

# Cloud DevOps Engineering

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## Module4 – GitHub

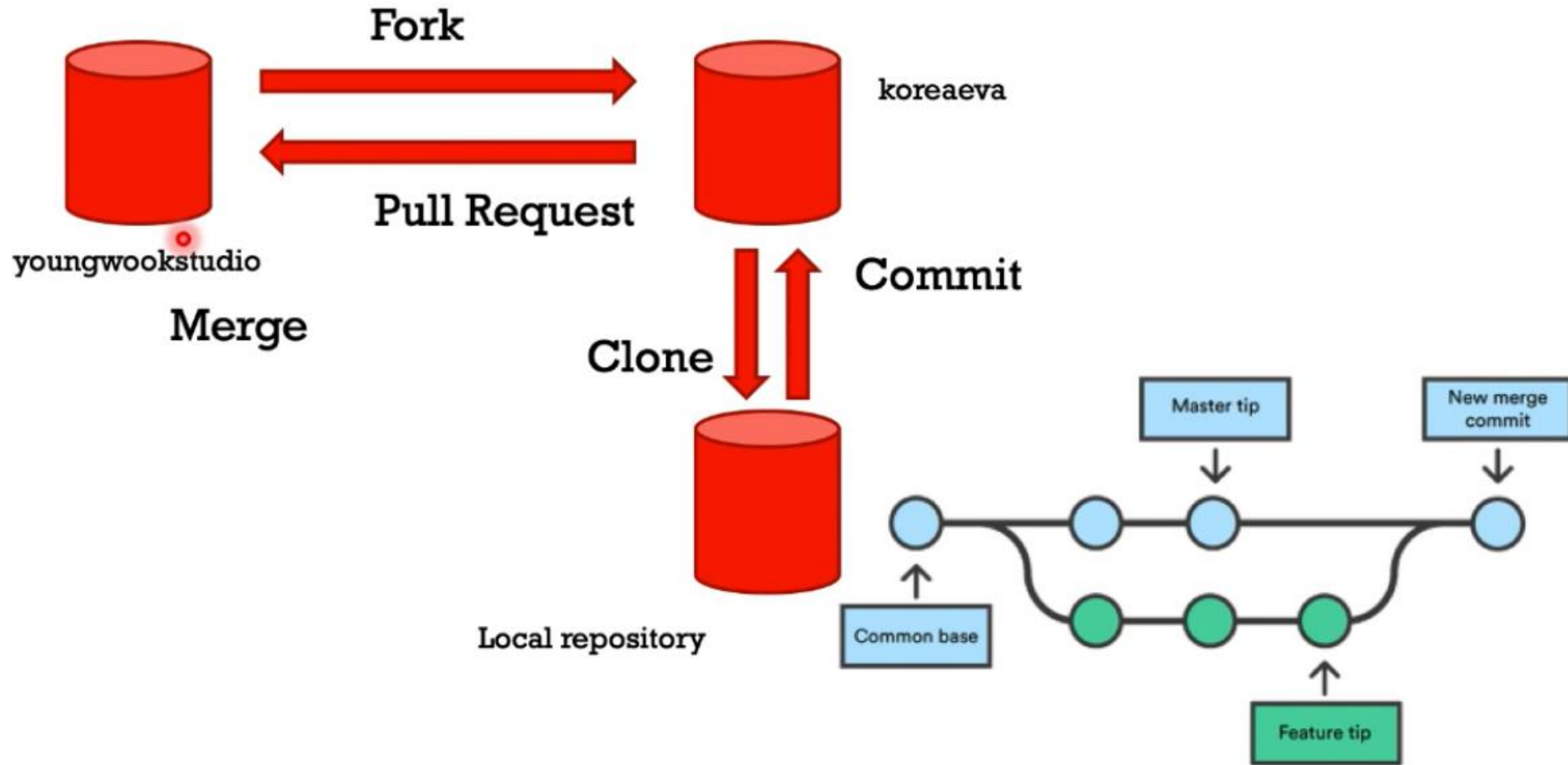
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# GitHub



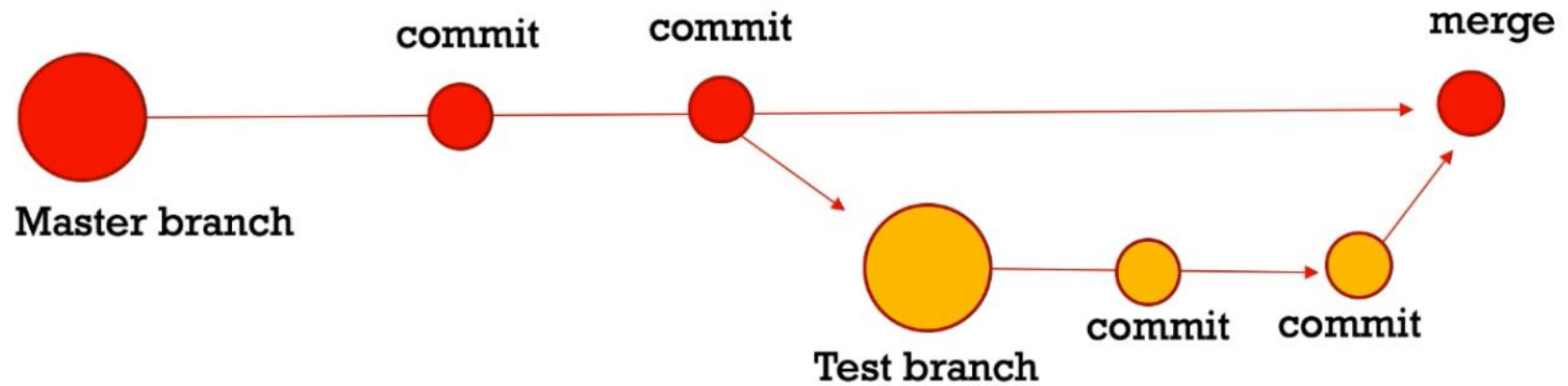
# GitHub 구조 이해



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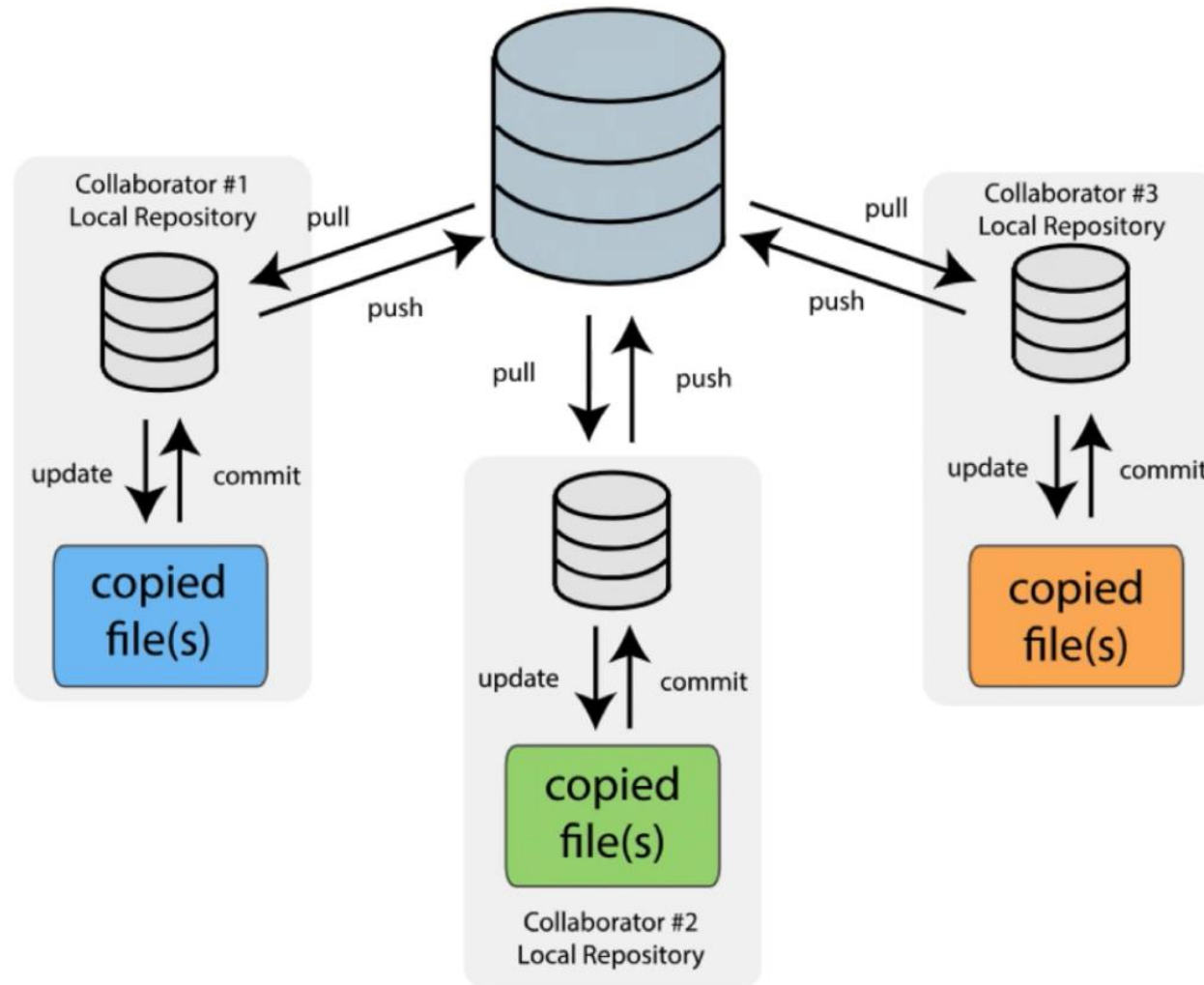
Repository 생성



# GitHub 구조 이해

## Distributed Version Control

Main Server Repository



# GitHub 명령어

명령어	설명
Clone	Remote repository의 내용을 복제한다.
Push	Remote repository로 보낸다.
Pull	Remote repository에 있는 내용을 가져온다.
Fetch	Remote repository에서 변경 내용 가져오기




# GitHub – Repository 생성

## Create a new repository

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

Owner


 lormadus ▾


/

Repository name \*

Great repository names are short and memorable. Need inspiration? How about **cautious-sniffle**?


Description (optional)

☒  **Public**  
Anyone can see this repository. You choose who can commit.

☐  **Private**  
You choose who can see and commit to this repository.

☐ **Initialize this repository with a README**  
This will let you immediately clone the repository to your computer. Skip this step if you're importing an existing repository.

Add .gitignore: None ▾

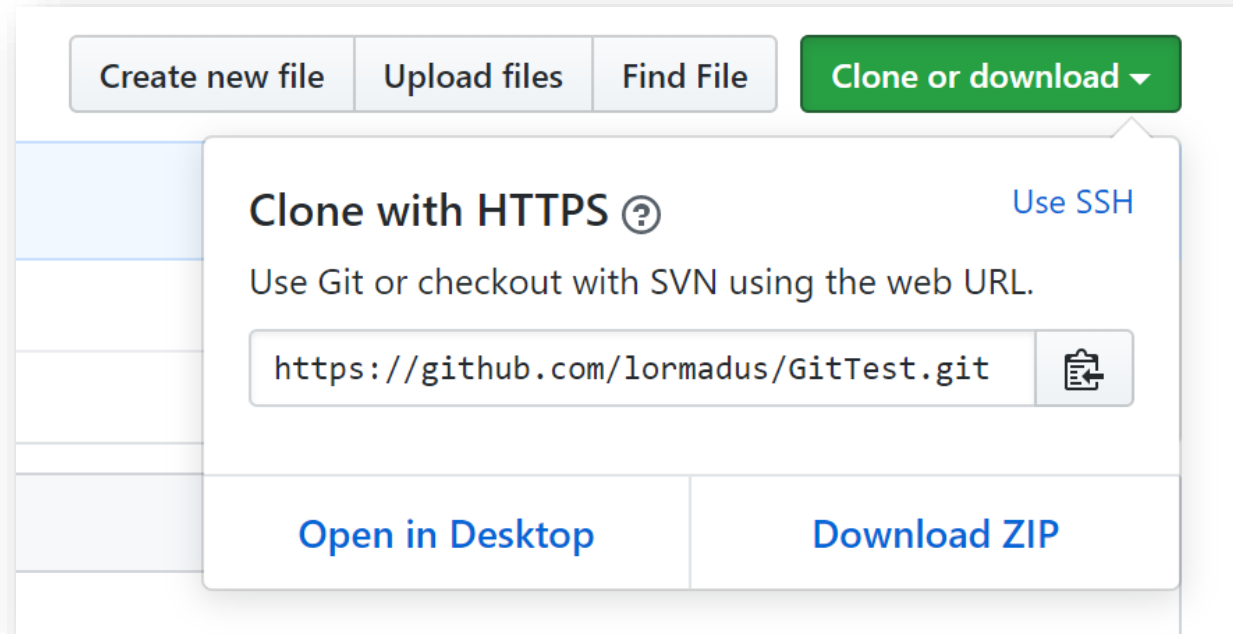
Add a license: None ▾ 

Create repository

- Repository 이름 설정
- Public 으로 오픈할지  
내부적으로만 사용할지 선택
- README 파일 생성 선택
- 개발툴에서 생성되는 파일  
이외 생성되는 파일들 무시

# GitHub – 로컬에 소스 복사

Repository URL을 통해 로컬에 소스 코드 복사



```
[root@DESKTOP-H7G6RS0 ~]$ git clone https://github.com/lormadus/GitTest.git
Cloning into 'GitTest'...
remote: Enumerating objects: 3, done.
remote: Counting objects: 100% (3/3), done.
remote: Total 3 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
```



# GitHub – 로컬에서 파일 생성

- 로컬에서 파일 추가/수정 후 "git add" 명령으로 Local Repository에 변경사항 반영

```
[root@DESKTOP-H7G6RS0 GitTest]$ vi TEST.txt
[root@DESKTOP-H7G6RS0 GitTest]$ git add *
[root@DESKTOP-H7G6RS0 GitTest]$ git status

On branch master
Your branch is up to date with 'origin/master'.

Changes to be committed:
  (use "git reset HEAD <file>..." to unstage)

    new file:   TEST.txt
```

# GitHub – 변경사항 승인

- “git commit” 명령어를 통해 변경된 부분 승인

```
[root@DESKTOP-H7G6RS0 GitTest]$ git commit -m "Added Test.txt"  
[master 46ca1f1] Added Test.txt
```

# GitHub – Repository에 업로드

- Push 명령어를 통해 GitHub에 로컬에서 생성된 파일 업로드
- 업로드 시에 GitHub계정 정보 입력

```
[root@DESKTOP-H7G6RS0 GitTest]$ git push
Username for 'https://github.com': david.hyeshik@yahoo.com
Password for 'https://david.hyeshik@yahoo.com@github.com':
Counting objects: 3, done.
Delta compression using up to 8 threads.
Compressing objects: 100% (2/2), done.
Writing objects: 100% (3/3), 310 bytes | 310.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/lormadus/GitTest.git
  91ddda6..46ca1f1  master -> master
```

# GitHub – Repository에 업로드

- 로컬에서 생성한 파일을 웹브라우저없이 CLI에서 GitHub Repository 생성하려면 curl 명령어 사용

```
[root@DESKTOP-H7G6RS0 GitGit]$ curl -u 'lormadus' https://api.github.com/user/repos -d '{"name":"demodemo"}'
Enter host password for user 'lormadus':
{
  "id": 187910895,
  "node_id": "MDEwOlJlcG9zaXRvcnkxODc5MTA4OTU=",
  "name": "demodemo",
  "full_name": "lormadus/demodemo",
  "private": false,
  "owner": {
    "login": "lormadus",
    "id": 14273433,
    "node_id": "MDQ6VXNlcjE0Mjc5NDMz",
    "avatar_url": "https://avatars.githubusercontent.com/u/14273433?v=4",
    "gravatar_id": "",
    "type": "User",
    "site_admin": false
  },
  "url": "https://api.github.com/repos/lormadus/demodemo",
  "html_url": "https://github.com/lormadus/demodemo",
  "description": null,
  "fork": false,
  "source": null,
  "parent": null,
  "permissions": {
    "push": true
  }
}
```

```
[root@DESKTOP-H7G6RS0 demodemo]$ git remote add demodemo https://github.com/lormadus/demodemo.git
[root@DESKTOP-H7G6RS0 demodemo]$ git push -u demodemo master
Username for 'https://github.com': david.hyeshik@yahoo.com
Password for 'https://david.hyeshik@yahoo.com@github.com':
Counting objects: 3, done.
Writing objects: 100% (3/3), 216 bytes | 216.00 KiB/s, done.
Total 3 (delta 0), reused 0 (delta 0)
To https://github.com/lormadus/demodemo.git
 * [new branch]      master -> master
Branch 'master' set up to track remote branch 'master' from 'demodemo'.
```

# GitHub – 변경 사항 확인

- GitHub에서 추가된 파일 및 Comment 확인

