LAPORAN AKHIR PRAKTIKUM

Mata Praktikum	: RPL 2
Kelas	: 4IA01
Praktikum ke-	: 7
Tanggal	: 25 November 2025
Materi	: GIT
NPM	: 50422657
Nama	: Harry Mardika
Ketua Asisten	: Satya Bara Justitia
Paraf Asisten	: -
Nama Asisten	: 1.
	2.
	3.
Jumlah Lembar	: 10 Lembar

LABORATORIUM INFORMATIKA

UNIVERSITAS GUNADARMA

2025

Soal

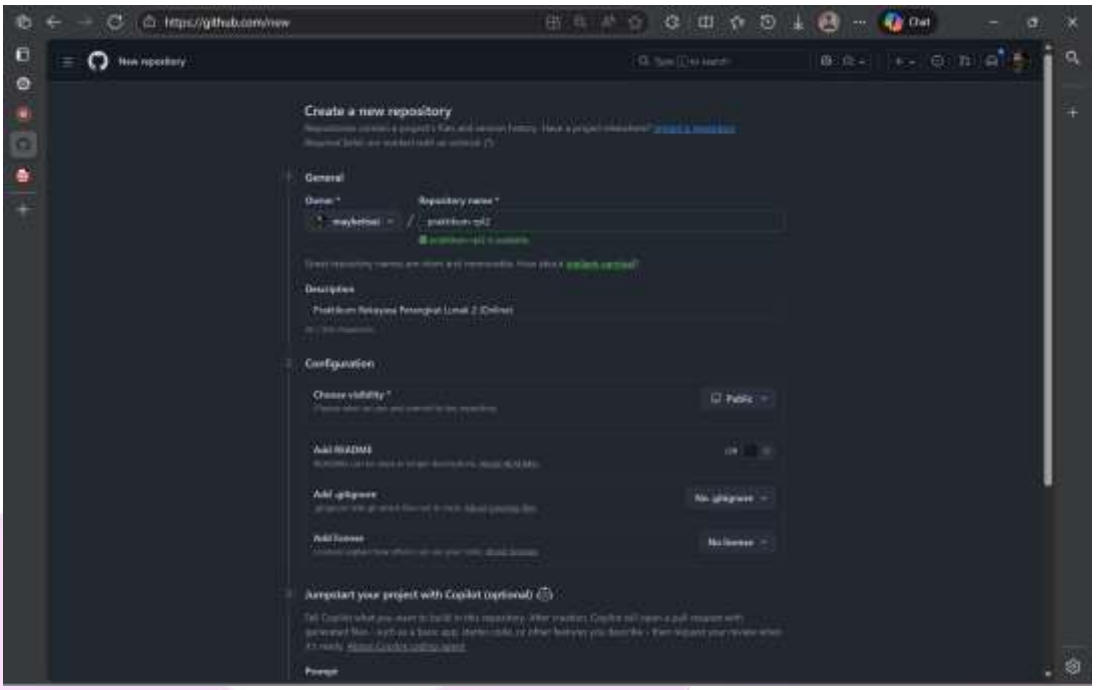
1. Buatlah repository baru dan masukkan file activity pertemuan 3 sampai dengan 6.

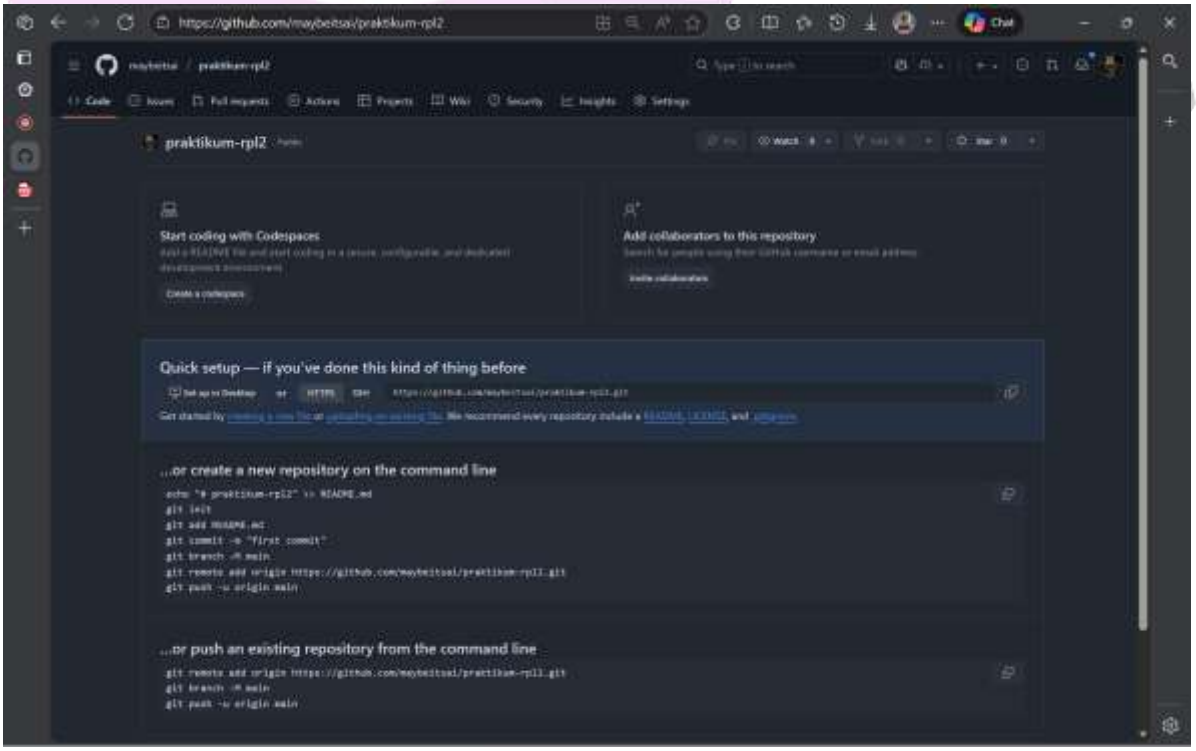
2. Tambahkan file readme.md pada repository yang dibuat berisikan penjelasan singkat terkait file act yang telah di push ke dalam repository

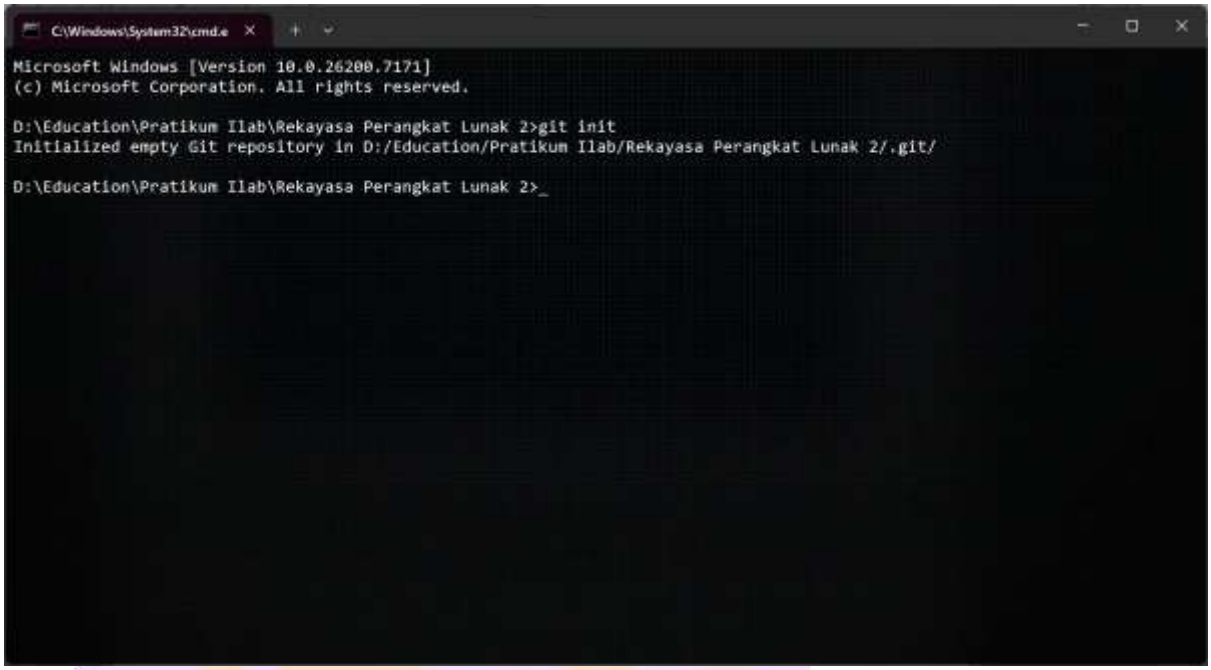
3. Jelaskan apa itu Git dan mengapa git dapat membantu dalam kerja sama tim.

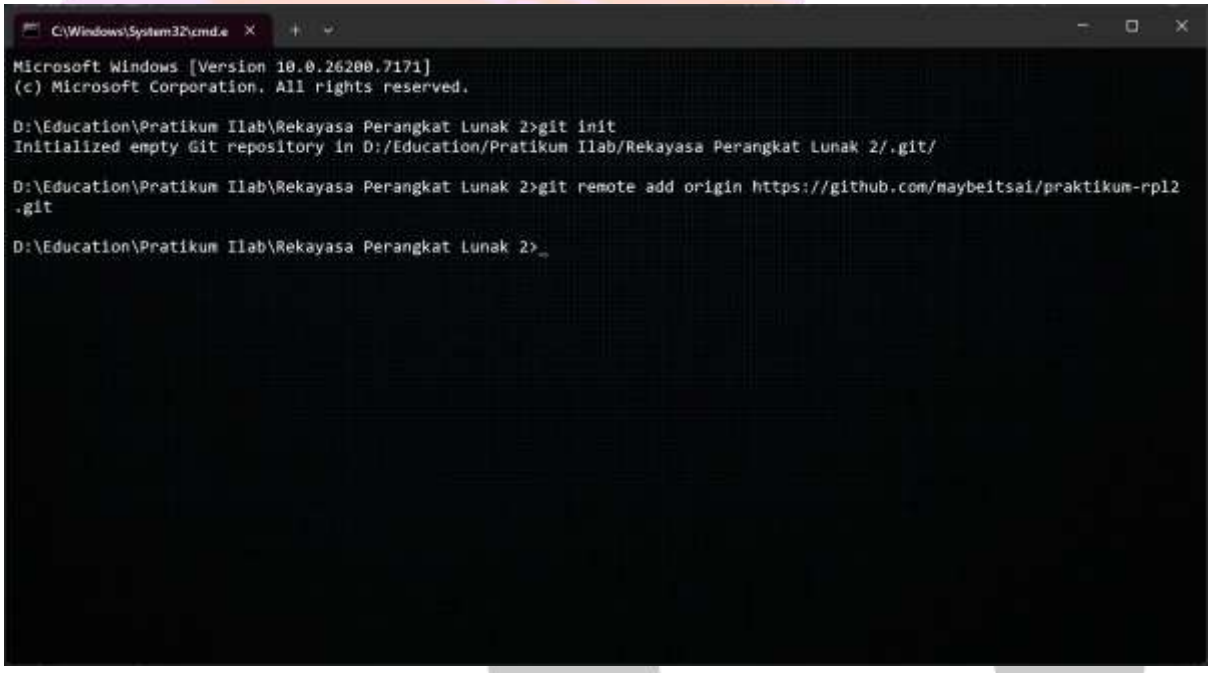
Penjelasan

1. Buatlah repository baru dan masukkan file activity pertemuan 3 sampai dengan 6. (Semua pertemuan)






C:\Windows\System32\cmd.e
Microsoft Windows [Version 10.0.26200.7171]
(c) Microsoft Corporation. All rights reserved.
D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>git init
Initialized empty Git repository in D:/Education/Pratikum Ilab/Rekayasa Perangkat Lunak 2/.git/
D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>_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Microsoft Windows [Version 10.0.26200.7171]
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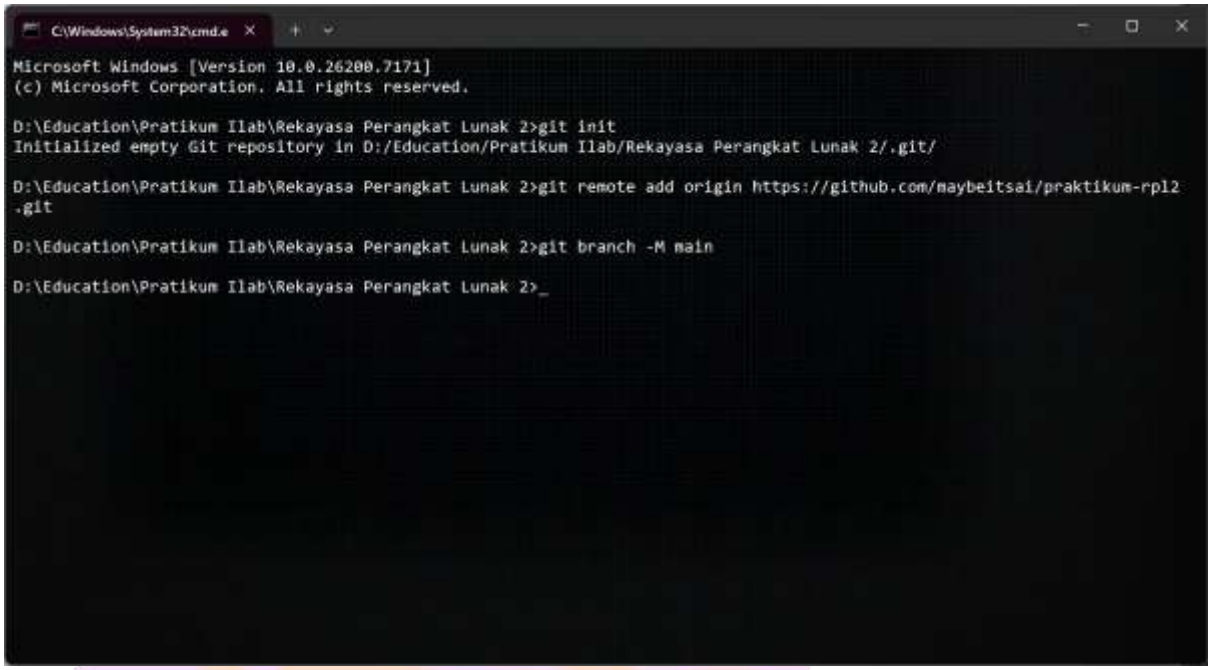
Initialized empty Git repository in D:/Education/Pratikum Ilab/Rekayasa Perangkat Lunak 2/.git/
D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>git remote add origin https://github.com/maybeitsai/praktikum-rpl2
.git
D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>_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(c) Microsoft Corporation. All rights reserved.
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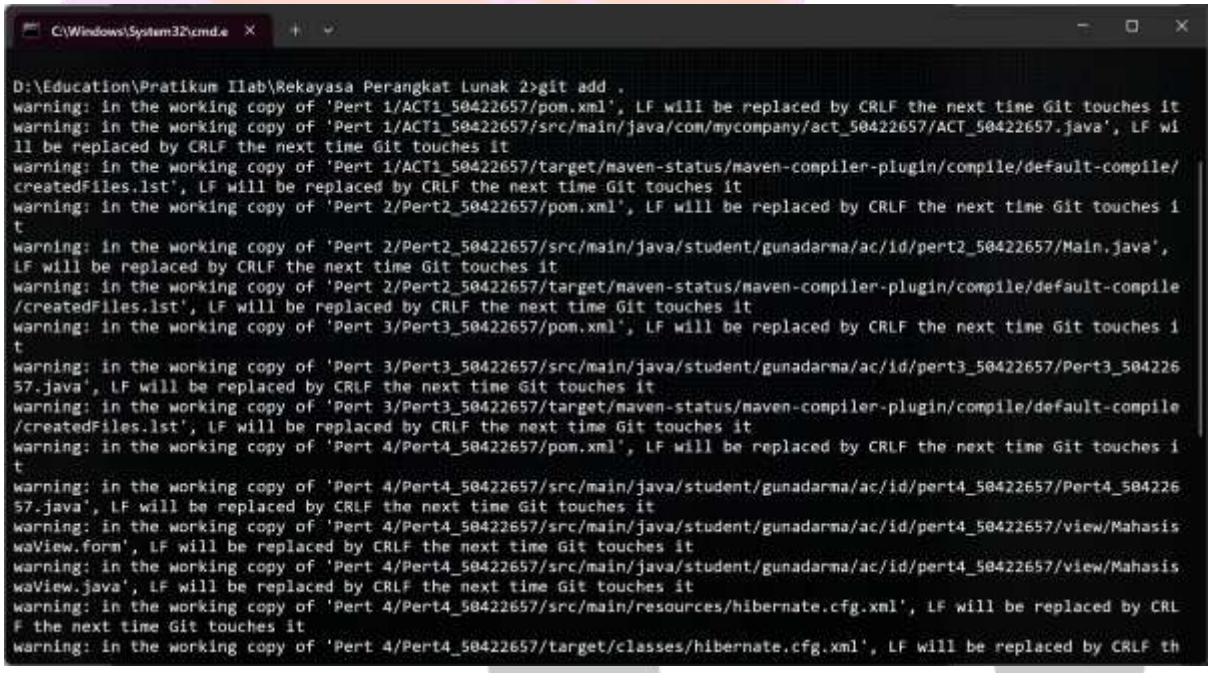
Initialized empty Git repository in D:/Education/Pratikum Ilab/Rekayasa Perangkat Lunak 2/.git/
D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>git remote add origin https://github.com/maybeitsai/praktikum-rpl2
.git
D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>git branch -M main
D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>_


C:\Windows\System32\cmd.e
D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>git add .
warning: in the working copy of 'Pert 1/ACT1_50422657/pom.xml', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'Pert 1/ACT1_50422657/src/main/java/com/mycompany/act_50422657/ACT_50422657.java', LF wi
ll be replaced by CRLF the next time Git touches it
warning: in the working copy of 'Pert 1/ACT1_50422657/target/maven-status/maven-compiler-plugin/compile/default-compile/
createdFiles.lst', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'Pert 2/Pert2_50422657/pom.xml', LF will be replaced by CRLF the next time Git touches i
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warning: in the working copy of 'Pert 2/Pert2_50422657/src/main/java/student/gunadarma/ac/id/pert2_50422657/Main.java',
LF will be replaced by CRLF the next time Git touches it
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warning: in the working copy of 'Pert 3/Pert3_50422657/src/main/java/student/gunadarma/ac/id/pert3_50422657/Pert3_504226
57.java', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'Pert 3/Pert3_50422657/target/maven-status/maven-compiler-plugin/compile/default-compile
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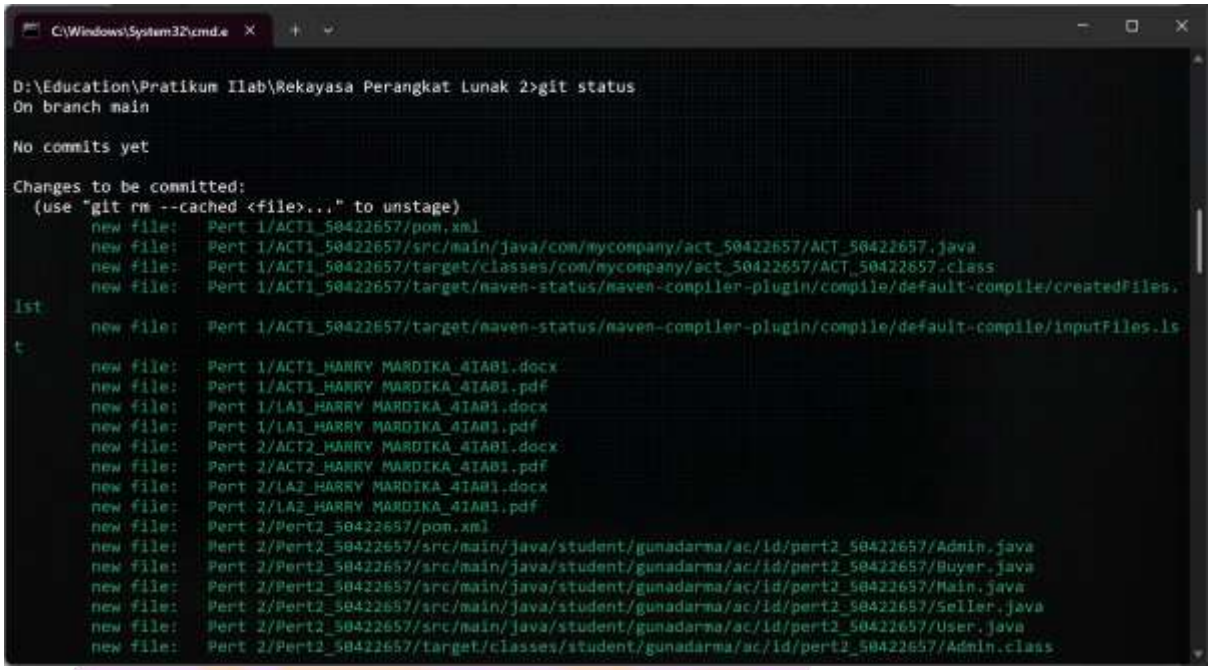
57.java', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'Pert 4/Pert4_50422657/src/main/java/student/gunadarma/ac/id/pert4_50422657/view/Mahasis
waView.form', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'Pert 4/Pert4_50422657/src/main/java/student/gunadarma/ac/id/pert4_50422657/view/Mahasis
waView.java', LF will be replaced by CRLF the next time Git touches it
warning: in the working copy of 'Pert 4/Pert4_50422657/src/main/resources/hibernate.cfg.xml', LF will be replaced by CRL
F the next time Git touches it
warning: in the working copy of 'Pert 4/Pert4_50422657/target/classes/hibernate.cfg.xml', LF will be replaced by CRLF th

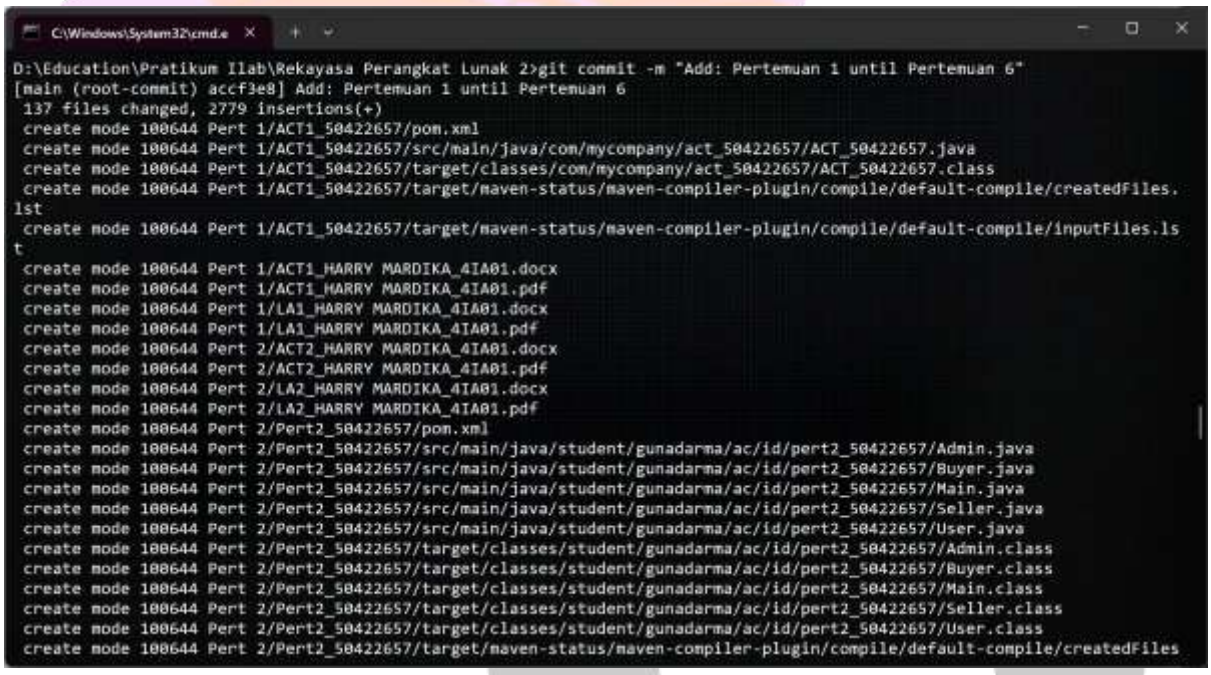


```
C:\Windows\System32\cmd.e

D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>git status
On branch main

No commits yet

Changes to be committed:
  (use "git rm --cached <file>..." to unstage)
        new file:   Pert 1/ACT1_50422657/pom.xml
        new file:   Pert 1/ACT1_50422657/src/main/java/com/mycompany/act_50422657/ACT_50422657.java
        new file:   Pert 1/ACT1_50422657/target/classes/com/mycompany/act_50422657/ACT_50422657.class
        new file:   Pert 1/ACT1_50422657/target/maven-status/maven-compiler-plugin/compile/default-compile/createdFiles.
lst
        new file:   Pert 1/ACT1_50422657/target/maven-status/maven-compiler-plugin/compile/default-compile/inputFiles.ls
t
        new file:   Pert 1/ACT1_HARRY MARDIKA_4IA01.docx
        new file:   Pert 1/ACT1_HARRY MARDIKA_4IA01.pdf
        new file:   Pert 1/LA1_HARRY MARDIKA_4IA01.docx
        new file:   Pert 1/LA1_HARRY MARDIKA_4IA01.pdf
        new file:   Pert 2/ACT2_HARRY MARDIKA_4IA01.docx
        new file:   Pert 2/ACT2_HARRY MARDIKA_4IA01.pdf
        new file:   Pert 2/LA2_HARRY MARDIKA_4IA01.docx
        new file:   Pert 2/LA2_HARRY MARDIKA_4IA01.pdf
        new file:   Pert 2/Pert2_50422657/pom.xml
        new file:   Pert 2/Pert2_50422657/src/main/java/student/gunadarma/ac/id/pert2_50422657/Admin.java
        new file:   Pert 2/Pert2_50422657/src/main/java/student/gunadarma/ac/id/pert2_50422657/Buyer.java
        new file:   Pert 2/Pert2_50422657/src/main/java/student/gunadarma/ac/id/pert2_50422657/Main.java
        new file:   Pert 2/Pert2_50422657/src/main/java/student/gunadarma/ac/id/pert2_50422657/Seller.java
        new file:   Pert 2/Pert2_50422657/src/main/java/student/gunadarma/ac/id/pert2_50422657/User.java
        new file:   Pert 2/Pert2_50422657/target/classes/student/gunadarma/ac/id/pert2_50422657/Admin.class
```



```
C:\Windows\System32\cmd.e

D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>git commit -m "Add: Pertemuan 1 until Pertemuan 6"
[main (root-commit) accf3e8] Add: Pertemuan 1 until Pertemuan 6
 137 files changed, 2779 insertions(+)
 create mode 100644 Pert 1/ACT1_50422657/pom.xml
 create mode 100644 Pert 1/ACT1_50422657/src/main/java/com/mycompany/act_50422657/ACT_50422657.java
 create mode 100644 Pert 1/ACT1_50422657/target/classes/com/mycompany/act_50422657/ACT_50422657.class
 create mode 100644 Pert 1/ACT1_50422657/target/maven-status/maven-compiler-plugin/compile/default-compile/createdFiles.
lst
 create mode 100644 Pert 1/ACT1_50422657/target/maven-status/maven-compiler-plugin/compile/default-compile/inputFiles.ls
t
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 create mode 100644 Pert 2/ACT2_HARRY MARDIKA_4IA01.docx
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 create mode 100644 Pert 2/Pert2_50422657/pom.xml
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 create mode 100644 Pert 2/Pert2_50422657/src/main/java/student/gunadarma/ac/id/pert2_50422657/User.java
 create mode 100644 Pert 2/Pert2_50422657/target/classes/student/gunadarma/ac/id/pert2_50422657/Admin.class
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 create mode 100644 Pert 2/Pert2_50422657/target/classes/student/gunadarma/ac/id/pert2_50422657/User.class
 create mode 100644 Pert 2/Pert2_50422657/target/maven-status/maven-compiler-plugin/compile/default-compile/createdFiles
```

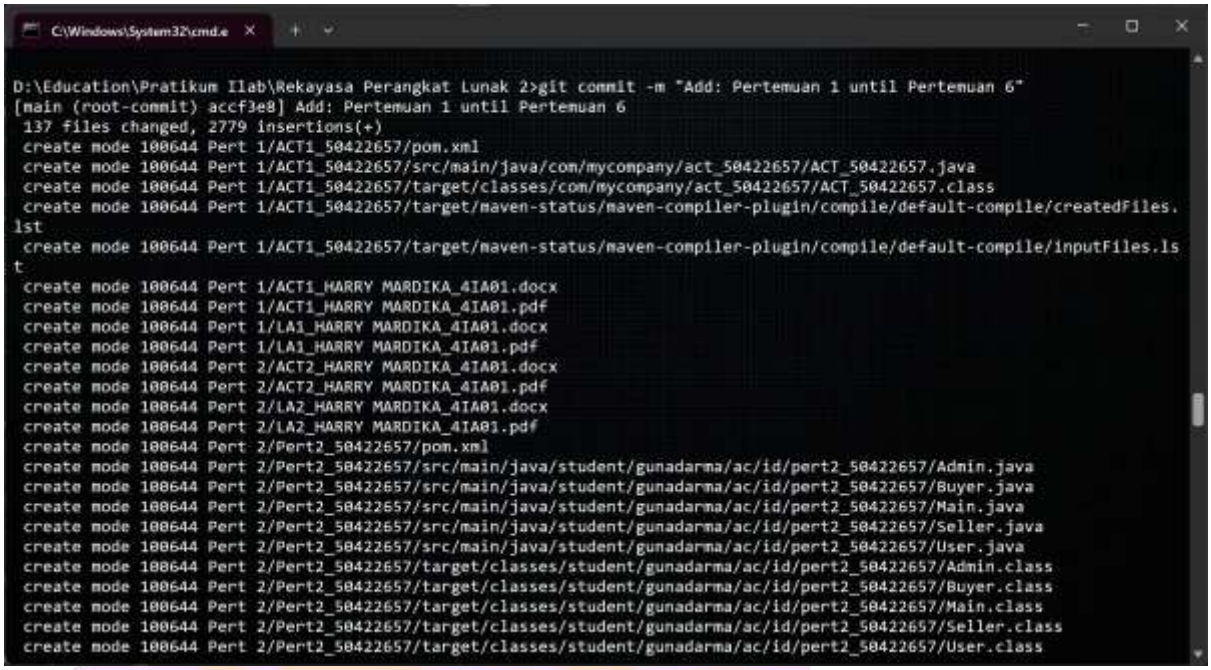
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create mode 100644 Pert 1/ACT1_50422657/target/classes/com/mycompany/act_50422657/ACT_50422657.class
create mode 100644 Pert 1/ACT1_50422657/target/maven-status/maven-compiler-plugin/compile/default-compile/createdFiles.lst
create mode 100644 Pert 1/ACT1_50422657/target/maven-status/maven-compiler-plugin/compile/default-compile/inputFiles.lst
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create mode 100644 Pert 1/LA1_HARRY MARDIKA_4IA01.pdf
create mode 100644 Pert 2/ACT2_HARRY MARDIKA_4IA01.docx
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create mode 100644 Pert 2/Pert2_50422657/src/main/java/student/gunadarma/ac/id/pert2_50422657/Admin.java
create mode 100644 Pert 2/Pert2_50422657/src/main/java/student/gunadarma/ac/id/pert2_50422657/Buyer.java
create mode 100644 Pert 2/Pert2_50422657/src/main/java/student/gunadarma/ac/id/pert2_50422657/Main.java
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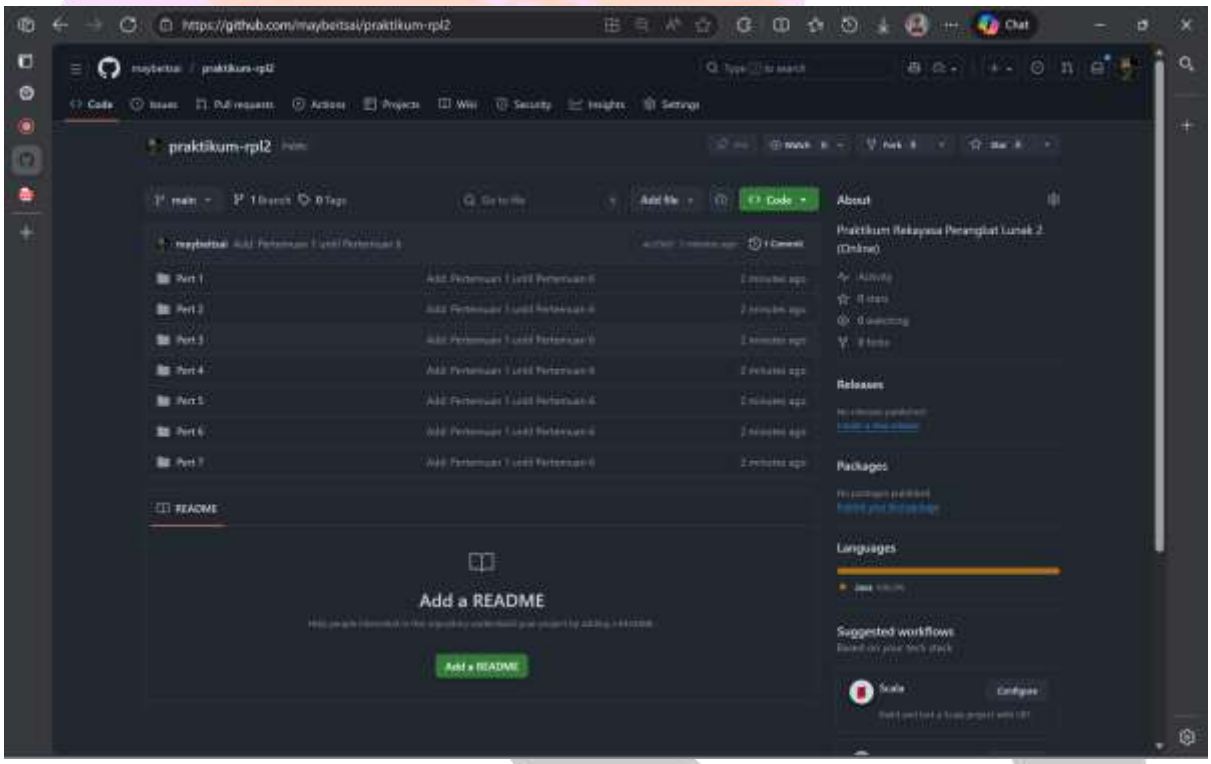
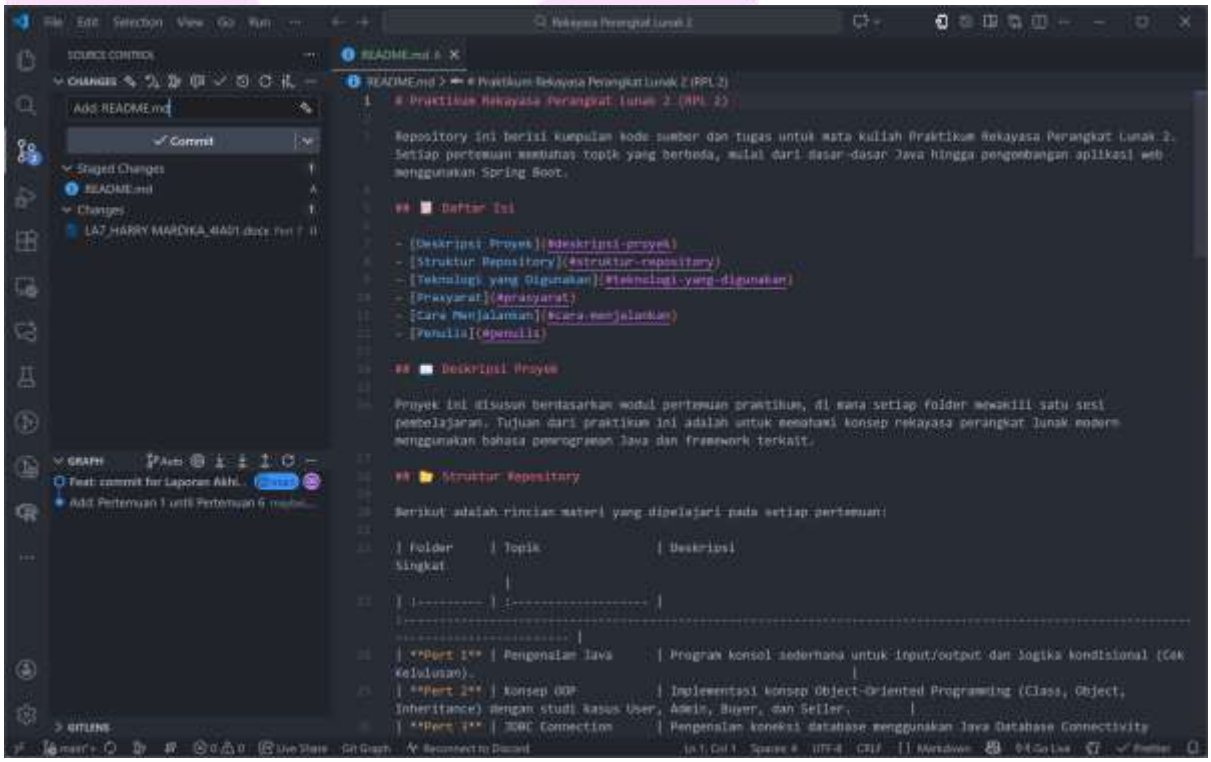
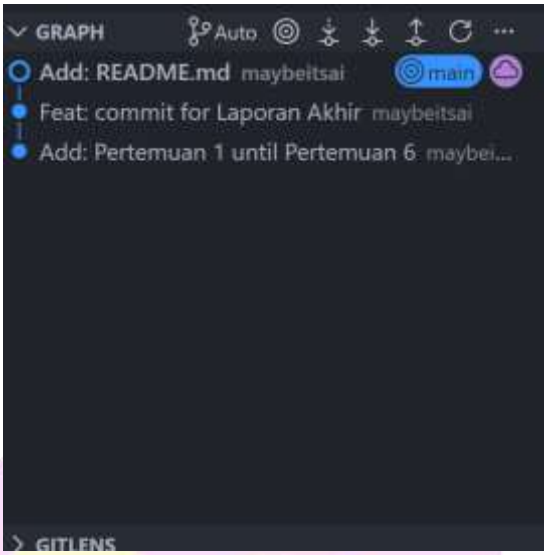
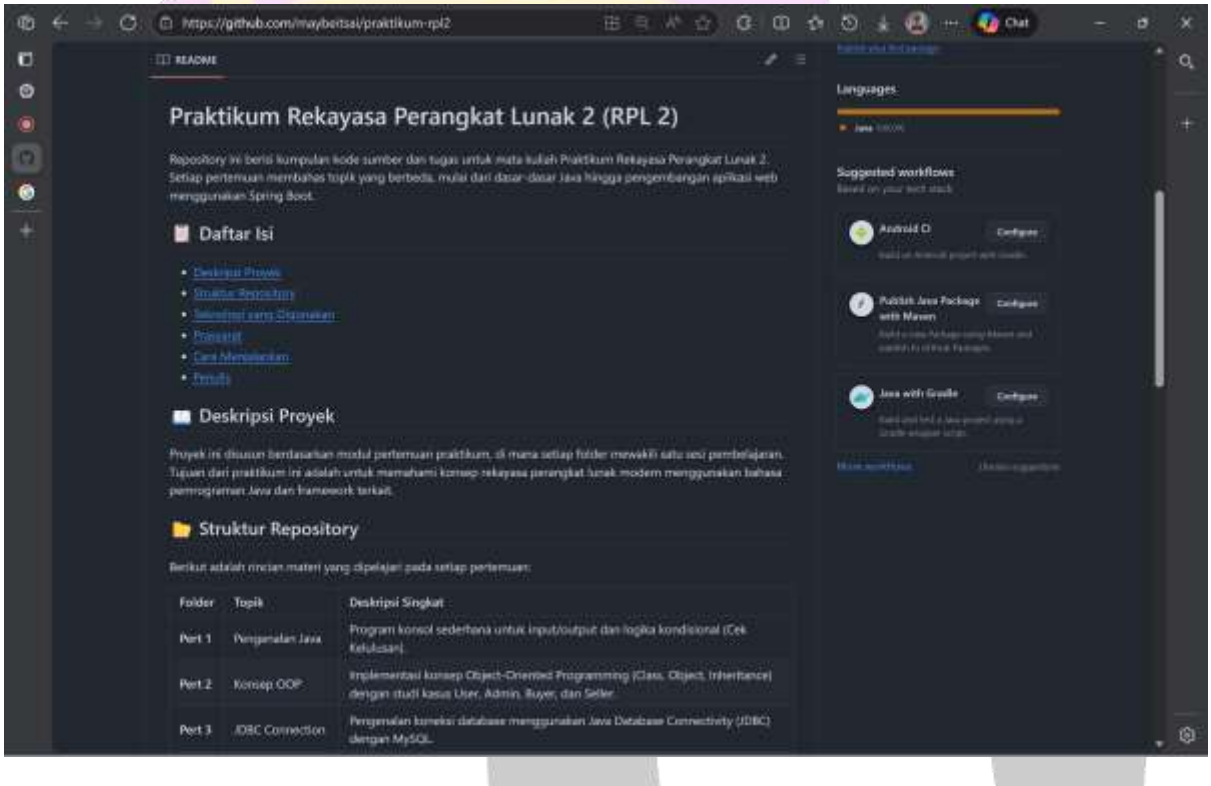

https://github.com/maybeitsai/praktikum-rpl2
praktikum-rpl2
README
Add a README
About
Releases
Packages
Languages
Suggested workflows

```
C:\Windows\System32\cmd.e
remote: Resolving deltas: 100% (48/48), done.
To https://github.com/maybeitsai/praktikum-rpl2.git
 * [new branch]      main -> main
branch 'main' set up to track 'origin/main'.

D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>git add .

D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>git commit "Feat: commit for Laporan Akhir"
error: pathspec 'Feat: commit for Laporan Akhir' did not match any file(s) known to git

D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>git commit -m "Feat: commit for Laporan Akhir"
[main 8bdb0ec] Feat: commit for Laporan Akhir
 4 files changed, 0 insertions(+), 0 deletions(-)
 delete mode 100644 Pert 7/ACT6_HARRY MARDIKA_4IA01.docx
 create mode 100644 Pert 7/ACT7_HARRY MARDIKA_4IA01.docx
 create mode 100644 Pert 7/ACT7_HARRY MARDIKA_4IA01.pdf
 delete mode 100644 Pert 7/~$T6_HARRY MARDIKA_4IA01.docx

D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>git push
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 16 threads
Compressing objects: 100% (5/5), done.
Writing objects: 100% (5/5), 14.34 MiB | 1.97 MiB/s, done.
Total 5 (delta 1), reused 0 (delta 0), pack-reused 0 (from 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/maybeitsai/praktikum-rpl2.git
   accf3e8..8bdb0ec  main -> main

D:\Education\Pratikum Ilab\Rekayasa Perangkat Lunak 2>_
```

2. Tambahkan file readme.md pada repository yang dibuat berisikan penjelasan singkat terkait file act yang telah di push ke dalam repository







3. Git adalah sistem pengontrol versi terdistribusi (Distributed Version Control System atau DVCS) yang dikembangkan oleh Linus Torvalds pada tahun 2005. Secara teknis, Git berfungsi untuk mencatat setiap perubahan (revisi) pada berkas-berkas dalam sebuah proyek perangkat lunak. Berbeda dengan sistem sentralisasi, Git memungkinkan setiap pengguna (klien) untuk memiliki salinan penuh dari seluruh repositori, termasuk riwayat perubahannya, pada mesin lokal mereka. Hal ini menjadikan Git memiliki performa yang cepat dan kemampuan pemulihan data yang tinggi karena tidak bergantung pada satu server pusat.

Peranan Git dalam Kerja Sama Tim Dalam konteks pengembangan perangkat lunak secara tim, Git memegang peranan krusial karena mekanisme berikut:

- Manajemen Percabangan (Branching) yang Efisien: Git memungkinkan setiap anggota tim untuk membuat cabang (branch) terpisah dari kode utama (master/main). Fitur ini memfasilitasi pengembangan fitur baru (feature development) atau perbaikan bug secara paralel tanpa mengganggu stabilitas kode utama yang sedang berjalan. Setiap anggota tim dapat bekerja di lingkungan lokalnya sendiri secara terisolasi.
- Penggabungan Kode (Merging) dan Resolusi Konflik: Setelah pengembangan pada cabang selesai, Git menyediakan mekanisme untuk menggabungkan kembali kode tersebut ke cabang utama. Git memiliki algoritma otomatis untuk mendeteksi dan menyatukan perubahan dari berbagai sumber. Apabila terjadi perubahan pada baris kode yang sama oleh dua orang berbeda, Git akan menandai hal tersebut sebagai konflik (conflict) yang harus diselesaikan secara manual, sehingga mencegah penimpaan kode (overwrite) secara tidak sengaja.
- Jejak Audit (Audit Trail) dan Riwayat Perubahan: Setiap perubahan yang disimpan (committed) dalam Git memiliki identitas yang jelas (nama penulis, email, dan waktu perubahan) serta pesan log. Hal ini menciptakan transparansi dan akuntabilitas dalam tim, memudahkan pelacakan sumber kesalahan (bug tracking), serta memungkinkan tim untuk mengembalikan kondisi proyek ke versi sebelumnya (revert) jika terjadi kesalahan fatal pada versi terbaru.
- Redundansi dan Keamanan Data: Karena sifatnya yang terdistribusi, setiap komputer anggota tim yang melakukan clone terhadap repositori bertindak sebagai cadangan (backup) data. Jika server repositori pusat mengalami kegagalan, data proyek beserta riwayatnya dapat dipulihkan sepenuhnya dari salah satu komputer lokal anggota tim.