

ACTIVITY PRAKTIKUM

Mata Praktikum : Rekayasa Perangkat Lunak 2
Kelas : 4IA14
Praktikum ke- : 7
Tanggal : 25 November 2024
Materi : Dokumentasi Pengembangan Perangkat Lunak Terpadu, Version Control System, Git, Github

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Ketua Asisten : Suryo Adji Widagdo
Paraf Asisten :
Nama Asisten :
Jumlah Lembar : Lembar

1. Jelaskan apa itu git dan bagaimana git dapat membantu kerja sama tim
2. Lakukan operasi-operasi yang dapat dilakukan pada github seperti membuat repository, clone repository, git push dan git pull

Jawaban:

1. Git adalah salah satu sistem pengontrol versi (Version Control System) pada proyek perangkat lunak yang diciptakan oleh Linus Torvalds.

Pengontrol versi bertugas mencatat setiap perubahan pada file proyek yang dikerjakan oleh banyak orang maupun sendiri.

Git dikenal juga dengan distributed revision control (VCS terdistribusi), artinya penyimpanan database Git tidak hanya berada dalam satu tempat saja.

Git dapat membantu kerja sama tim seperti dibawah:

- Setiap anggota tim dapat menyimpan salinan lengkap proyek di komputer mereka dan membuat perubahan tanpa memengaruhi proyek utama sampai siap untuk digabungkan.
- Git memungkinkan banyak orang untuk bekerja bersama-sama dalam proyek yang sama dengan mempermudah kolaborasi melalui repositori pusat (misalnya GitHub), di mana tim dapat berbagi, mengelola, dan mengomentari perubahan.
- Git menyimpan riwayat perubahan sehingga tim dapat melacak perubahan yang telah dilakukan, serta memulihkan versi sebelumnya jika ada masalah.

2. Buat repository baru di github

Create a new repository

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

Required fields are marked with an asterisk (*).

Owner * EvanSihotang / Repository name * Pertemuan7_50421425
✔ Pertemuan7_50421425 is available.

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

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.](#)

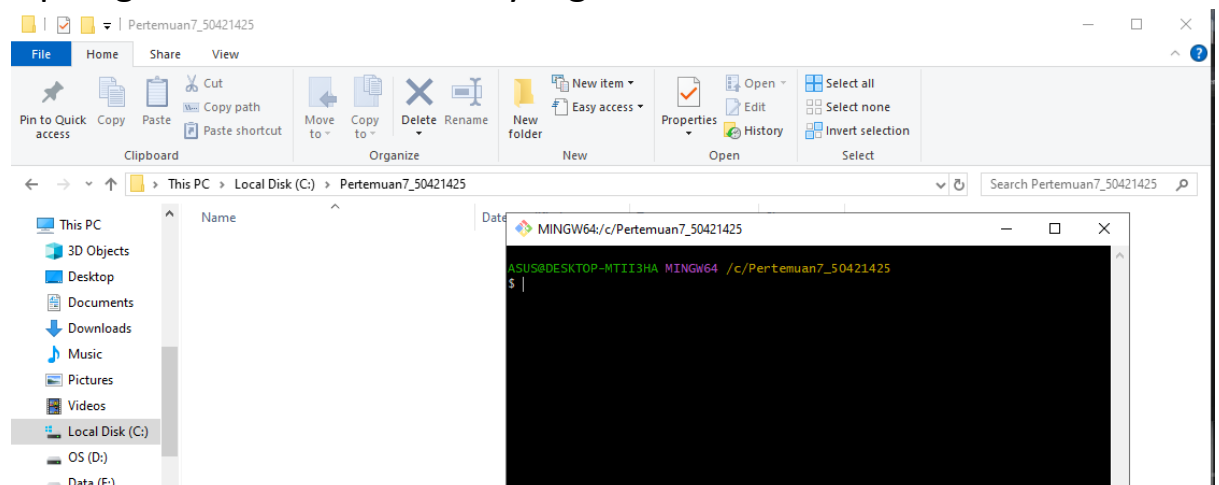
Choose a license

License: None

A license tells others what they can and can't do with your code. [Learn more about licenses.](#)

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

Open git bash di folder baru yang telah dibuat



Pertemuan7_50421425

Share View

Paste Cut Copy path Paste shortcut Move to Copy to Delete Rename New folder New item Easy access Properties Open Select all Select none Invert selection

lipboard Organize New Open Select

> This PC > Local Disk (C:) > Pertemuan7_50421425

| Name | Date modified | Type | Size |
|--------|------------------|--------------------|------|
| README | 25/11/2024 14:17 | Markdown Source... | 1 KB |

C:) MINGW64:/c/Pertemuan7_50421425

```
ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425
$ echo # Pertemuan7_50421425 >> README.md

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425
$ echo "# Pertemuan7_50421425" >> README.md

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425
$
```

muan7_50421425

Share View

Copy path Paste shortcut Move to Copy to Delete Rename New folder New item Easy access Properties Open Select all Select none Invert selection

ard Organize New Open Select

> This PC > Local Disk (C:) > Pertemuan7_50421425

| Name | Date modified | Type | Size |
|--------|------------------|--------------------|------|
| .git | 25/11/2024 14:18 | File folder | |
| README | 25/11/2024 14:17 | Markdown Source... | 1 |

MINGW64:/c/Pertemuan7_50421425

```
ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425
$ echo # Pertemuan7_50421425 >> README.md

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425
$ echo "# Pertemuan7_50421425" >> README.md

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425
$ git init
Initialized empty Git repository in C:/Pertemuan7_50421425/.git/

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (master)
$
```

```

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (master)
$ git status
On branch master

No commits yet

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        README.md

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

```

```

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (master)
$ git add README.md
warning: in the working copy of 'README.md', LF will be replaced by CRLF the next time Git touches it

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   README.md

```

```

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (master)
$ git commit -m "first commit"
[master (root-commit) 3964a70] first commit
1 file changed, 1 insertion(+)
create mode 100644 README.md

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (master)
$ git branch -M main

```

Copy paste link github

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

[Set up in Desktop](#)
or
[HTTPS](#)
[SSH](#)
https://github.com/EvanS1hotang/Pertemuan7_50421425.git

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

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

```

echo "# Pertemuan7_50421425" >> README.md
git init
git add README.md
git commit -m "first commit"
git branch -M main
git remote add origin https://github.com/EvanS1hotang/Pertemuan7_50421425.git
git push -u origin main

```

```

t time Git touches it

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (master)
$ git status
On branch master

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   README.md

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (master)
$ git commit -m "first commit"
[master (root-commit) 3964a70] first commit
1 file changed, 1 insertion(+)
create mode 100644 README.md

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (master)
$ git branch -M main

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (main)
$ git remote add https://github.com/EvanS1hotang/Pertemuan7_50421425.git

```

```

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (main)
$ git push -u origin main
fatal: 'origin' does not appear to be a git repository
fatal: Could not read from remote repository.

Please make sure you have the correct access rights
and the repository exists.

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (main)
$ git remote add origin https://github.com/EvanSihotang/Pertemuan7_50421425.git

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (main)
$ git push -u origin main
info: please complete authentication in your browser...
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Writing objects: 100% (3/3), 241 bytes | 241.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/EvanSihotang/Pertemuan7_50421425.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (main)
$

```

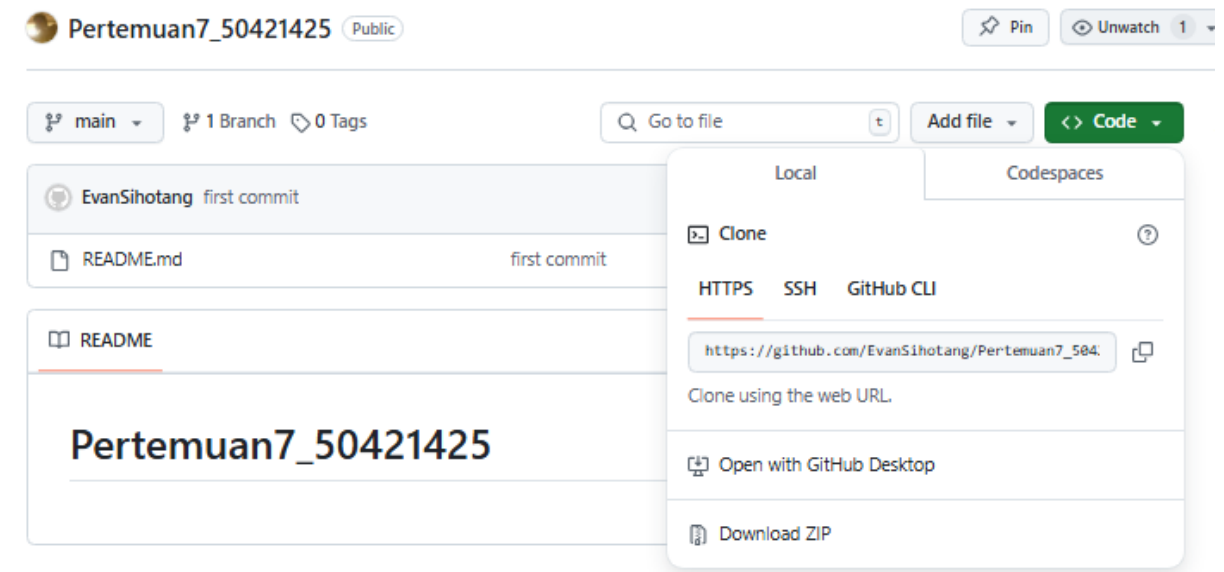
The screenshot shows the GitHub interface for a public repository named 'Pertemuan7_50421425' by user 'EvanSihotang'. The repository has 1 branch (main) and 0 tags. The commit history shows a single commit by EvanSihotang, titled 'first commit', made 5 minutes ago. The repository contains a file named 'README.md'. The README content displays the repository name 'Pertemuan7_50421425'.

Pertemuan7_Clone

: | Pertemuan7_clone

The screenshot shows a Windows File Explorer window with the address bar displaying 'This PC > Local Disk (C:) > Pertemuan7_clone'. The left sidebar shows the 'Name' column. The main pane displays the directory path 'MINGW64:/c/Pertemuan7_clone' and a terminal window. The terminal window shows the command prompt 'ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_clone' with a cursor on the next line.

Tekan Code, copy linknya



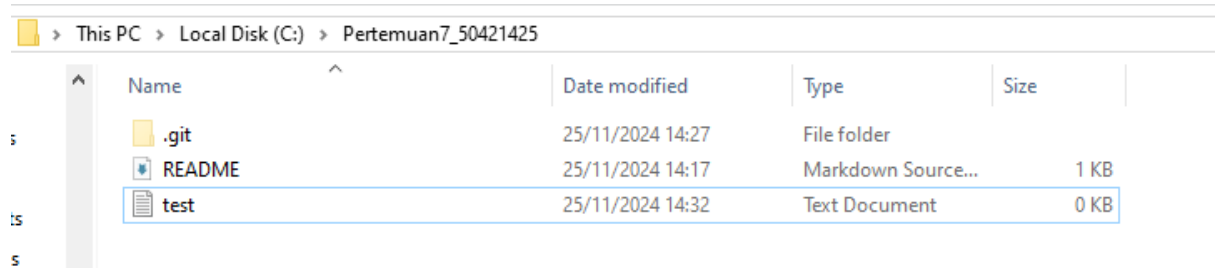
The screenshot shows a GitHub repository page for 'Pertemuan7_50421425'. The repository is public and has one branch, 'main'. A dropdown menu is open under the 'Code' button, showing options to clone the repository using HTTPS, SSH, or GitHub CLI, or to download the ZIP file. The URL for cloning is `https://github.com/EvanSihotang/Pertemuan7_50421425.git`.

Below the repository page, a terminal window is shown with the following commands and output:

```
ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_clone
$ git clone ^[[200~
fatal: repository '?[200~' does not exist

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_clone
$ git clone https://github.com/EvanSihotang/Pertemuan7_50421425.git
Cloning into 'Pertemuan7_50421425'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0 (from 0)
Receiving objects: 100% (3/3), done.
```

Buat text file baru di folder Pertemuan7_50421425



The screenshot shows a Windows File Explorer window displaying the contents of the 'Pertemuan7_50421425' folder. The folder contains three items: a '.git' folder, a 'README' file, and a 'test' file. The 'test' file is highlighted, indicating it has been created.

| Name | Date modified | Type | Size |
|--------|------------------|--------------------|------|
| .git | 25/11/2024 14:27 | File folder | |
| README | 25/11/2024 14:17 | Markdown Source... | 1 KB |
| test | 25/11/2024 14:32 | Text Document | 0 KB |

```
ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

Untracked files:
  (use "git add <file>..." to include in what will be committed)
       test.txt

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

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (main)
$ git add .

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

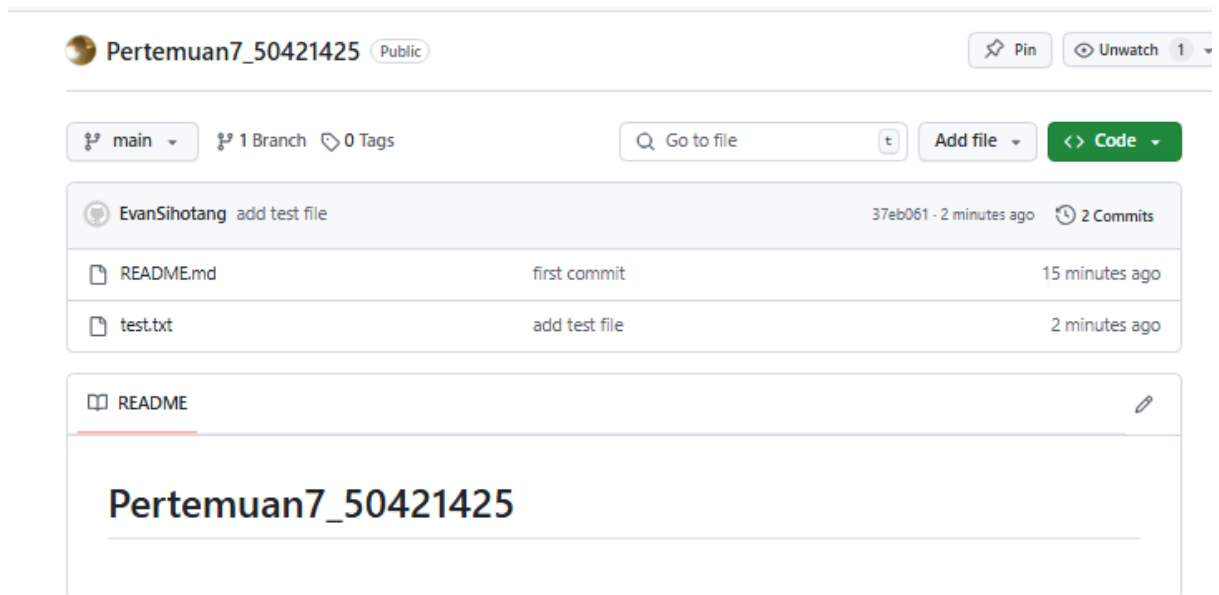
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
       new file:   test.txt
```

```
ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (main)
$ git commit -m "add test file"
[main 37eb061] add test file
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 test.txt

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (main)
$ |
```

```
ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (main)
$ git push -u origin main
Enumerating objects: 4, done.
Counting objects: 100% (4/4), done.
Delta compression using up to 2 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 282 bytes | 282.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
To https://github.com/EvanSihotang/Pertemuan7_50421425.git
   3964a70..37eb061  main -> main
branch 'main' set up to track 'origin/main'.
```

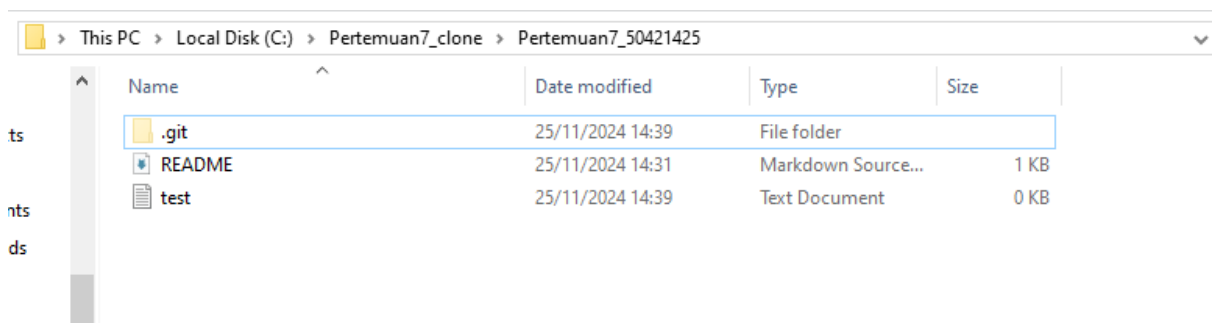
Bertambah 1 file test.txt



```
ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_clone
$ cd Pertemuan7_50421425

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_clone/Pertemuan7_50421425 (main)
$ git pull
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 3 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), 262 bytes | 1024 bytes/s, done.
From https://github.com/EvanSihotang/Pertemuan7_50421425
  3964a70..37eb061  main       -> origin/main
Updating 3964a70..37eb061
Fast-forward
 test.txt | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 test.txt
```

File test sudah ada di folder clone



Buat file txt baru bernama branch

| ↑ > This PC > Local Disk (C:) > Pertemuan7_clone > Pertemuan7_50421425 > | | | | |
|--|--------|------------------|--------------------|------|
| | Name | Date modified | Type | Size |
| icts p ents oads | .git | 25/11/2024 14:39 | File folder | |
| | branch | 25/11/2024 14:41 | Text Document | 0 KB |
| | README | 25/11/2024 14:31 | Markdown Source... | 1 KB |
| | test | 25/11/2024 14:39 | Text Document | 0 KB |

```

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_clone/Pertemuan7_50421425 (main)
$ git status
On branch main
Your branch is up to date with 'origin/main'.

Untracked files:
  (use "git add <file>..." to include in what will be committed)
        branch.txt

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

```

```

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_clone/Pertemuan7_50421425 (main)
$ git branch coba

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_clone/Pertemuan7_50421425 (main)
$ git checkout coba
Switched to branch 'coba'

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_clone/Pertemuan7_50421425 (coba)
$ git status
On branch coba
Untracked files:
  (use "git add <file>..." to include in what will be committed)
        branch.txt

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

```

```


ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_clone/Pertemuan7_50421425 (coba)
$ git add .




ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_clone/Pertemuan7_50421425 (coba)
$ git commit -m "add coba.txt"
[coba fe74036] add coba.txt
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 branch.txt

ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_clone/Pertemuan7_50421425 (coba)
$ git push -u origin coba
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 2 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (2/2), 282 bytes | 11.00 KiB/s, done.
Total 2 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote:
remote: Create a pull request for 'coba' on GitHub by visiting:
remote:   https://github.com/EvanSihotang/Pertemuan7_50421425/pull/new/coba
remote:
To https://github.com/EvanSihotang/Pertemuan7_50421425.git
 * [new branch]      coba -> coba
branch 'coba' set up to track 'origin/coba'


```



Isi dari branch coba




 **coba** had recent pushes 1 minute ago
Compare & pull request


 **coba**
 2 Branches
 0 Tags


+
Add file
Code

This branch is 1 commit ahead of main.
 **Contribute**


 **EvanSihotang** add coba.txt
fe74036 · 2 minutes ago
 3 Commits

| | | |
|--|---------------|----------------|
|  README.md | first commit | 26 minutes ago |
|  branch.txt | add coba.txt | 2 minutes ago |
|  test.txt | add test file | 12 minutes ago |

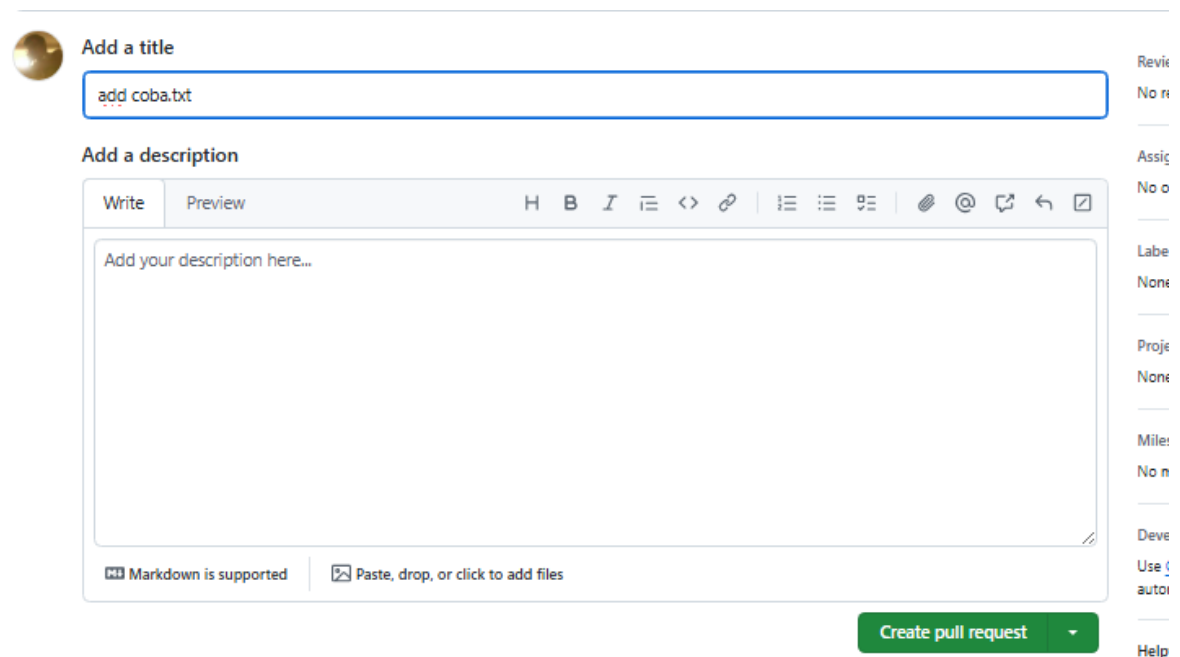
 README



Klik compare dan pull request

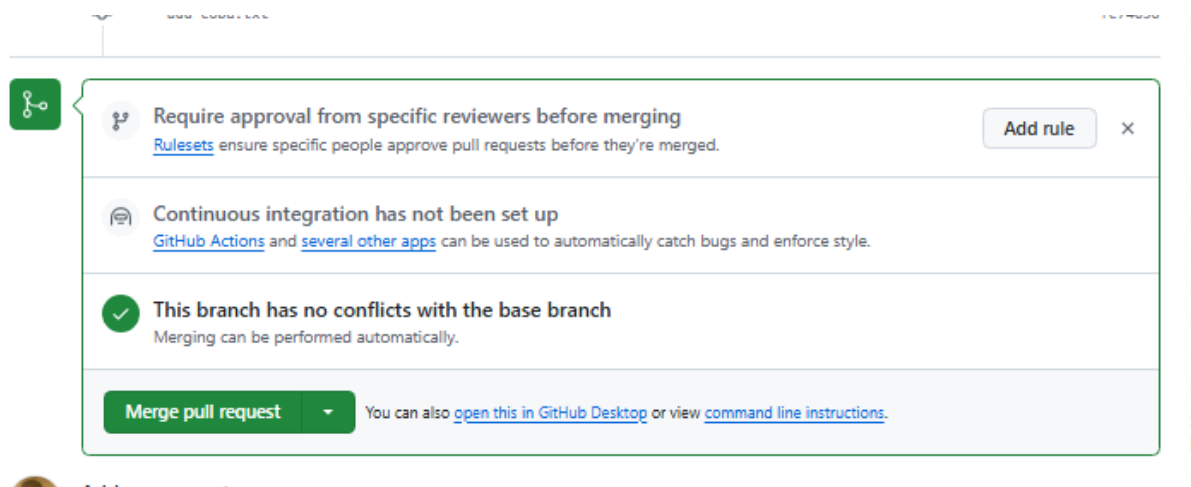
 **coba** had recent pushes 1 minute ago
Compare & pull request

Create pull request



The screenshot shows the GitHub 'Create pull request' interface. At the top, there's a profile picture and a section titled 'Add a title' with a text input field containing 'add coba.txt'. Below this is the 'Add a description' section, which includes a 'Write' tab and a 'Preview' tab. The 'Write' tab is active, showing a rich text editor with a toolbar containing icons for bold, italic, link, and other formatting options. The text area contains the placeholder 'Add your description here...'. At the bottom of the description area, there are two checkboxes: 'Markdown is supported' and 'Paste, drop, or click to add files'. To the right of the description area is a vertical sidebar with various filters like 'Reviewers', 'Assignees', 'Labels', 'Projects', 'Milestones', 'Development', 'Useful', and 'Help'. At the bottom right of the form is a green button labeled 'Create pull request'.

Klik merge request



The screenshot shows the GitHub 'Merge pull request' dialog. It features a green header bar with a GitHub logo and a title 'Merge pull request'. Below the header, there are three sections of information: 1. 'Require approval from specific reviewers before merging' with a link to 'Rulesets' and an 'Add rule' button. 2. 'Continuous integration has not been set up' with a link to 'GitHub Actions' and 'several other apps'. 3. 'This branch has no conflicts with the base branch' with a green checkmark icon and the text 'Merging can be performed automatically.' At the bottom, there is a green button labeled 'Merge pull request' and a link to 'open this in GitHub Desktop' or view 'command line instructions'.

Tampilan Main setelah merge

[illegible]

```
ASUS@DESKTOP-MTII3HA MINGW64 /c/Pertemuan7_50421425 (main)
$ git pull
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 2 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), 1.13 KiB | 39.00 KiB/s, done.
From https://github.com/EvanSihotang/Pertemuan7_50421425
   37eb061..7ef9ca6  main      -> origin/main
   * [new branch]    coba      -> origin/coba
Updating 37eb061..7ef9ca6
Fast-forward
 branch.txt | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 branch.txt
```

Isi folder Pertemuan7_50421425 setelah git pull

