



# Muhammad Ramadiansyah

Finaccel Machine Learning Engineer

Experiences in Machine Learning Engineer,
Data Scientist, Full Stack Web Developer and
Product Manager.

**Working Experiences** 





**Education Background** 







# Topik Collaborative Working using Git



# Topik 1: Introduction to Git and Command Line Interface

- Introduction to Command Line Interface
- Understanding git environment
- 3. Commit your first file
- 4. Introduction to Github
- 5. Create your own README

#### Topik 2: Github for Workflow Management

- 1. Clone and pull Repository
- 2. Branch management
- 3. Manage code conflicts
- 4. Create and review pull request

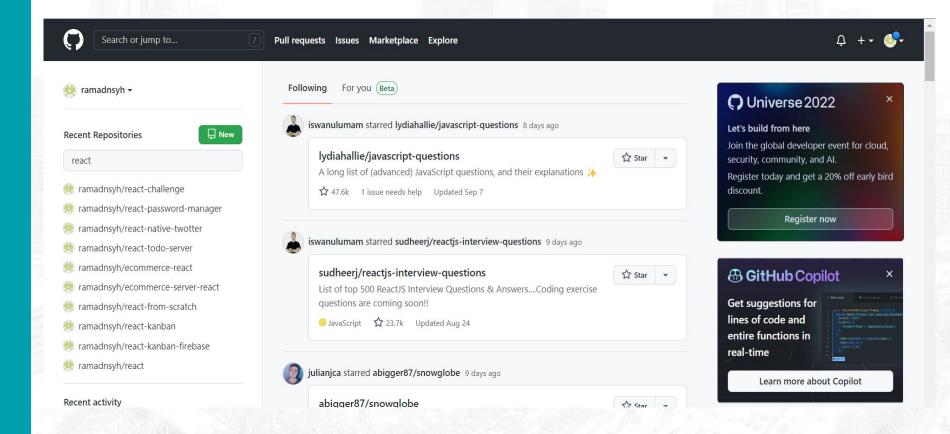


#### **Prerequisites:**

- 1. Create your Github Account
- 2. Install git command line interface
- 3. Instalasi text editor e.g vscode
- 4. Video akan menggunakan Windows

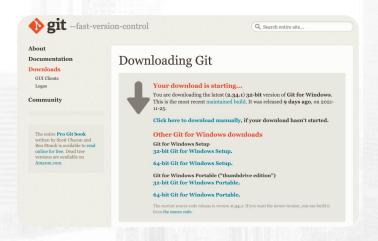


## **Login Github Account**





#### **Instalasi Git**



Untuk Windows, bisa mengunduh melalui <u>git-scm</u>.

```
□ ramadnsyh@Ramadiansyah-PC:/mnt/c/Users/Rama$ sudo apt-get install git ramadnsyh@Ramadiansyah-PC:/mnt/c/Users/Rama$ sudo apt-get install git
```

Untuk sistem berbasis Debian (Ubuntu, Debian, dll), dapat menjalankan perintah: <a href="mailto:sudo">sudo</a> apt-get install git

Untuk sistem berbasis MacOS, dapat menjalankan perintah: brew install git



#### **Instalasi Git**

```
Microsoft Windows [Version 10.0.22000.978]
(c) Microsoft Corporation. All rights reserved.

C:\Users\Rama>git --version
git version 2.36.0.windows.1

C:\Users\Rama>
```

Pastikan bahwa Git sudah terpasang dengan benar, dengan menjalankan perintah

git --version



#### Instalasi vscode

#### Download Visual Studio Code

Free and built on open source. Integrated Git, debugging and extensions.





User Installer 64 bit 32 bit ARM
System Installer 64 bit 32 bit ARM
.zip 64 bit 32 bit ARM









Snap Stor

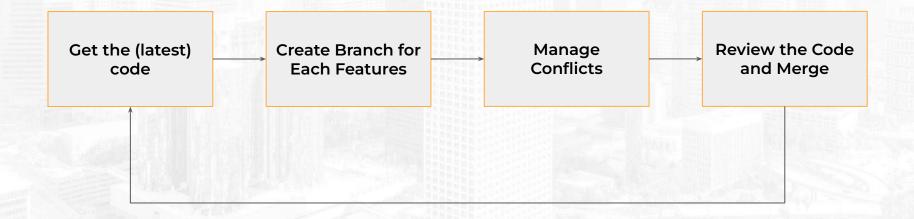




.zip Universal Intel Chip Apple Silicon



#### **Github Workflow**





Collaborative Working using Git

Github for Workflow Management



#### **Outline Pembelajaran**

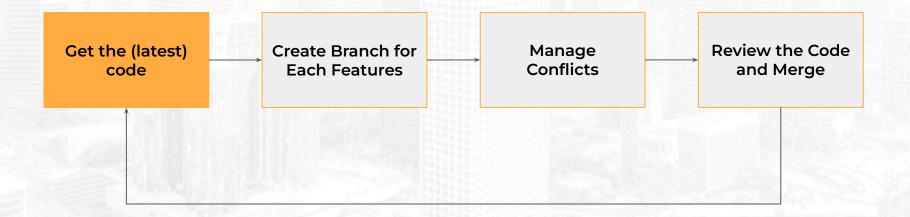


#### **Github for Workflow Management**

	Clone and pull Repository
į.	Branch Management
<u></u>	Manage code conflicts
	Create and review Pull Request



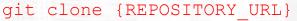
#### **Github Workflow**





#### Git Clone (Dokumentasi)

Sebagai bagian dari organisasi, kita dituntut untuk bisa **berkolaborasi**. Baik dengan kolega satu tim atau dengan tim-tim yang lain dalam sebuah organisasi.





1º master → 1º 2 branches ○ 0 tags		Go to file Add file ▼ Cod				
Your master branch isn't protected Protect this branch from force pushing, deletion, or require status checks before		believed the second second second	① 0 stars ① 1 watching ② 0 forks			
Protect this branch Dismiss		https://github.com/ranadnsyh/project_repo Use Git or checkout with SVN using the web URL	l eleases  l p releases published  Gleate a new release			
mramadnsyh add readme		( Open with GitHub Desktop	vieate a new release			
README.md	add readme	Download ZIP	l ackages			
skripsi.txt	Second Commit	1 hour a	p packages published blish your first package			
README.md		4				
Latar Belakang						

```
C:\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro_to_git>git clone https://github.com/ramadnsyh/project_repo.git cloning into 'project_repo'...
remote: Enumerating objects: 12, done.
remote: Counting objects: 100% (12/12), done.
remote: Compressing objects: 100% (6/6), done.
remote: Total 12 (delta 1), reused 11 (delta 0), pack-reused 0
Receiving objects: 100% (12/12), done.
Resolving deltas: 100% (12/12), done.
Resolving deltas: 100% (1/1), done.
C:\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro_to_git>_
```



#### Git Pull (Dokumentasi)

Jika terdapat perubahan baru pada remote repo, namun belum ter-update pada local repo di komputer kita, update repository dengan yang paling baru dengan menggunakan:

#### git pull

```
Jsers\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro to git\rakamin project>git status
                                                                                                                                                      remote: Enumerating objects: 5, done.
ur branch is up to date with 'origin/master'
anges not staged for commit:
(use "git add <file>..." to update what will be committed)
(use "git restore <file>..." to discard changes in working directory)
changes added to commit (use "git add" and/or "git commit -a")
\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro_to_git\rakamin_project>git add
                                                                                                                                                         branch
\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro to git\rakamin project>git commit -m "third commit for conflict"
master 236bf19] third commit for conflict
                                                                                                                                                         baeba54..236bf19 master
file changed, 1 insertion(+), 1 deletion(-)
                                                                                                                                                      Updating baeba54..236bf19
\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro to git\rakamin project>git push origin master
                                                                                                                                                      Fast-forward
numerating objects: 5, done.
unting objects: 100% (5/5), done.
                                                                                                                                                      skripsi.txt | 2 +
lta compression using up to 8 threads
mpressing objects: 100% (2/2), done.
riting objects: 100% (3/3), 320 bytes | 320.00 KiB/s, done.
tal 3 (delta 0), reused 0 (delta 0), pack-reused 0
https://github.com/ramadnsyh/project repo.git
baeba54..236bf19 master -> master
\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro to git\rakamin project>_
```

Ketika rekan kerja kita melakukan commit ketiga ke git

```
C:\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro_to_git\project_repo>git pull origin master remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (2/2), done.
remote: Total 3 (delta 0), reused 3 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), 300 bytes | 42.00 KiB/s, done.
From https://github.com/ramadnsyh/project_repo
* branch master -> FETCH_HEAD
    baeba54..236bf19 master -> origin/master
Updating baeba54..236bf19
Fast-forward
    skripsi.txt | 2 +-
    1 file changed, 1 insertion(+), 1 deletion(-)

C:\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro_to_git\project_repo>_
```

Update local repository kita dengan git pull untuk mendapatkan file nya

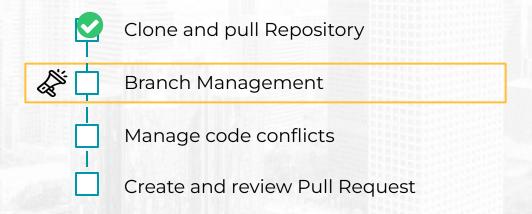


# **YUK LATIHAN !!!**

#### **Outline Pembelajaran**

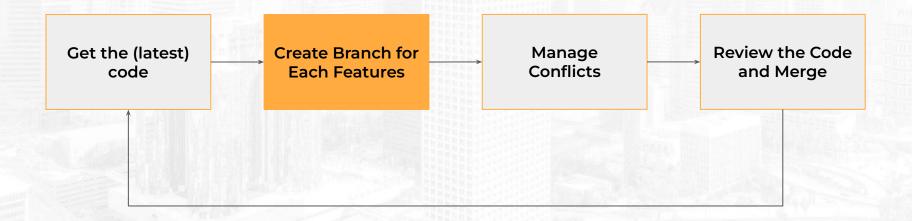


#### **Github for Workflow Management**



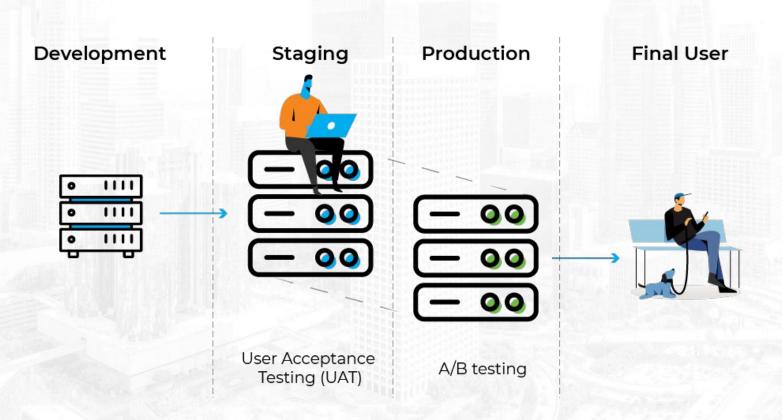


# **Github Workflow**



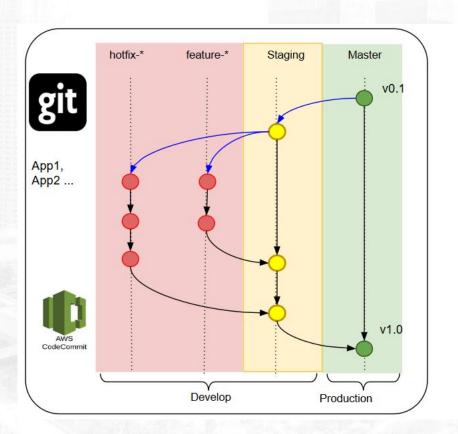


#### **Software Environment**





#### **Software Environment**

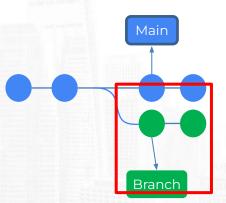


- 1 Local
- 2 Staging
- 3 Production



#### Git Branch (Dokumentasi)

Dalam pengembangan suatu proyek, akan banyak sekali fitur-fitur yang akan diimplementasikan. Dan fitur-fitur tersebut mungkin bisa dikerjaan secara bersamaan (parallel). Dan disitulah percabangan bisa terjadi. Agar lebih fokus pengerjaannya dan tidak menganggu pekerjaan utama, perlu dibuat sebuah branch.



#### Syntax:

```
git branch # cek daftar brach yang ada
git branch {YOUR_NEW_BRANCH} # membuat branch baru
git checkout {YOUR_NEW_BRANCH} # pindah ke branch baru
git checkout -b {YOUR_NEW_BRANCH} # pindah dan membuat branch baru
```

```
C:\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro_to_git\rakamin_project>git branch
* master

C:\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro_to_git\rakamin_project>git branch example-branch

C:\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro_to_git\rakamin_project>git branch
example-branch
* master

C:\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro_to_git\rakamin_project>git checkout example-branch
Switched to branch 'example-branch'

C:\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro_to_git\rakamin_project>git branch
* example-branch
master

C:\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro_to_git\rakamin_project>___

C:\Users\Rama\Documents\sandbox\python-courses\Collaborative Working using Git\intro_to_git\rakamin_project>___
```

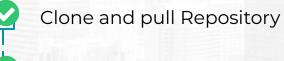


# **YUK LATIHAN !!!**

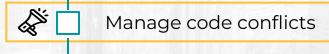
#### **Outline Pembelajaran**



#### **Github for Workflow Management**



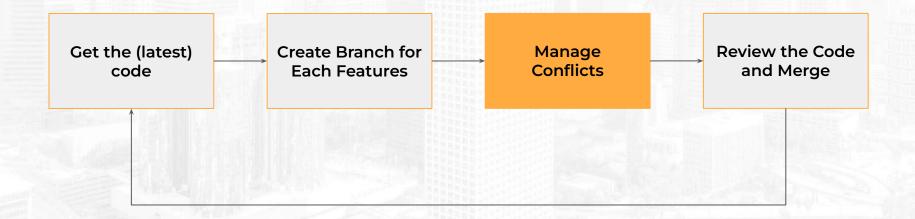




Create and review Pull Request

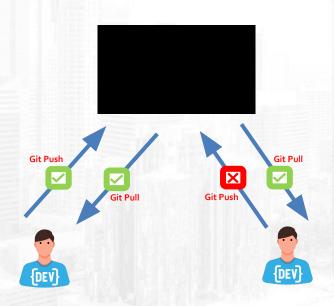


#### **Github Workflow**





# **Merge Conflict**



Konflik secara umum terjadi Ketika dua orang mengubah baris yang sama dalam sebuah berkas, atau jika salah satu menghapus sebuah berkas sementara yang lainnya melakukan modifikasi.



# **Merge Conflict Scenario**

```
(base) mmirzafahmi@Mirza-Fahmi project rakamin % echo "totally different content to merge later" > merge.txt
(base) mmirzafahmi@Mirza-Fahmi project_rakamin % git add merge.txt
(base) mmirzafahmi@Mirza-Fahmi project rakamin % git commit -am"edited the content of merge.txt to cause a conflict"
[new_branch 2131a10] edited the content of merge.txt to cause a conflict
1 file changed, 1 insertion(+)
 create mode 100644 merge.txt
(base) mmirzafahmi@Mirza-Fahmi project rakamin % git checkout master
(base) mmirzafahmi@Mirza-Fahmi project rakamin % echo "content to append" >> merge.txt
(base) mmirzafahmi@Mirza-Fahmi project_rakamin % git add merge.txt
(base) mmirzafahmi@Mirza-Fahmi project_rakamin % git commit -am"appended content to merge.txt"
[master a5fc491] appended content to merge.txt
1 file changed, 1 insertion(+)
create mode 100644 merge.txt
(base) mmirzafahmi@Mirza-Fahmi project_rakamin % git merge new_branch
CONFLICT (add/add): Merge conflict in merge.txt
Auto-merging merge.txt
Automatic merge failed; fix conflicts and then commit the result.
```

(base) mmirzafahmi@Mirza-Fahmi project\_rakamin % git add . (base) mmirzafahmi@Mirza-Fahmi project\_rakamin % git commit −m "merged and resolved the conflict in merge.txt" [master 8341627] merged and resolved the conflict in merge.txt 

# **YUK LATIHAN !!!**

#### **Outline Pembelajaran**



#### **Github for Workflow Management**



Clone and pull Repository



Branch Management



Manage code conflicts

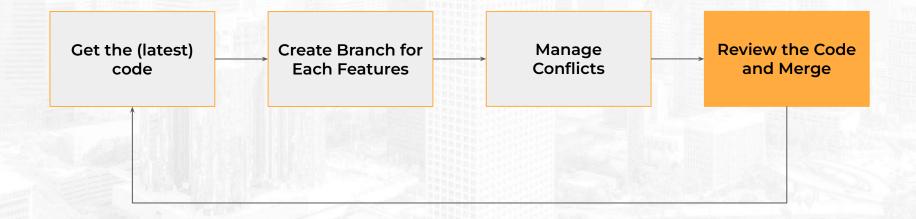




Review and create Pull Request

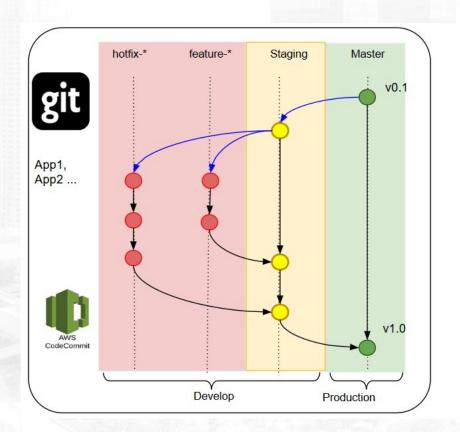


#### **Github Workflow**



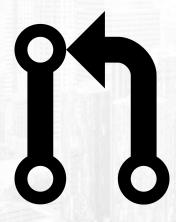


#### **Software Environment**



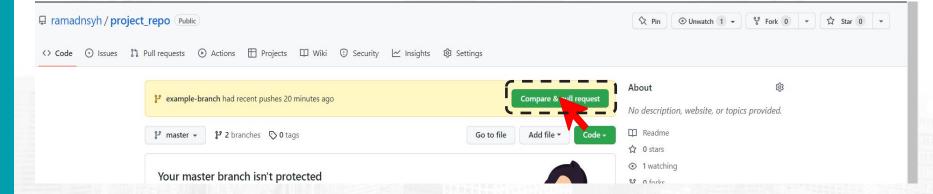
- 1 Local
- 2 Staging
- 3 Production



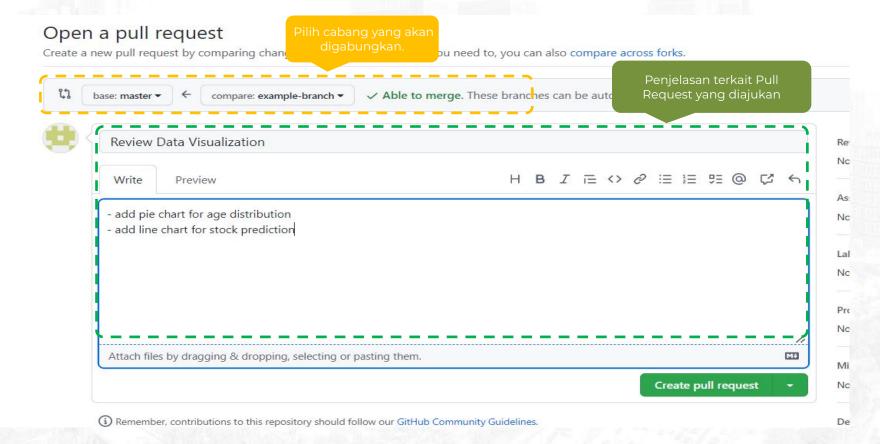


Pull request adalah alur kerja ketika pengembang meminta perubahan yang telah di commit di repositori eksternal untuk di pertimbangkan menjadi bagian dari repositori utama.

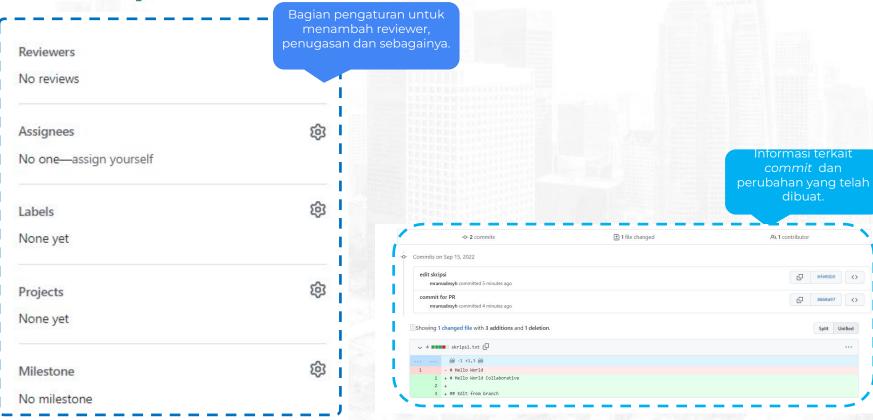






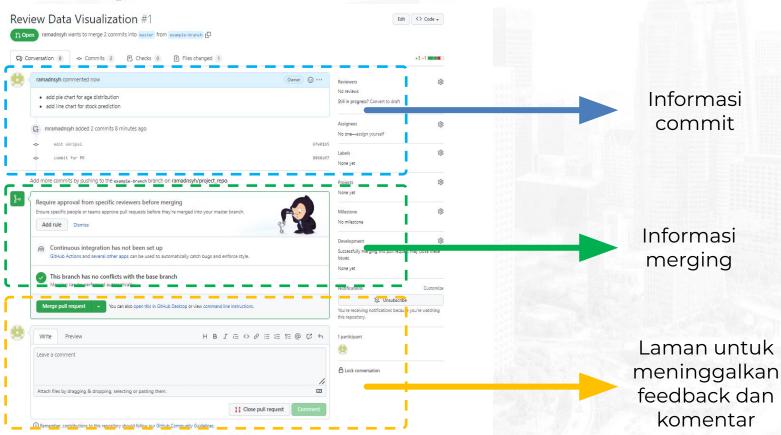








## **Pull Request Review**



#### **Outline Pembelajaran**



#### **Github for Workflow Management**



Clone and pull Repository



Branch Management



Manage code conflicts



Create and review pull request





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