

ACTIVITY PERTEMUAN 7

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MATERI	: Dokumentasi Pengembangan Perangkat Lunak Terpadu, Version Control System, Git, dan Github
MATA PRAKTIKUM	: Rekayasa Perangkat Lunak 2

1. Jelaskan Apa itu Git dan bagaimana git dapat membantu dalam kerja-sama tim.

Jawab:

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. Semua orang yang terlibat dalam pengkodean proyek akan menyimpan database Git, sehingga akan memudahkan dalam mengelola proyek baik online maupun offline.

Bagaimana Git Membantu dalam Kerja Sama Tim?

1. **Pelacakan Perubahan**

Git mencatat semua perubahan yang dilakukan pada file, sehingga tim dapat mengetahui siapa yang mengedit apa, kapan, dan mengapa. Ini sangat membantu dalam mengidentifikasi dan memecahkan masalah.

2. **Kolaborasi Paralel**

Dengan fitur **branching**, anggota tim dapat bekerja pada fitur atau perbaikan yang berbeda secara bersamaan tanpa mengganggu pekerjaan anggota lain. Branch yang selesai dapat digabungkan kembali ke cabang utama menggunakan **merge**.

3. **Manajemen Versi**

Git memungkinkan tim untuk mengelola beberapa versi proyek. Setiap perubahan yang disimpan dalam bentuk **commit** dapat dikembalikan ke versi sebelumnya jika terjadi masalah.

4. **Penyimpanan Terpusat**

Dengan menggunakan layanan seperti GitHub, GitLab, atau Bitbucket, tim memiliki tempat penyimpanan pusat untuk repository yang memudahkan sinkronisasi antar anggota tim.

5. **Penyelesaian Konflik**

Jika dua anggota tim mengedit file yang sama, Git memberikan mekanisme untuk mendeteksi konflik dan membantu menyelesaikannya.

6. **Pengelolaan Riwayat Proyek**

Git memberikan catatan lengkap tentang bagaimana proyek berkembang seiring waktu, yang sangat berguna untuk audit, debugging, atau melacak penyebab bug.

7. **Kerja Offline**

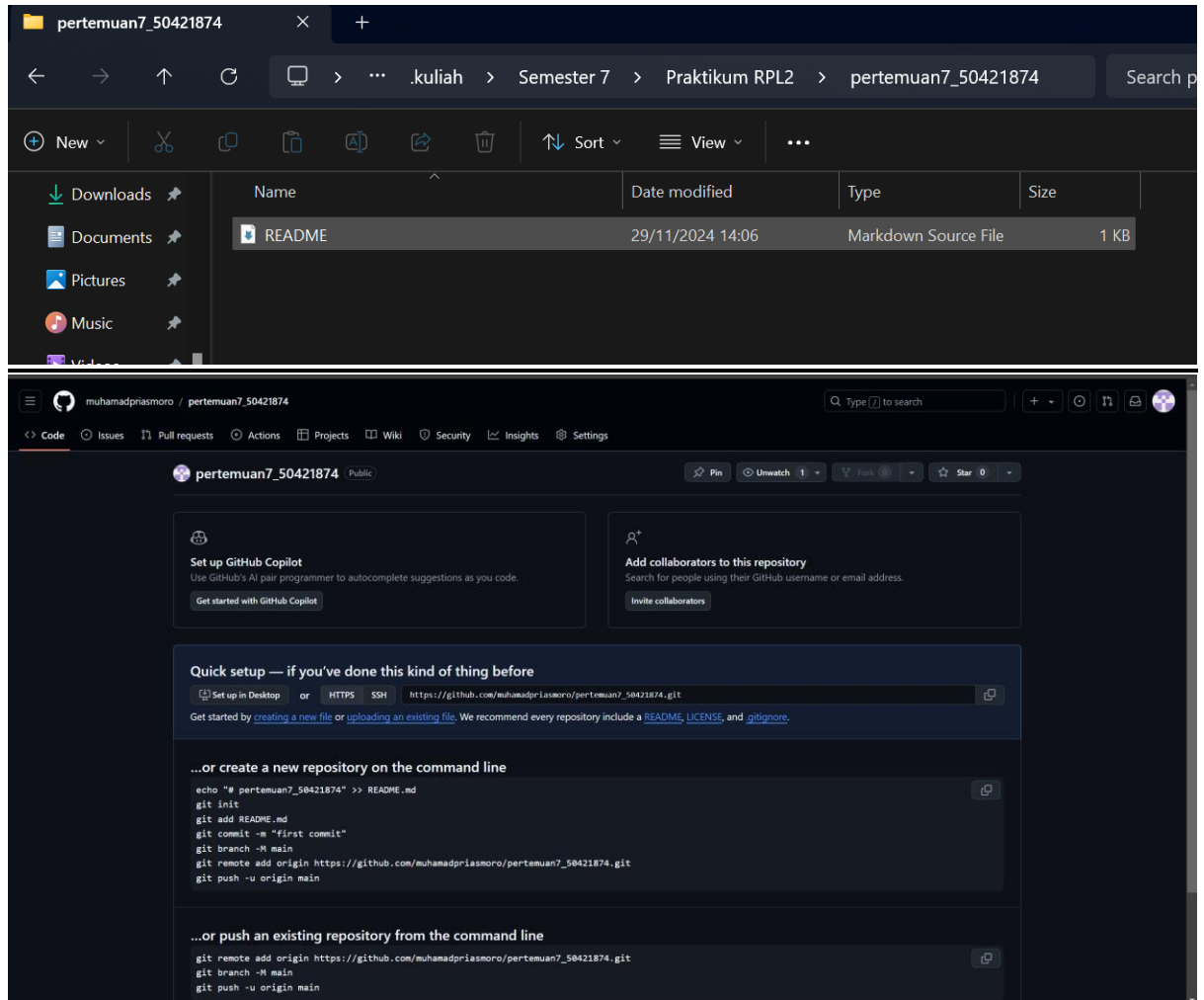
Karena setiap anggota memiliki salinan penuh dari repository, mereka dapat

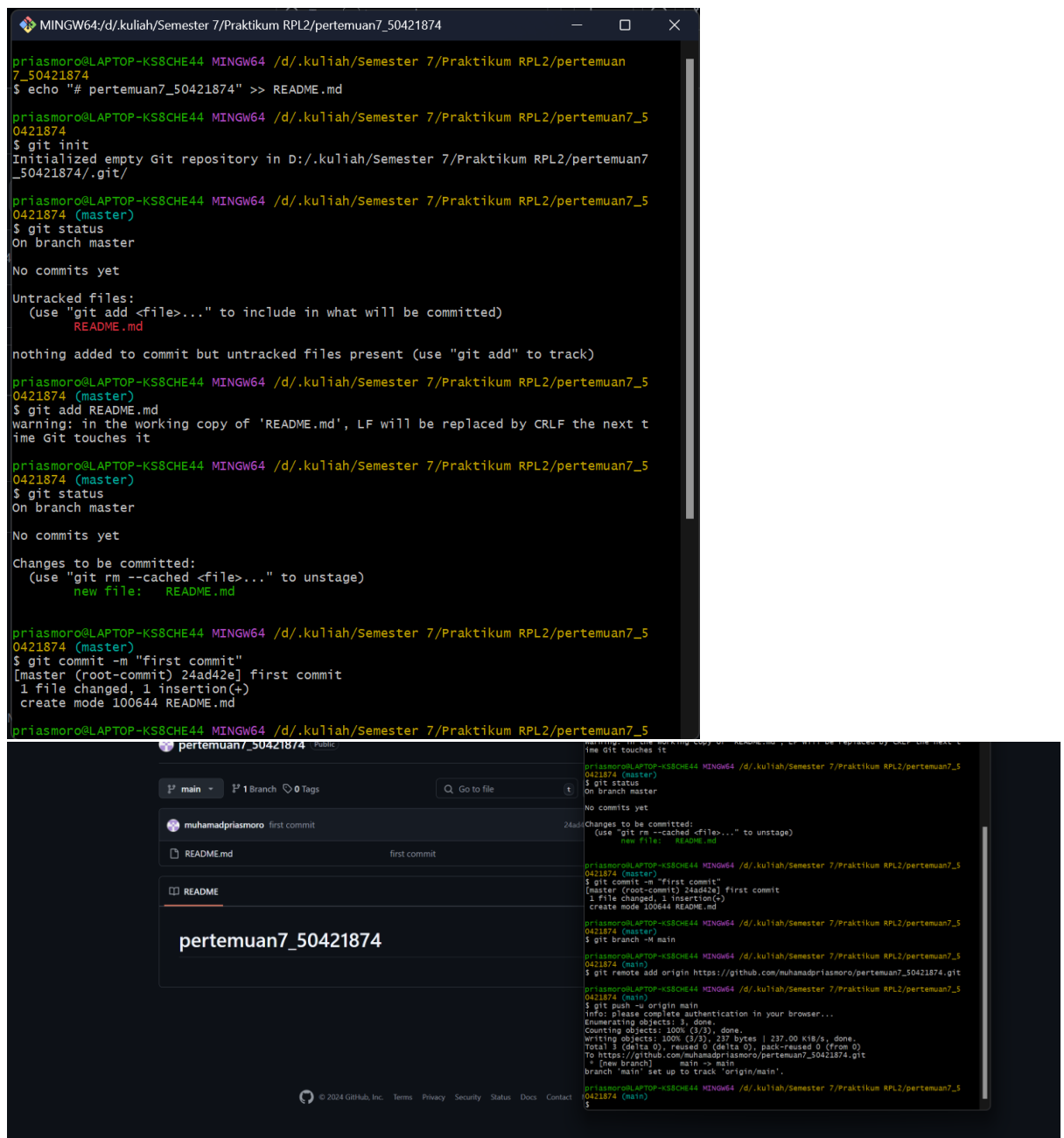
bekerja secara offline dan menyinkronkan pekerjaan mereka saat koneksi internet tersedia.

2. Lakukan operasi-operasi yang dapat dilakukan pada github seperti membuat repository, Clone repository, Git Push dan Git Pull.

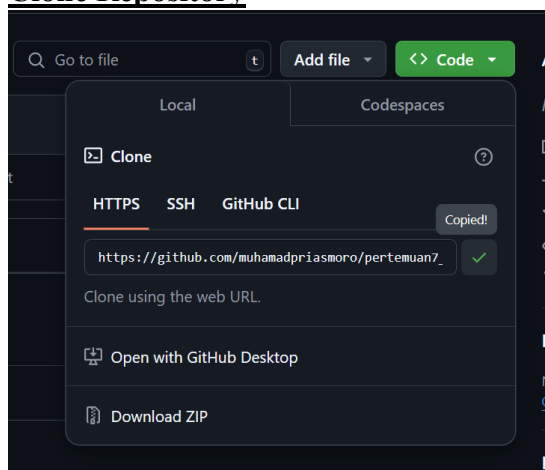
Jawab:

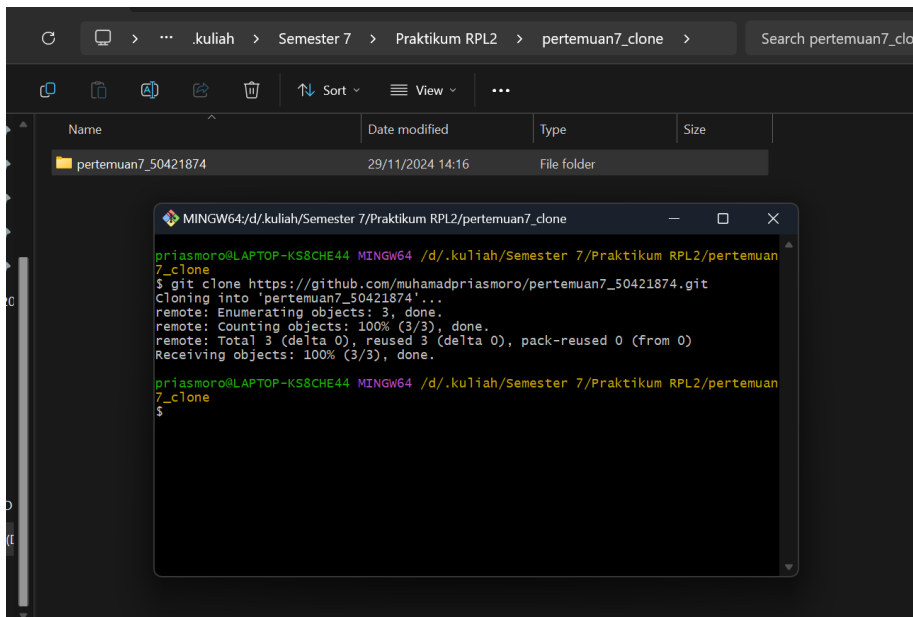
Membuat Repository



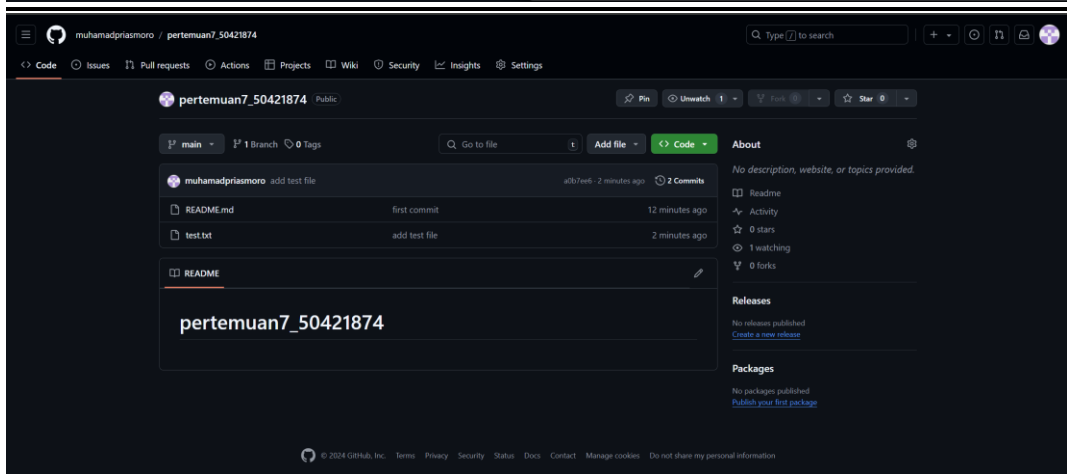
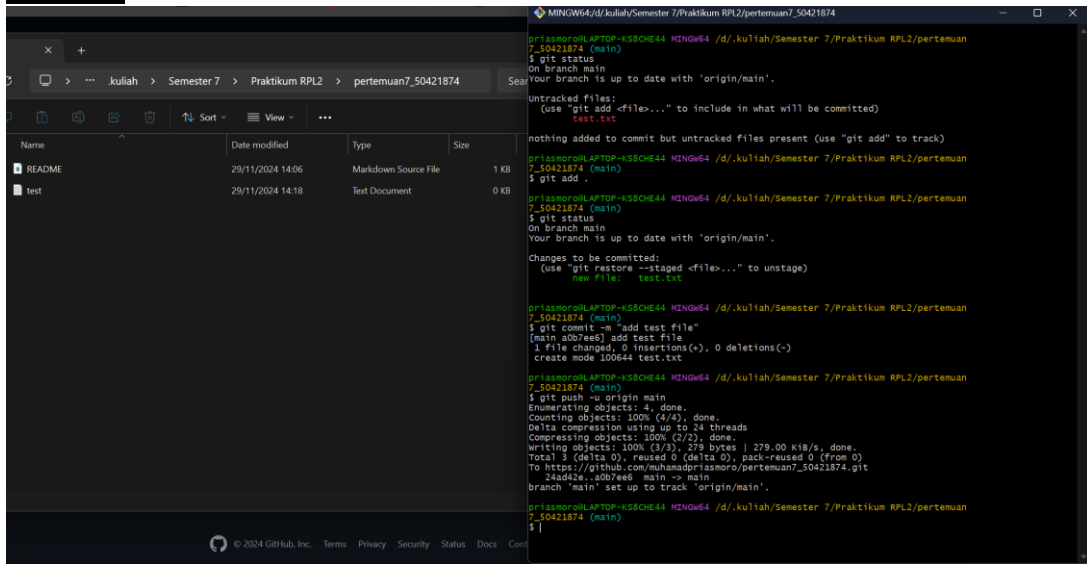


Clone Repository

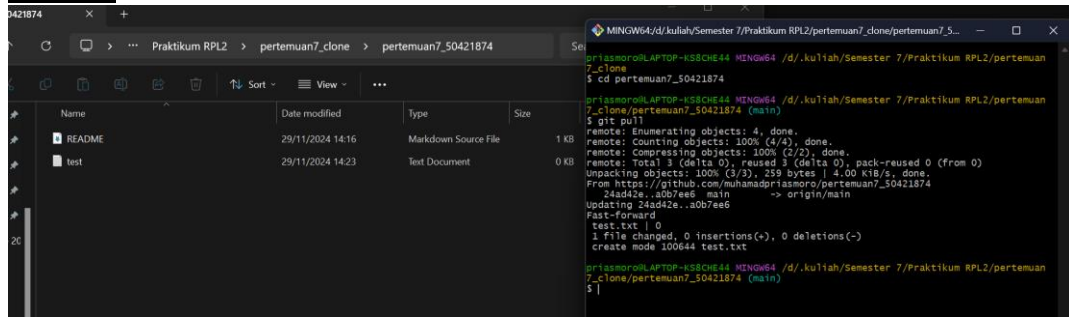




Git push

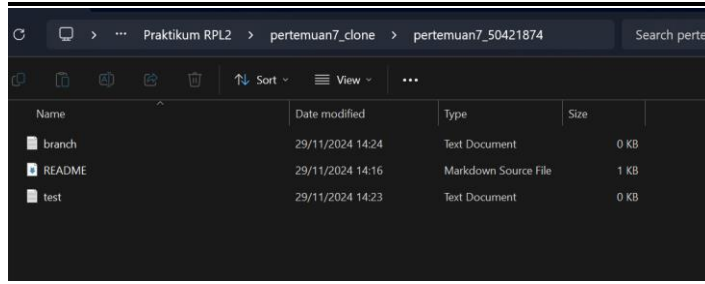


Git Pull



The image shows a file explorer window on the left and a terminal window on the right. The file explorer displays the contents of the 'pertemuan7_50421874' directory, including 'README' and 'test' files. The terminal window shows the execution of a 'git pull' command, which successfully updates the local repository from the remote origin/main branch.

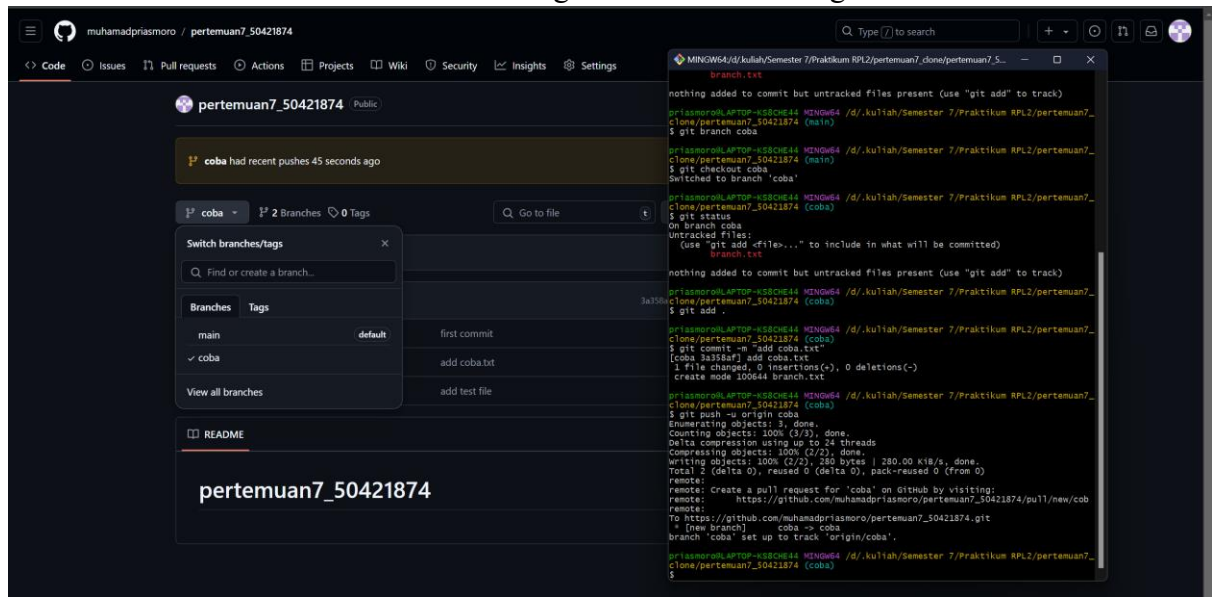
```
prismorolapTOP-KS8CHE44 MINGW64 /d/.kuliah/Semester 7/Praktikum RPL2/pertemuan7_50421874
$ cd pertemuan7_50421874
prismorolapTOP-KS8CHE44 MINGW64 /d/.kuliah/Semester 7/Praktikum RPL2/pertemuan7_50421874
$ git pull
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 1 (delta 0), pack-reused 0 (from 0)
Unpacking objects: 100% (3/3), 259 bytes | 4.00 KiB/s, done.
From https://github.com/muhamadprismoro/pertemuan7_50421874
24ad42e..a0b7ee8 main -> origin/main
Updating 24ad42e..a0b7ee8
Fast-forward
 test.txt | 0
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 test.txt
prismorolapTOP-KS8CHE44 MINGW64 /d/.kuliah/Semester 7/Praktikum RPL2/pertemuan7_50421874
$
```



The image shows a file explorer window displaying the contents of the 'pertemuan7_50421874' directory. The table lists the files and their properties.

Name	Date modified	Type	Size
branch	29/11/2024 14:24	Text Document	0 KB
README	29/11/2024 14:16	Markdown Source File	1 KB
test	29/11/2024 14:23	Text Document	0 KB

Membuat branch baru dan melakukan Merge branch “coba” dengan main



The image shows a GitHub repository page on the left and a terminal window on the right. The GitHub page displays the repository 'pertemuan7_50421874' with a new branch 'coba' created. The terminal window shows the execution of a 'git branch' command to create a new branch 'coba', followed by a 'git checkout' command to switch to the 'coba' branch. The terminal also shows the execution of a 'git merge' command to merge the 'coba' branch back into the 'main' branch.

```
prismorolapTOP-KS8CHE44 MINGW64 /d/.kuliah/Semester 7/Praktikum RPL2/pertemuan7_50421874
$ git branch coba
prismorolapTOP-KS8CHE44 MINGW64 /d/.kuliah/Semester 7/Praktikum RPL2/pertemuan7_50421874
$ git checkout coba
Switched to branch 'coba'
prismorolapTOP-KS8CHE44 MINGW64 /d/.kuliah/Semester 7/Praktikum RPL2/pertemuan7_50421874
$ 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)
prismorolapTOP-KS8CHE44 MINGW64 /d/.kuliah/Semester 7/Praktikum RPL2/pertemuan7_50421874
$ git add .
prismorolapTOP-KS8CHE44 MINGW64 /d/.kuliah/Semester 7/Praktikum RPL2/pertemuan7_50421874
$ git commit -m "add coba.txt"
[coba 2a358a7] add coba.txt
1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 branch.txt
prismorolapTOP-KS8CHE44 MINGW64 /d/.kuliah/Semester 7/Praktikum RPL2/pertemuan7_50421874
$ git push -u origin coba
Enumerating objects: 3, done.
Counting objects: 100% (3/3), done.
Delta compression using up to 24 threads
Compressing objects: 100% (2/2), done.
Writing objects: 100% (2/2), 280 bytes | 280.00 KiB/s, done.
Total 2 (delta 0), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Create a pull request for 'coba' on github by visiting:
remote:   https://github.com/muhamadprismoro/pertemuan7_50421874/pull/new/cob
To https://github.com/muhamadprismoro/pertemuan7_50421874.git
 * [new branch]   coba -> origin/coba
branch 'coba' set up to track 'origin/coba'.
prismorolapTOP-KS8CHE44 MINGW64 /d/.kuliah/Semester 7/Praktikum RPL2/pertemuan7_50421874
$
```

muhamadpriasmoro / pertemuan7_50421874

CodeIssuesPull requestsActionsProjectsWikiSecurityInsightsSettings

Open a pull request

Create a new pull request by comparing changes across two branches. If you need to, you can also [compare across forks](#). [Learn more about diff comparisons here.](#)

base: main ←

compare: coba ✓ Able to merge. These branches can be automatically merged.

Add a title

add coba.txt

Add a description

WritePreview

H B I

Add your description here...

Reviewers

No reviews

Assignees

No one—[assign yourself](#)

Labels

None yet

Projects

None yet

Milestone

No milestone

Development

Use [closing keywords](#) in the description to automatically close issues

Helpful resources

[GitHub Community Guidelines](#)

Create pull request

Remember, contributions to this repository should follow our [GitHub Community Guidelines](#).

add coba.txt #1

EditCode

Open

muhamadpriasm... wants to merge 1 commit into main from coba

Conversation0Commits1Checks0Files changed1

muhamadpriasmoro commented now

Owner · ···

No description provided.

add coba.txt

3a358af

Require approval from specific reviewers before merging

[Rulesets](#) ensure specific people approve pull requests before they're merged.

Add rule ×

Continuous integration has not been set up

[GitHub Actions](#) and [several other apps](#) can be used to automatically catch bugs and enforce style.

✓ This branch has no conflicts with the base branch

Merging can be performed automatically.

Merge pull request

You can also [open this in GitHub Desktop](#) or [view command line instructions](#).

Reviewers

No reviews

Still in progress? [Convert to draft](#)

Assignees

No one—[assign yourself](#)

Labels

None yet

Projects

None yet

Milestone

No milestone

Development

Successfully merging this pull request may close these issues.

Notifications

Customize

Add a comment

WritePreview

H B I

Merge pull request #1 from muhamadpriasmoro/coba


add coba.txt

This commit will be authored by 143477826+muhamadpriasmoro@users.noreply.github.com


Confirm merge

Cancel


add coba.txt #1


Merged muhamadpriasmoro merged 1 commit into `main` from `coba`  now


Conversation 0 Commits 1 Checks 0 Files changed 1

 muhamadpriasmoro commented now Owner ...

No description provided.

 add coba.txt 3a358af

 muhamadpriasmoro merged commit 1622906 into `main` now Revert

 Pull request successfully merged and closed
You're all set—the `coba` branch can be safely deleted. Delete branch

muhamadpriasmoro / pertemuan7_50421874

Code Issues Pull requests Actions Projects Wiki Security Insights Settings

ptemuan7_50421874 Public Pin Unwatch 1 Fork Star 0

`main` 2 Branches 0 Tags Add file Code

muhamadpriasmoro Merge pull request #1 from muhamadpriasmoro/coba 1622906 · 1 minute ago 4 Commits

README.md	first commit	21 minutes ago
branch.txt	add coba.txt	4 minutes ago
test.txt	add test file	11 minutes ago

README

ptemuan7_50421874

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](#)