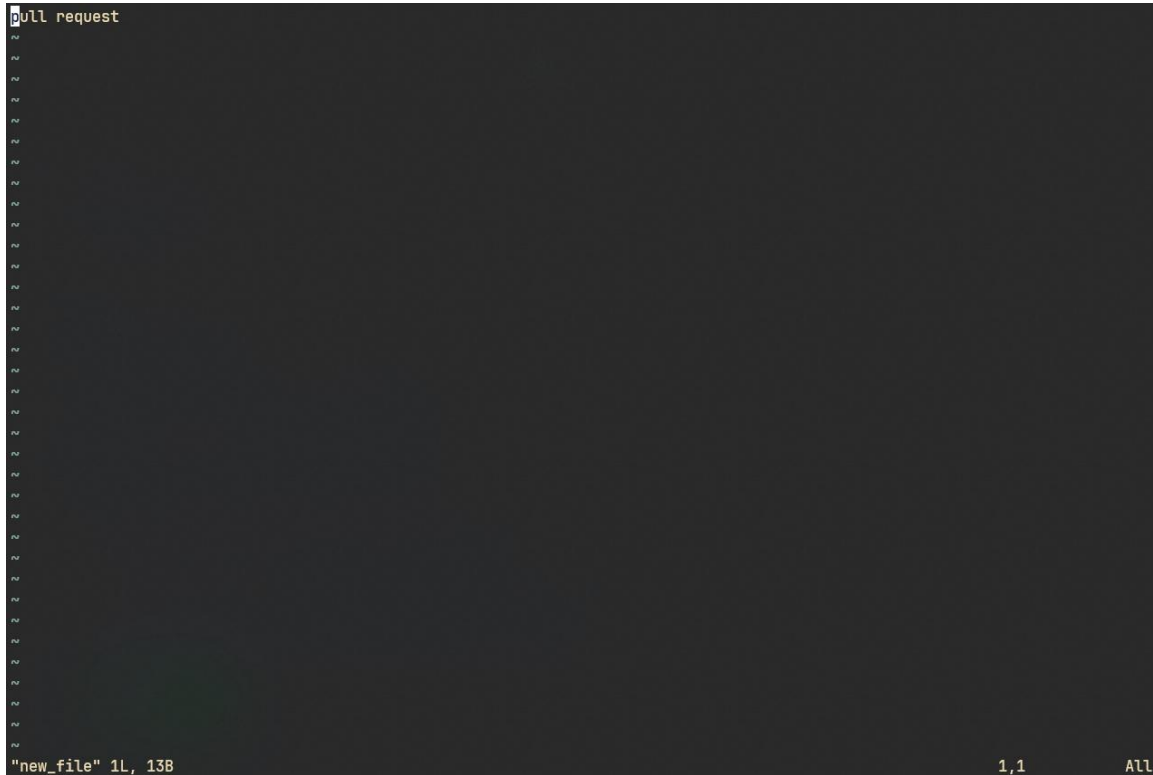


```
VIM - Vi IMproved  
  
version 8.2.2121  
by Bram Moolenaar et al.  
Modified by team+vim@tracker.debian.org  
Vim is open source and freely distributable  
  
Help poor children in Uganda!  
type :help iccf<Enter>      for information  
  
type :q<Enter>              to exit  
type :help<Enter> or <F1>   for on-line help  
type :help version8<Enter> for version info
```

# How to use vim in Linux? (2/2)

## • Vim

```
~/Lecture/git/repo_dir
root# ls
new_file  README  test_file
~/Lecture/git/repo_dir
root# vim new_file
```



version 1.1  
April 1st, 06

### vi / vim 단축키 모음

Esc 명령 모드	~ 대소문자 전환	! 외부 명령	@ 매크로 실행	# 이전 검색	\$ 줄 끝으로 이동	% 일치하는 줄로 찾기	^ 줄의 첫 글자	& :s 반복	* 다음 검색	( 문장 시작	) 문장 끝	_ 아래줄로 이동	+ 다음 줄
1 매크로 이동	2	3	4	5	6	7	8	9	0 줄의 처음	- 이전 줄	= 자동 들여쓰기		
Q 실행 모드	W 다음 WORD	E WORD 끝	R 수정 모드	T 뒤로 검색	Y 줄단위 복사	U 줄단위 실행 취소	I 줄 시작에서 삽입	O 행 위에 삽입	P 커서 이전에 붙여넣기	{ 문단 시작	}		
q 매크로 기록	w 다음 단어	e 단어 끝	r 한 문자 교체	t 한 문자 검색	y 복사	u 실행 취소	i 편집 모드	o 행 아래에 삽입	p 커서 이후에 붙여넣기	[ 기타	]		
A 줄 끝에 덧붙이기	S 줄 삭제후 편집모드	D 줄 끝까지 삭제	F 뒤로 검색	G 파일 끝으로 이동	H 화면 상단	J 줄 합치기	K 다음 줄	L 화면 하단	: ex 명령줄	" 레지스터 지정	.		
a 덧붙이기	s 단어 삭제후 편집모드	d 삭제	f 한 문자 찾기	g 명령	h ←	j ↓	k ↑	l →	: t/T/F 명령 반복	' 레지스터 이동	\ 사용 연람		
Z 종료	X 백스페이스	C 줄 끝까지 바꾸기	V 줄단위 비주얼모드	B 이전 WORD	N 이전 (찾기)	M 화면 가운데	< 3 내어쓰기	> 3 들여쓰기	? 찾기 (뒤로)				
Z 확장 명령	x 글자 삭제	c 바꾸기	v 비주얼 모드	b 이전 단어	n 다음 (찾기)	m 마크 설정	<T/F/ 3 역순 검색	.	/ 찾기				

**동작** 커서를 이동하거나, 연산자가 동작할 범위를 지정합니다.

**명령** 바로 동작하는 명령, 빨간색은 편집 모드로 변경됩니다.

**연산자** 이동 관련 문자(숫자나 커서 이동)와 함께 사용하여 하며, 커서의 위치부터 목적지까지 연산합니다.

**확장** 특별한 키 함수로, 추가적인 키 입력이 필요합니다.

**q** 입력후 (숫자를 제외한)으로 끝낼수 있는) 글자를 입력하여야 합니다.

**words:** 구분자로 공백, 특수기호 모두 사용  
**WORDS:** 구분자로 공백 문자만 사용

**words:** quux(foo, bar, baz);  
**WORDS:** quux(foo, bar, baz);

**주요 명령행 명령 ('ex'):**  
:w (저장), :q (종료), :q! (저장하지 않고 종료)  
:e f (파일 f 열기), :%s/x/y/g (파일 전체에서 'x' 를 'y' 로 교체), :h (vim 도움말), :new (새 파일)

**그외 중요한 명령들:**  
CTRL-F: 재실행 (vim), CTRL-F/B: 페이지 위로/아래로, CTRL-E/Y: 줄 스크롤 위로/아래로, CTRL-V: 블록-비주얼 모드 (vim 전용)

**비주얼 모드:**  
커서를 움직여 지정한 범위에 연산자를 적용합니다. (vim 전용)

**참고:**  
(1) 복사/붙여넣기/자꾸가 명령어를 사용하기 전에 "x"를 입력하여 레지스터(클립보드)를 지정하세요. (x는 a에서 z 또는 \* 을 사용할 수 있음) (예: "ay\$를 입력하면 현재 커서에서 라인 끝까지의 내용을 레지스터 'a'에 저장합니다.)  
(2) 어떤 명령을 입력하기 전에 횡수를 지정하면, 횡수만큼 반복하게 됩니다.(예: 2p, d2w, 5i, d4j)  
(3) 연속으로 입력하는 명령은 현재의 라인에 반영됩니다. 예시: dd(현재 라인 지우기), >>(들여쓰기)  
(4) ZZ는 저장후 종료, ZQ는 저장하지 않고 종료.  
(5) zt: 커서가 위치한 곳을 제일위로 옮리기, zb: 바닥으로, zz: 가운데로  
(6) gg: 파일의 처음으로(Vim 전용), gf: 커서가 위치한 곳의 파일 열기(Vim 전용)

vi/vim 에 대한 더 많은 강좌나 팁을 얻으려면 [www.viemu.com](http://www.viemu.com) (ViEmu, MS 비주얼 스튜디오를 위한 vi/vim 에뮬레이션)을 방문하십시오.

# Practice

- **Follow the scenario**
  - Clone repository
  - Create and switch branch
  - Update file and commit
  - Merge 'test' branch and resolve conflicts
  - Make Pull Request

## Welcome to My GitHub Page

This page is part of my GitHub practice project.

My name is Kwanghee Lee and user number is 72240257.

### My Pages

[About Me](#)

[My Skills](#)

[My Projects](#)

[Contact Me](#)

### What I Practiced

☒ Cloned this repository to local machine

☒ Created and switched between branches

☒ Made commits for different sections

☒ Merged branches using pull requests

☒ Resolved merge conflicts (if any)

☒ Pushed changes to GitHub

☒ Used GitHub Pages to publish this site



# Practice

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## 1. Clone Repository

- [https://github.com/DKU-EmbeddedSystem-Lab/2025\\_DKU\\_OpenSourceBasic](https://github.com/DKU-EmbeddedSystem-Lab/2025_DKU_OpenSourceBasic)
- Start from `main` branch

## 2. Create and Switch Branch

- Name branch by user number (e.g., 72240257)
- Work from a non-main branch

## 3. Update File and Commit

- Modify index.html
- Write meaningful commit messages



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My Pages

change this things

# Practice

## 4. Merge 'test' Branch and Resolve Conflicts

- Try to merge 'test' branch from your own branch
  - If you try to merge from 'test', it will be restricted
- Occur conflicts on purpose
- Keep commit log for conflicts (just for resolving: empty diff)
- Push changes to remote repository (on your own branch)

feat: update index.html ...



neokkk committed 2 minutes ago

fix: resolve conflicts ...



neokkk committed 2 minutes ago

## 5. Make Pull Request

- Compare changes across branch: main ↔ own
- Set PR title to '[<user\_number>] Update index.html'

# Appendix

- HTML viewer
  - <https://html.onlineviewer.net>

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8" />
5   <meta name="viewport" content="width=device-width, initial-scale=1.0"/>
6   <title>My Personal GitHub Page</title>
7   <style>
8     body {
9       font-family: Arial, sans-serif;
10      padding: 2rem;
11      background-color: #f4f4f4;
12    }
13    h1, h2 {
14      color: #333;
15    }
16    ul {
17      list-style: none;
18      padding-left: 0;
19    }
20    li {
21      background: #fff;
22      margin-bottom: 0.5rem;
23      padding: 1rem;
24      border-radius: 6px;
25      box-shadow: 0 2px 4px rgba(0, 0, 0, 0.1);
26    }
27    p {
28      margin: 0.5rem;
29    }
30    a {
31      text-decoration: none;
32      color: #007acc;
33      font-weight: bold;
34    }
35  </style>
36 </head>
37 <body>
38   <h1>👤 Welcome to My GitHub Page</h1>
39   <p>This page is part of my GitHub practice project.</p>
40   <p>My name is Kwanghee Lee and user number is 72240257.</p>
41
42   <h2>📄 My Pages</h2>
43   <ul>
44     <li><a href="about.html">About Me</a></li>
45     <li><a href="skills.html">My Skills</a></li>
46     <li><a href="projects.html">My Projects</a></li>
47     <li><a href="contact.html">Contact Me</a></li>
48   </ul>
49
50   <h2>📝 What I Practiced</h2>
51   <ul>
52     <li>✅ Cloned this repository to local machine</li>
53     <li>✅ Created and switched between branches</li>
54     <li>✅ Made commits for different sections</li>
55     <li>✅ Merged branches using pull requests</li>
56     <li>✅ Resolved merge conflicts (if any)</li>
57     <li>✅ Pushed changes to GitHub</li>
58     <li>✅ Used GitHub Pages to publish this site</li>
59   </ul>
60 </body>
61 </html>
```

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### 📄 My Pages

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### 📝 What I Practiced

✅ Cloned this repository to local machine

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# Summary

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- **Local Repository and Remote Repository**
- **GitHub**
  - What is github?
  - How to use github?
- **Vim**
  - What is Vim?
  - How to use vim in Linux?

# Assignment 3

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## 1. Practice

- 제출 요건

- Include student ID and date (using whoami, date)
- 기한: 일주일
- 양식: 포맷 없음, 장수 제한 없음, pdf (파일명: 오픈소스SW기초\_{분반}\_{이름}\_{학번}.pdf)
- 제출: e-Campus => 과제

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- 본 결과물의 내용을 전재할 수 없으며, 인용(재사용)할 때에는 반드시 과학기술정보통신부와 정보통신기획평가원이 지원한 'SW중심대학'의 결과물이라는 출처를 밝혀야 합니다.



과학기술정보통신부 정보통신기획평가원

SW중심대학