

Git & Github

Deskripsi Tugas:

Tugas ini dirancang untuk membantu Anda memahami konsep dasar Git dan menguji kemampuan Anda dalam menggunakan perintah-perintah dasar Git. Anda akan diberikan sejumlah tugas untuk melakukan operasi sederhana menggunakan Git.

Instruksi:

1. Buatlah repositori Git baru dengan nama "MyFirstRepo".
2. Tambahkan file teks kosong dengan nama "README.md" ke dalam repositori.
3. Buatlah branch baru dengan nama "development".
4. Lakukan perubahan ke dalam file "README.md", tambahkan deskripsi singkat tentang proyek Anda.
5. Lakukan commit perubahan yang telah Anda buat.
6. Pindah ke branch "main" dan gabungkan branch "development" ke dalamnya.
7. Tambahkan file baru dengan nama "LICENSE" ke dalam repositori. Anda dapat menggunakan lisensi apa pun yang Anda inginkan.
8. Lakukan commit perubahan tersebut.
9. Buatlah tag untuk versi pertama proyek Anda dengan nama "v1.0".
10. Periksa log commit Anda dan pastikan semua operasi yang diminta telah dilakukan dengan benar.

Catatan: Pastikan Anda telah menginstal Git di komputer Anda sebelum memulai tugas ini. Anda juga dapat menggunakan platform seperti GitHub untuk menyimpan repositori Git Anda secara online dan berlatih kolaborasi dengan orang lain.

1. Membuat Repository "MyFirstRepo"

```
root@imsalVM:/home/imsalyunus# git init MyFirstRepo
Initialized empty Git repository in /home/imsalyunus/MyFirstRepo/.git/
root@imsalVM:/home/imsalyunus# cd MyFirstRepo/
```

2. Membuat file README.md

```
root@imsalVM:/home/imsalyunus/MyFirstRepo# touch README.md
root@imsalVM:/home/imsalyunus/MyFirstRepo# ls
README.md
root@imsalVM:/home/imsalyunus/MyFirstRepo#
```

Menyimpan file README.me ke (staged) dan disimpan ke Version Control (commit)

```
root@imsalVM:/home/imsalyunus/MyFirstRepo# git add README.md
root@imsalVM:/home/imsalyunus/MyFirstRepo# git commit -m "README.md Commit"
[master (root-commit) 8eebdc0] README.md Commit
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 README.md
root@imsalVM:/home/imsalyunus/MyFirstRepo#
root@imsalVM:/home/imsalyunus/MyFirstRepo# git status
On branch master
nothing to commit, working tree clean
root@imsalVM:/home/imsalyunus/MyFirstRepo#
```

Melihat catatan log pada repository

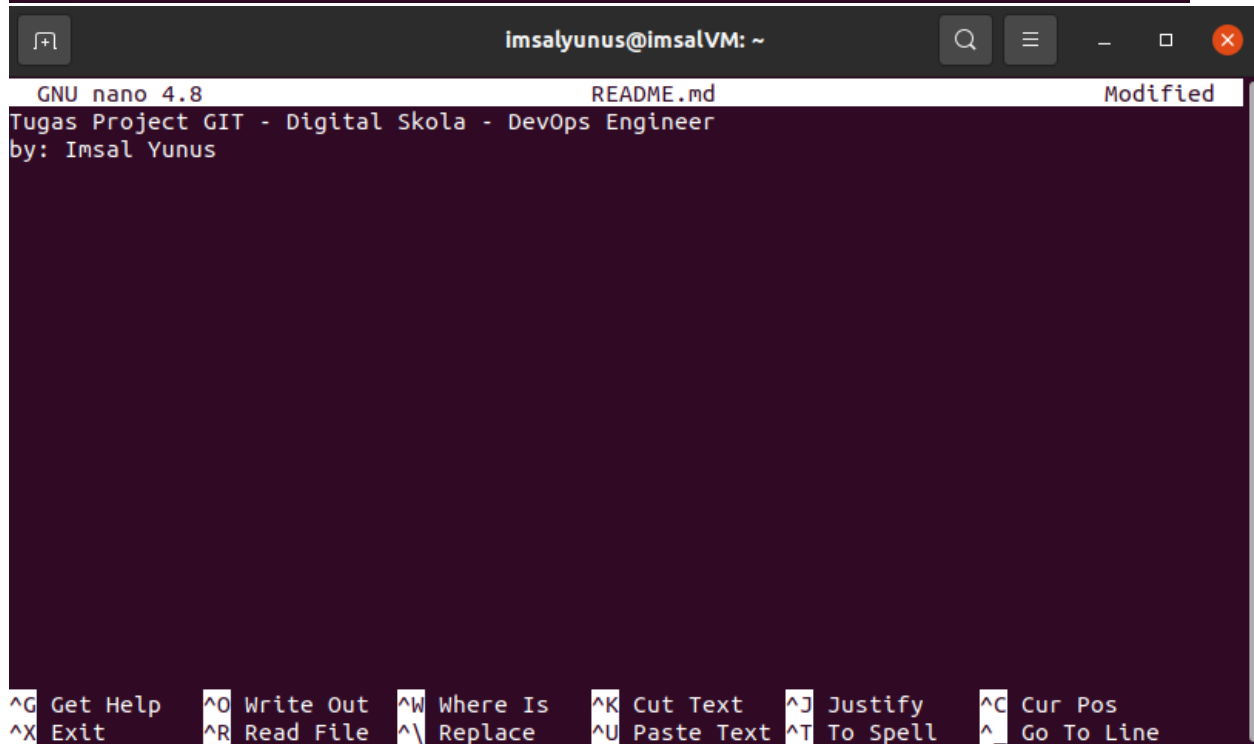
```
root@imsalVM:/home/imsalyunus/MyFirstRepo# git log --oneline
8eebdc0 (HEAD -> master) README.md Commit
root@imsalVM:/home/imsalyunus/MyFirstRepo#
```

3. Membuat Branch dengan nama "development"

```
root@imsalVM:/home/imsalyunus/MyFirstRepo# git branch development
root@imsalVM:/home/imsalyunus/MyFirstRepo# git branch
development
* master
root@imsalVM:/home/imsalyunus/MyFirstRepo#
```

4. Melakukan perubahan didalam file README.md

```
root@imsalVM:/home/imsalyunus/MyFirstRepo# nano README.md
root@imsalVM:/home/imsalyunus/MyFirstRepo#
```



```
GNU nano 4.8                                README.md                                Modified
Tugas Project GIT - Digital Skola - DevOps Engineer
by: Imsal Yunus

^G Get Help      ^O Write Out    ^W Where Is     ^K Cut Text     ^J Justify     ^C Cur Pos
^X Exit          ^R Read File    ^\ Replace      ^U Paste Text   ^T To Spell    ^_ Go To Line
```

5. Melakukan commit perubahan pada file README.md

```
root@imsalVM:/home/imsalyunus/MyFirstRepo# git commit -m "perubahan file"
root@imsalVM:/home/imsalyunus/MyFirstRepo# git status
On branch master
Changes not staged for commit:
  (use "git add <file>..." to update what will be committed)
  (use "git restore <file>..." to discard changes in working directory)
        modified:   README.md

no changes added to commit (use "git add" and/or "git commit -a")
root@imsalVM:/home/imsalyunus/MyFirstRepo#
root@imsalVM:/home/imsalyunus/MyFirstRepo# git add README.md
root@imsalVM:/home/imsalyunus/MyFirstRepo# git status
On branch master
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
        modified:   README.md

root@imsalVM:/home/imsalyunus/MyFirstRepo#
```

6. Menggabungkan branch development dari branch master

```
root@imsalVM:/home/imsalyunus/MyFirstRepo# git checkout master
M README.md
Already on 'master'
root@imsalVM:/home/imsalyunus/MyFirstRepo# git branch
development
* master
root@imsalVM:/home/imsalyunus/MyFirstRepo# git merge development
Already up to date.
root@imsalVM:/home/imsalyunus/MyFirstRepo# git checkout development
M README.md
Switched to branch 'development'
root@imsalVM:/home/imsalyunus/MyFirstRepo# git log --oneline
8eebdc0 (HEAD -> development, master) README.md Commit
root@imsalVM:/home/imsalyunus/MyFirstRepo#
root@imsalVM:/home/imsalyunus/MyFirstRepo#
```

7. Menambahkan file baru dengan nama "LICENSE"

```
root@imsalVM:/home/imsalyunus/MyFirstRepo# touch LICENSE-by-IMSAL
root@imsalVM:/home/imsalyunus/MyFirstRepo# git add LICENSE-by-IMSAL
root@imsalVM:/home/imsalyunus/MyFirstRepo# git status
On branch development
Changes to be committed:
  (use "git restore --staged <file>..." to unstage)
    new file:   LICENSE-by-IMSAL
    modified:   README.md
root@imsalVM:/home/imsalyunus/MyFirstRepo#
```

8. Melakukan commit perubahan

```
root@imsalVM:/home/imsalyunus/MyFirstRepo# git commit -m "LICENSE Commit"
[development d02d90a] LICENSE Commit
 2 files changed, 2 insertions(+)
 create mode 100644 LICENSE-by-IMSAL
root@imsalVM:/home/imsalyunus/MyFirstRepo#
root@imsalVM:/home/imsalyunus/MyFirstRepo# git log
commit d02d90a265c94019ecfb62d51bfb90807cc8d2a0 (HEAD -> development)
Author: Imsal Yunus <yunusimsal@gmail.com>
Date: Wed Mar 6 00:56:11 2024 +0700

    LICENSE Commit

commit 8eebdc049bde6b45fca8b0eca9c2c76dc1443bdf (master)
Author: Imsal Yunus <yunusimsal@gmail.com>
Date: Wed Mar 6 00:22:17 2024 +0700

    README.md Commit
root@imsalVM:/home/imsalyunus/MyFirstRepo#
```

9. Membuat tag dengan versi v1.0 untuk project tugas ini

```
root@imsalVM:/home/imsalyunus/MyFirstRepo# git tag v1.0
```

10. Mengecek log pada branch saat ini (development)

```
root@imsalVM:/home/imsalyunus/MyFirstRepo# git log
commit d02d90a265c94019ecfb62d51bfb90807cc8d2a0 (HEAD -> development, tag: v1.0)
Author: Imsal Yunus <yunusimsal@gmail.com>
Date: Wed Mar 6 00:56:11 2024 +0700

    LICENSE Commit

commit 8eebdc049bde6b45fca8b0eca9c2c76dc1443bdf (master)
Author: Imsal Yunus <yunusimsal@gmail.com>
Date: Wed Mar 6 00:22:17 2024 +0700

    README.md Commit
root@imsalVM:/home/imsalyunus/MyFirstRepo#
```

=====CMIIW=====

```
root@imsalVM:/home/imsalyunus/MyFirstRepo# git checkout master
Switched to branch 'master'
root@imsalVM:/home/imsalyunus/MyFirstRepo# git log
commit 8eebdc049bde6b45fca8b0eca9c2c76dc1443bdf (HEAD -> master)
Author: Imsal Yunus <yunusimsal@gmail.com>
Date: Wed Mar 6 00:22:17 2024 +0700

    README.md Commit
root@imsalVM:/home/imsalyunus/MyFirstRepo# git merge development
Updating 8eebdc0..d02d90a
Fast-forward
 LICENSE-by-IMSAL | 0
 README.md         | 2 ++
 2 files changed, 2 insertions(+)
 create mode 100644 LICENSE-by-IMSAL
root@imsalVM:/home/imsalyunus/MyFirstRepo# git log
commit d02d90a265c94019ecfb62d51bfb90807cc8d2a0 (HEAD -> master, tag: v1.0, development)
Author: Imsal Yunus <yunusimsal@gmail.com>
Date: Wed Mar 6 00:56:11 2024 +0700

    LICENSE Commit

commit 8eebdc049bde6b45fca8b0eca9c2c76dc1443bdf
Author: Imsal Yunus <yunusimsal@gmail.com>
Date: Wed Mar 6 00:22:17 2024 +0700

    README.md Commit
root@imsalVM:/home/imsalyunus/MyFirstRepo#
```