



git bash를 이용한 협업
(하나의 remote를 여러 명이 공유하기)

Git 기본 명령

1. `git init`
local repository로 만들기 위해서 `.git` 숨김 폴더를 생성한다. `.git` 폴더가 있어야 `git`이 추적한다.
2. `git add`
변경된 내용을 staging 영역으로 옮긴다.
3. `git commit`
staging 영역의 내용을 local repository의 내용으로 확정한다.
4. `git push`
local repository의 내용을 remote repository로 올린다.
5. `git pull`
remote repository의 내용을 local repository로 내려 받는다.

Git 기본 명령

6. `git remote add origin` 깃허브주소
깃허브주소를 remote repository(원격 저장소)로 등록한다.
7. `git clone` 깃허브주소
.git 디렉터리를 포함해서 remote repository의 내용을 모두 local repository에 복제한다.
8. `git branch` 브랜치명
새로운 브랜치를 만든다.
9. `git checkout` 브랜치명
다른 브랜치로 이동한다.
10. `git merge` 브랜치명
다른 브랜치 내용을 현재 브랜치에 병합한다. 이 때 두 브랜치에서 같은 파일을 동시에 수정하면 충돌(conflict)이 발생하므로 주의한다.

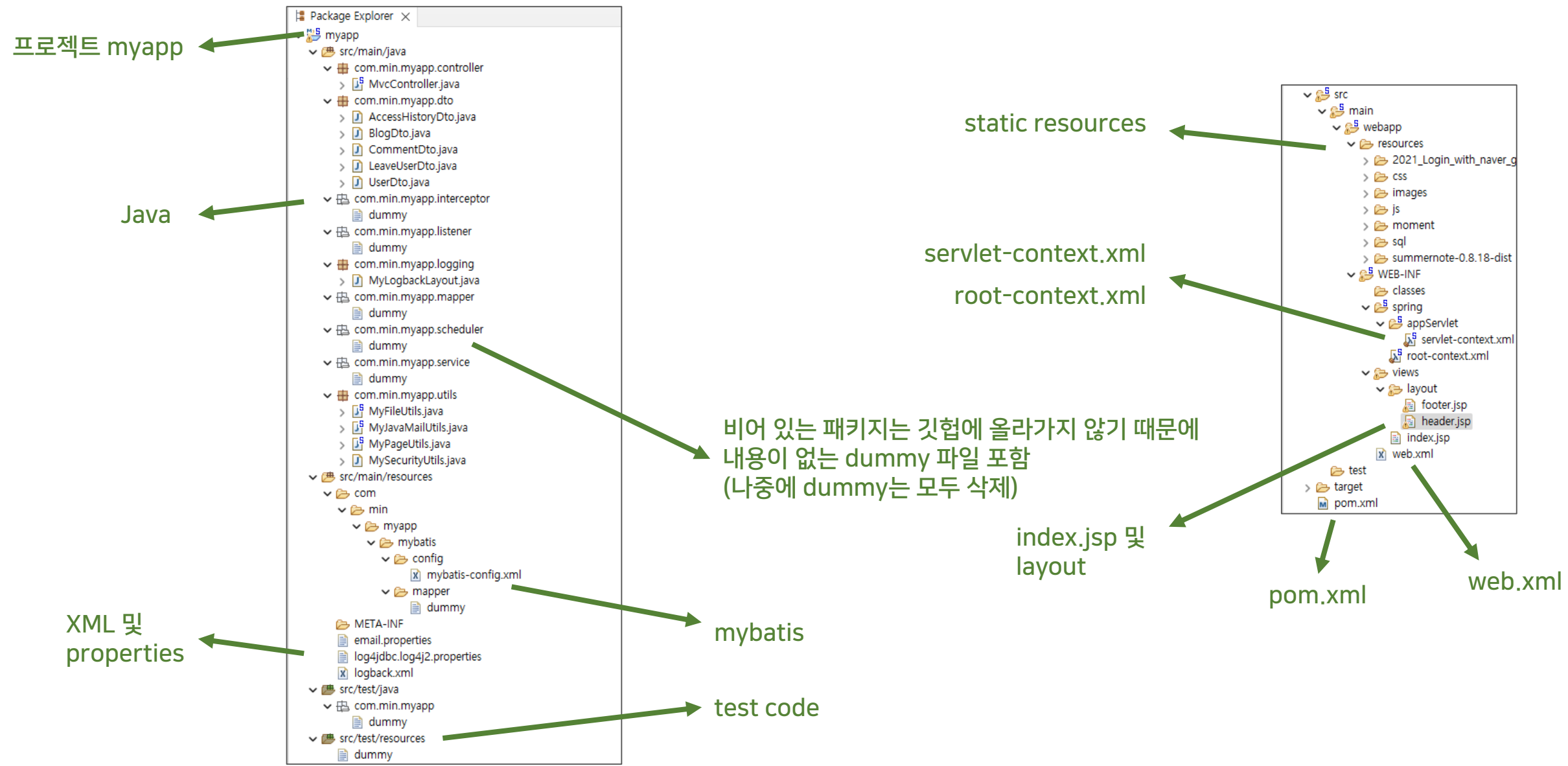
협업 시나리오

1. 2명이 한 팀입니다.
2. 조장이 로컬 레파지토리와 원격 레파지토리를 모두 만듭니다.
3. 조장이 가장 먼저 .gitignore 작업을 처리합니다.
4. 조장이 프로젝트를 만들고 기본 세팅을 처리한 뒤 github에 올립니다.
5. 조원은 github에 올라간 프로젝트를 자신의 PC로 복제합니다.
6. 조원은 github에 올라가지 않은 파일이 있는 경우 직접 생성합니다.
7. 팀원들은 각자 로컬에 개발 브랜치를 생성한 뒤 해당 브랜치에서 기능을 구현합니다.
8. 팀원들은 기능 구현을 마치면 로컬의 개발 브랜치를 master 브랜치에 병합한 뒤 github에 올립니다.
9. 다른 조원들은 github에 올라간 master 브랜치를 자신의 master 브랜치로 가지고 옵니다.
10. 가져온 master 브랜치를 개발 브랜치에 병합한 뒤 기능 구현을 계속합니다.

Part 1

조장 (myapp-leader)

myapp-leader : myapp 프로젝트 만들기



myapp-leader : .gitignore 만들기



gitignore.io
자신의 프로젝트에 꼭 맞는 .gitignore 파일을 만드세요

Windows X Eclipse X Java X Maven X

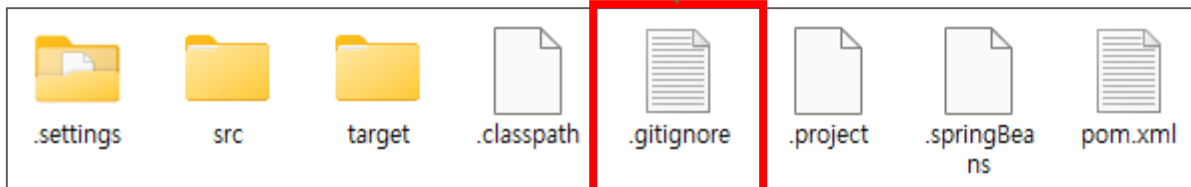
생성

4가지 항목을 입력한 뒤 생성

필요한 내용 편집

```
# custom  
email.properties
```

```
### Eclipse ###  
.metadata  
bin/  
tmp/  
*.tmp  
*.bak  
*.swp  
*~.nib  
local.properties  
.settings/  
.loadpath  
.recommenders
```



프로젝트 내부에 배치

myapp-leader : remote repository 만들기


Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere?

[Import a repository.](#)

Required fields are marked with an asterisk ().*

Owner *

 myapp-leader ▾

Repository name *

/ myapp

✔ myapp is available.

Great repository names are short and memorable. Need inspiration? How about [legendary-broccoli](#) ?

Description (optional)

myapp-leader : local repository 만들기

```
# local repository 만들기
```

```
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp
```

```
$ git init
```

```
# remote repository 등록하기
```

```
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (master)
```

```
$ git remote add origin https://github.com/myapp-leader/myapp.git
```

myapp-leader : push / .gitignore to master branch

```
# add
```

```
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (master)
```

```
$ git add .gitignore
```

```
# commit
```

```
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (master)
```

```
$ git commit -m 'Create .gitignore'
```

```
# push
```

```
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (master)
```

```
$ git push origin master
```

myapp-leader : remote repository에서 .gitignore 확인

The screenshot shows the GitHub interface for a repository named 'myapp-leader' under the user 'myapp'. The repository is public and has 1 branch (master) and 0 tags. The main content area shows a file named '.gitignore' with a 'Create .gitignore' button. Below this, there is a section for 'Add a README' with a green button labeled 'Add a README'. The right sidebar contains information about the repository: 'About' (No description, website, or topics provided), 'Activity' (0 stars, 1 watching, 0 forks), 'Releases' (No releases published, [Create a new release](#)), and 'Packages' (No packages published, [Publish your first package](#)).

myapp Public

Pin Unwatch 1 Fork 0 Star 0

master 1 Branch 0 Tags

Go to file t Add file <> Code

myapp-leader Create .gitignore 7f9f74a · now 1 Commits

.gitignore Create .gitignore now

README

Add a README

Help people interested in this repository understand your project by adding a README.

Add a README

About

No description, website, or topics provided.

Activity

0 stars

1 watching

0 forks

Releases

No releases published

[Create a new release](#)

Packages

No packages published

[Publish your first package](#)

myapp-leader : push / myapp project to master branch

```
# add
```

```
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (master)
```

```
$ git add .
```

```
# commit
```

```
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (master)
```

```
$ git commit -m 'Create myapp'
```

```
# push
```

```
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (master)
```

```
$ git push origin master
```

myapp-leader : remote repository에서 myapp project 확인

The screenshot shows the GitHub interface for a repository named 'myapp-leader' under the user 'myapp'. The repository is public and has 1 branch (master) and 0 tags. It contains three files: 'src', '.gitignore', and 'pom.xml', all created by 'myapp-leader'. The repository has 2 commits. The 'About' section is empty. The 'Releases' section shows no releases published. The 'Packages' section shows no packages published. The 'Suggested workflows' section is based on the tech stack. A large green button 'Add a README' is prominently displayed in the center of the page.

myapp Public

Pin Unwatch 1 Fork 0 Star 0

master 1 Branch 0 Tags

Go to file Add file <> Code

myapp-leader Create myapp 8a7c018 · now 2 Commits

src	Create myapp	now
.gitignore	Create .gitignore	5 minutes ago
pom.xml	Create myapp	now

README

Add a README

Help people interested in this repository understand your project by adding a README.

Add a README

About

No description, website, or topics provided.

Activity

0 stars

1 watching

0 forks

Releases

No releases published

[Create a new release](#)

Packages

No packages published

[Publish your first package](#)

Suggested workflows

Based on your tech stack

myapp-leader : Collaborators 등록

The screenshot shows the GitHub repository settings page for 'myapp-leader / myapp'. The breadcrumb 'myapp-leader / myapp' is highlighted with a red box. The 'Settings' tab in the top navigation bar is also highlighted with a red box. In the left sidebar, the 'Collaborators (협력자)' tab is selected and highlighted with a red box. The main content area is divided into 'Who has access' and 'Manage access' sections. The 'Who has access' section shows 'PUBLIC REPOSITORY' and 'DIRECT ACCESS' options. The 'Manage access' section displays a message 'You haven't invited any collaborators yet' and a green 'Add people' button, which is highlighted with a red box.

myapp-leader / myapp

Issues Pull requests Actions Projects Wiki Security Insights Settings

General

Access

Collaborators

Moderation options

Code and automation

Branches

Tags

Rules

Actions

Webhooks

Environments

Codespaces

Pages

Security

Code security and analysis

Who has access

PUBLIC REPOSITORY

This repository is public and visible to anyone.

Manage

DIRECT ACCESS

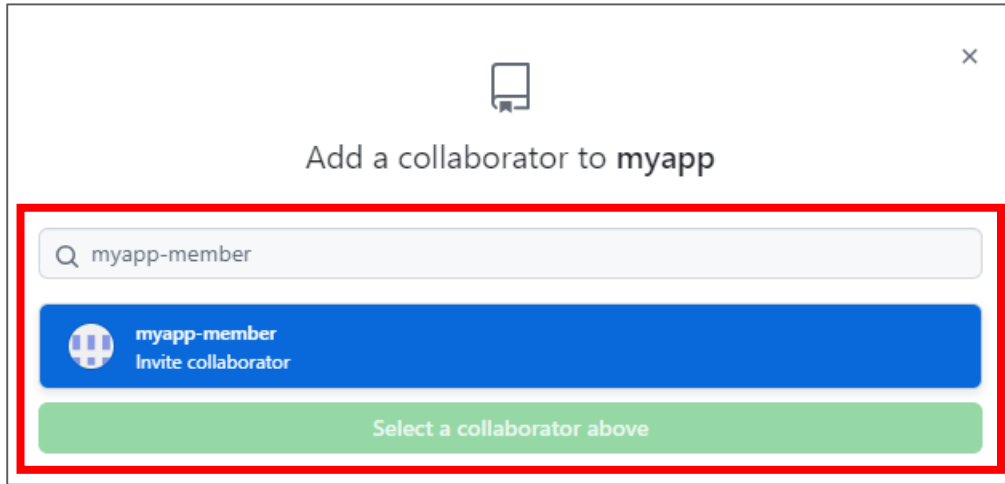
0 collaborators have access to this repository. Only you can contribute to this repository.

Manage access

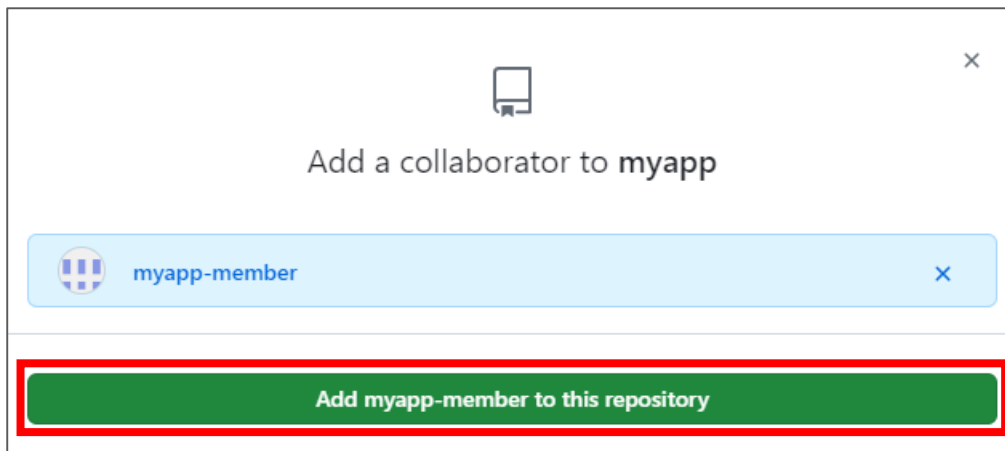
You haven't invited any collaborators yet

Add people

myapp-leader : Collaborators 등록





조원을 검색하여 Collaborator(협력자)로 초대하기



myapp-leader : Collaborator 등록

Manage access Add people


☐ Select all Type ▾

<input type="checkbox"/>	 myapp-member Awaiting myapp-member's response	Pending Invite 	Remove
--------------------------	---	---	---------------------

조원이 초대에 응할 때까지 대기 상태가 됨

Manage access Add people

☐ Select all Type ▾

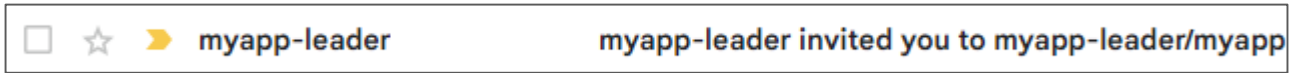
<input type="checkbox"/>	 myapp-member Collaborator		Remove
--------------------------	---	--	---------------------

조원이 초대에 응하면 Collaborator 등록 완료

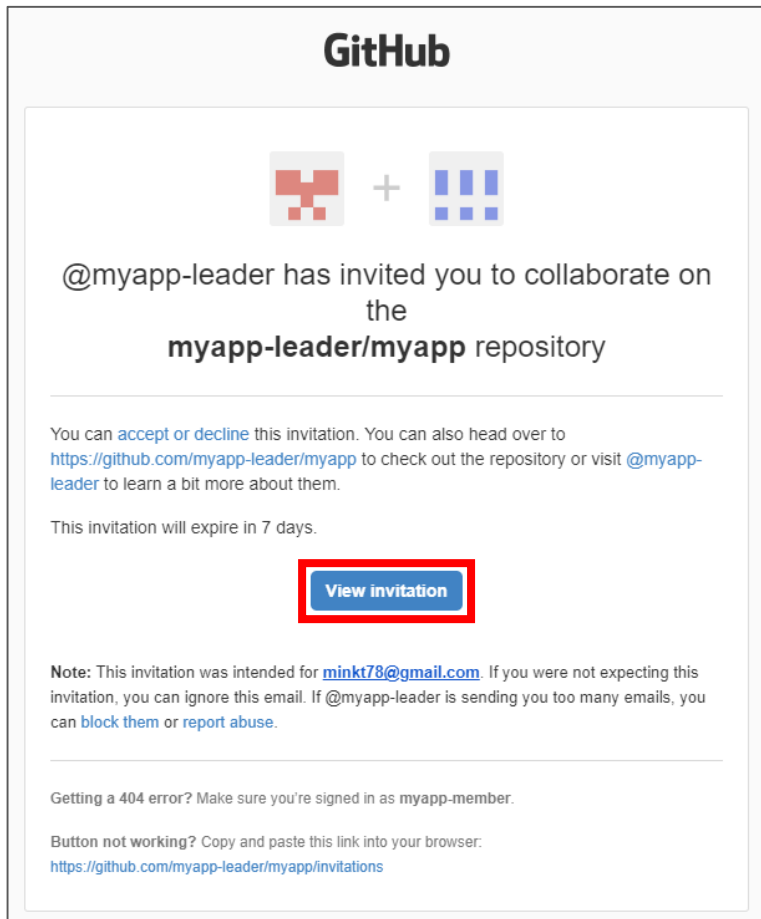
Part 2

조원 (myapp-member)

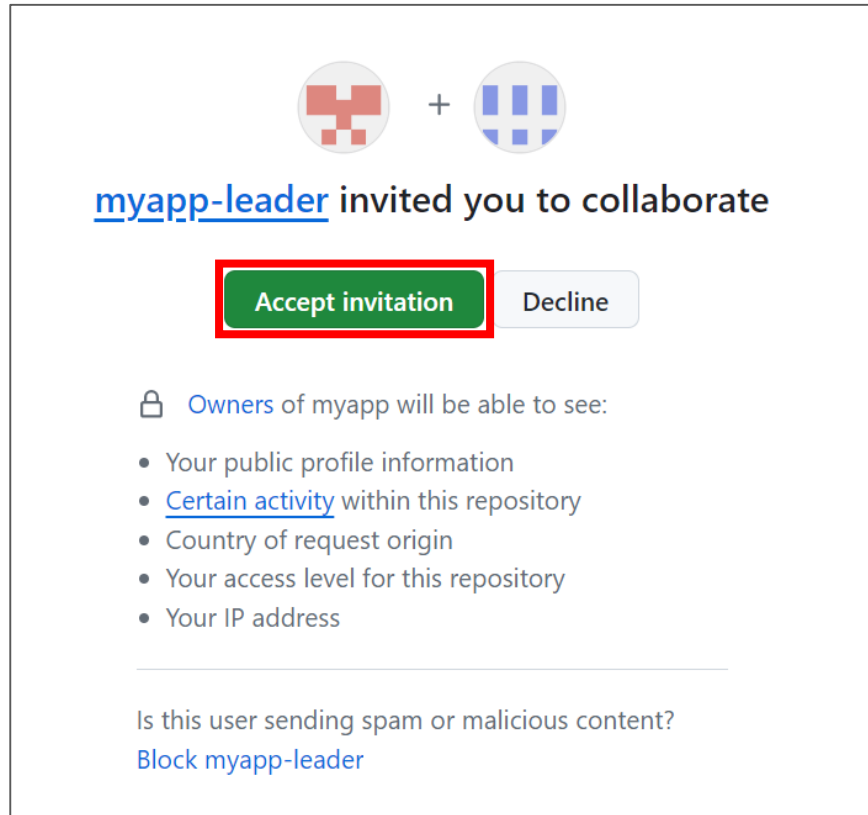
myapp-member : Collatorator 초대 응하기



메일함 확인



myapp-member : Collatorator 초대 응하기



myapp-member : remote repository 주소 복사

The screenshot shows the GitHub interface for the repository 'myapp' by user 'myapp-leader'. The repository is public and has 1 branch (master) and 0 tags. The 'Code' button is highlighted with a red box, and the 'Clone' dropdown menu is open, showing the 'HTTPS' URL 'https://github.com/myapp-leader/myapp.git' which is also highlighted with a red box. The repository contains files 'src', '.gitignore', and 'pom.xml'. The 'Add a README' button is visible at the bottom of the repository view.

myapp-leader / myapp

<> Code Issues Pull requests Actions Projects Wiki Security Insights

You now have push access to the myapp-leader/myapp repository.

myapp Public

Watch 1 Fork 0 Star 0

master 1 Branch 0 Tags

Go to file

Add file <> Code

myapp-leader Create myapp

src Create myapp

.gitignore Create .gitignore

pom.xml Create myapp

README

Add a README

Help people interested in this repository understand your project by adding a README.

Add a README

About

No description, website, or topics provided.

Activity

0 stars

1 watching

0 forks

Report repository

Releases

No releases published

Create a new release

Packages

No packages published

Publish your first package

Languages

JavaScript 98.4% Java 1.1% Other 0.5%

myapp-member : clone

clone

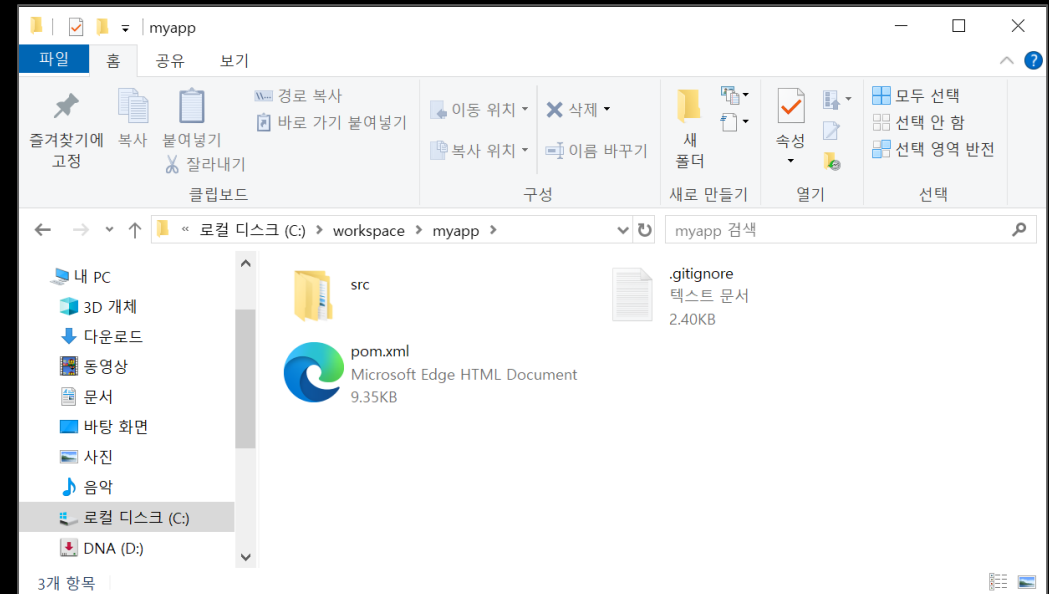
User@DESKTOP-MEMBER MINGW64 /c/workspace

\$ git clone https://github.com/myapp-leader/myapp.git

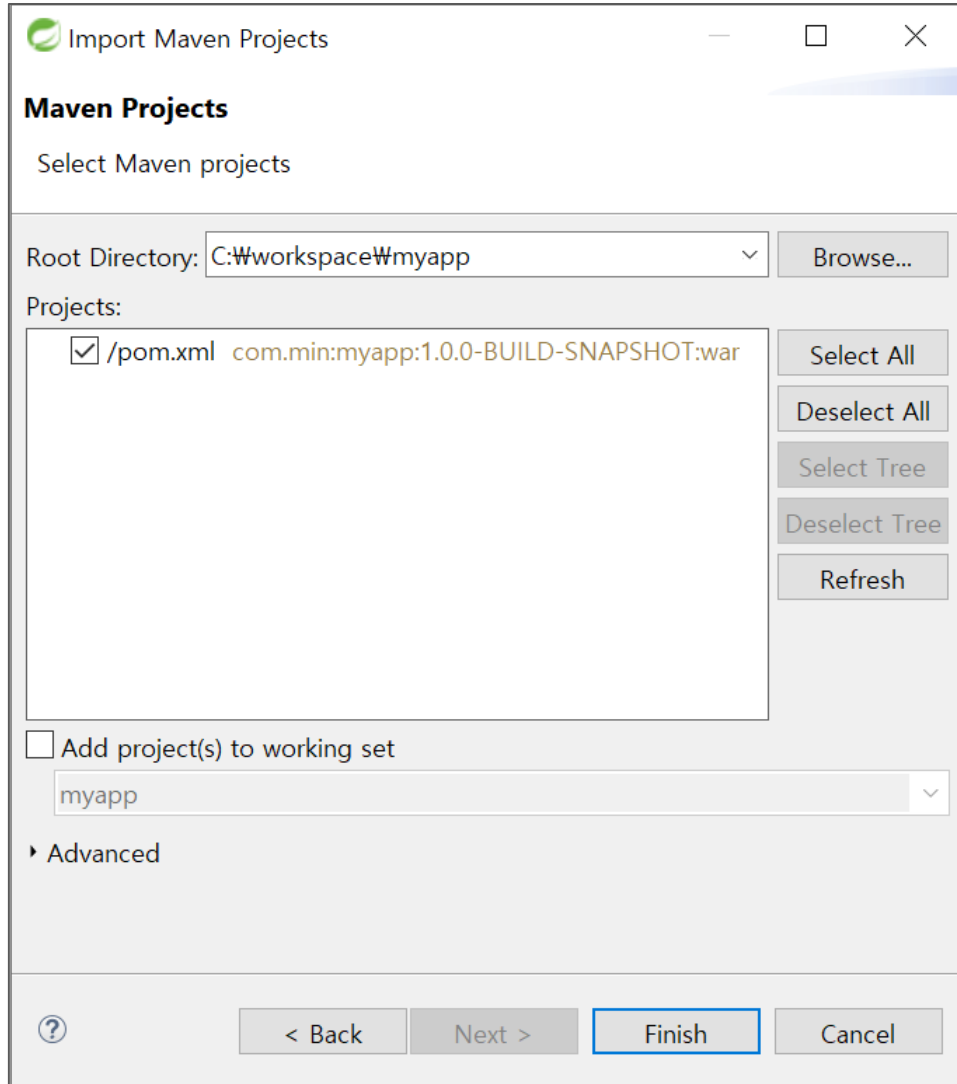
복제된 레파지토리 확인

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (master)

\$ cd myapp

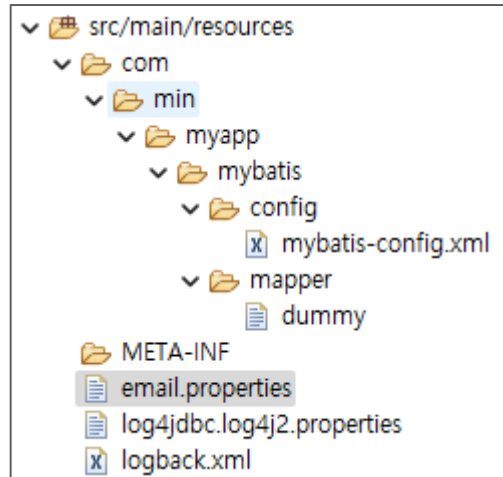


myapp-member : import myapp project



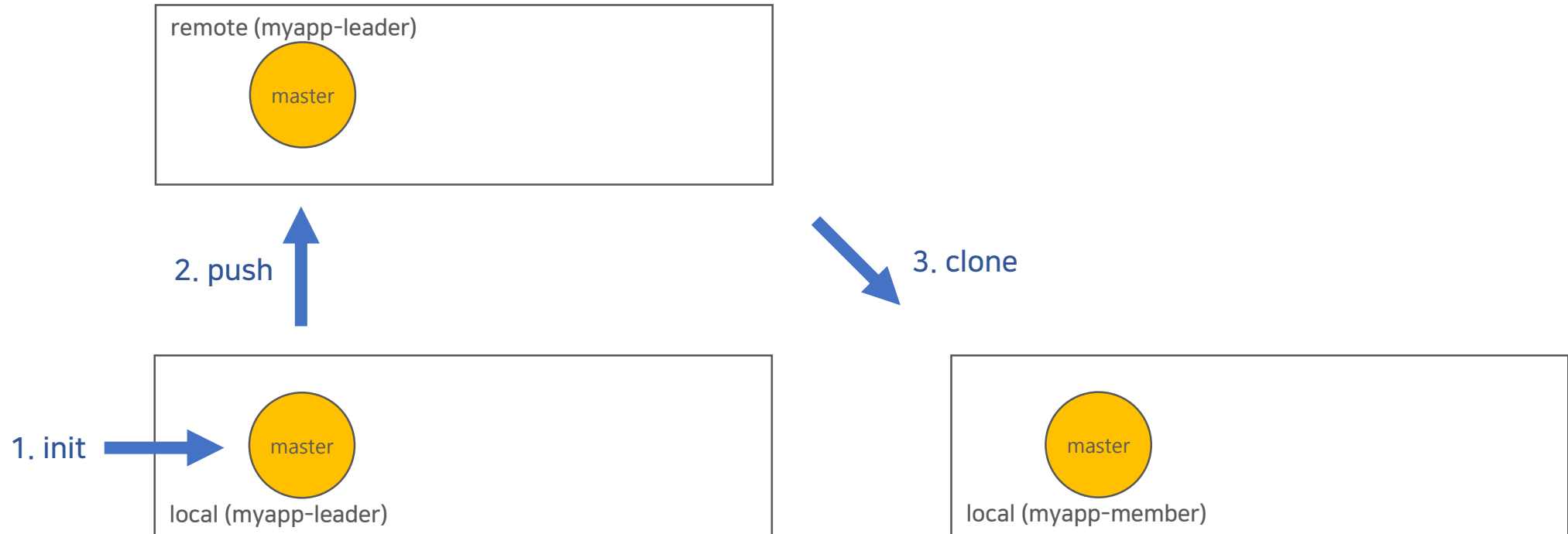
import
- Maven
- Existing Maven Projects

myapp-member : .gitignore 대상 파일 직접 생성



email.properties 처럼 github에 올리지 않은 파일이 있으면 직접 생성하기

지금까지 진행 상황 1



Part 3

조장 (myapp-leader) / 조원 (myapp-member) 기능 구현

myapp-leader : devuser branch 생성 및 이동

branch 만들기

User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (master)

\$ git branch devuser

branch 이동하기

User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (master)

\$ git checkout devuser

branch 확인 (master + devuser)

User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (devuser)

\$ git branch

* devuser

master

remote (myapp-leader)



local (myapp-leader)

* 참고 옵션

git branch devuser + git checkout devuser

=>

git checkout -b devuser

myapp-leader : 기능 개발

User 기능을 맡은 조장은

UserController.java

UserMapper.java

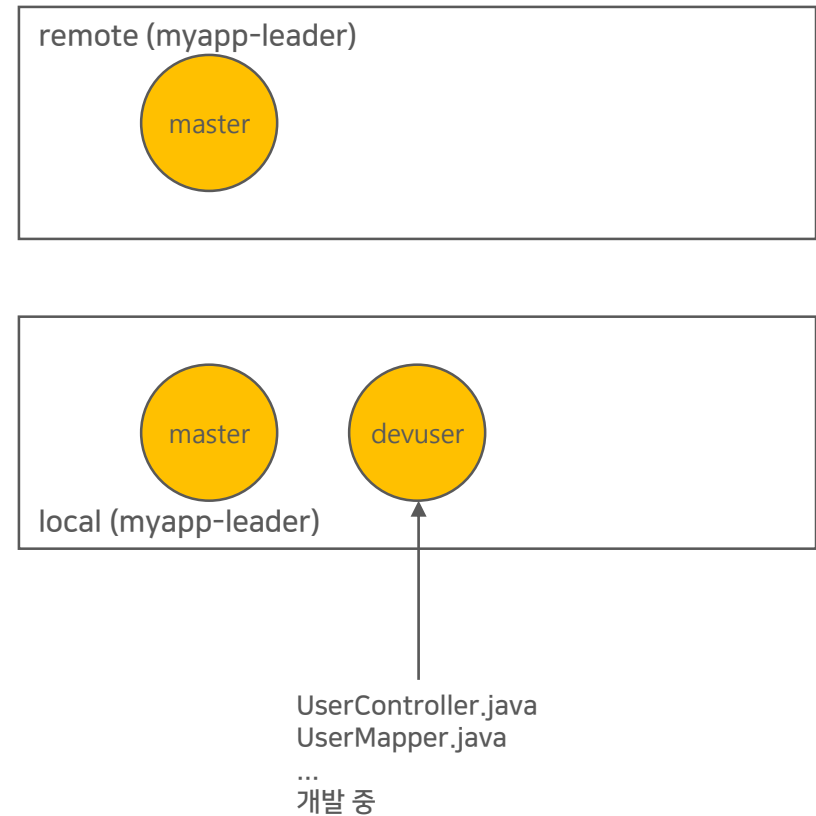
userMapper.xml

UserService.java

UserServiceImpl.java

views/user/signin.jsp

views/user/signout.jsp 등을 **devuser branch**에 만든다.

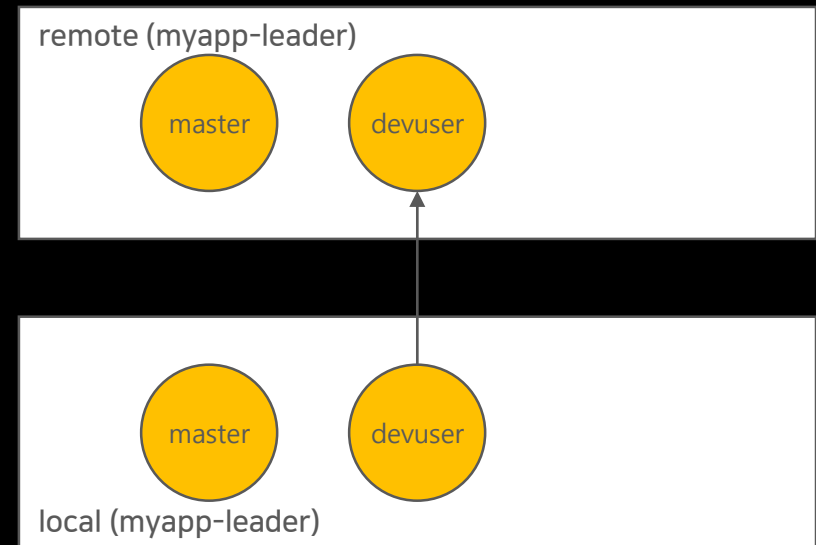


myapp-leader : push / devuser branch

```
# add
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (devuser)
$ git add .

# commit
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (devuser)
$ git commit -m '커밋 메시지'

# push
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (devuser)
$ git push origin devuser
```



기능 구현이 끝날때까지 add / commit / push 만 계속 반복한다.

myapp-member : devblog branch 생성 및 이동

branch 만들고 해당 branch로 이동하기

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (master)

\$ git checkout -b devblog

branch 확인 (master + devblog)

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)

\$ git branch

* devblog

master

remote (myapp-leader)



local (myapp-member)

* 참고 옵션

git branch devblog + git checkout devblog

=>

git checkout -b devblog

myapp-member : 기능 개발

Blog 기능을 맡은 조원은

BlogController.java

BlogMapper.java

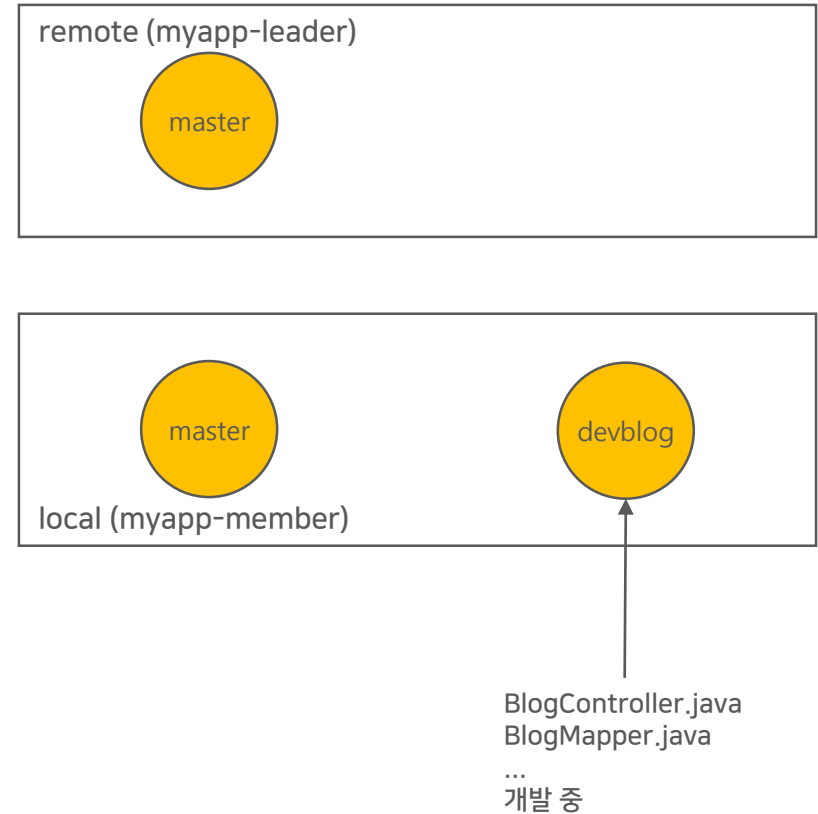
blogMapper.xml

BlogService.java

BlogServiceImpl.java

views/blog/list.jsp

views/blog/detail.jsp 등을 **devblog branch**에 만든다.



myapp-member : push / devblog branch

add

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)

\$ git add .

commit

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)

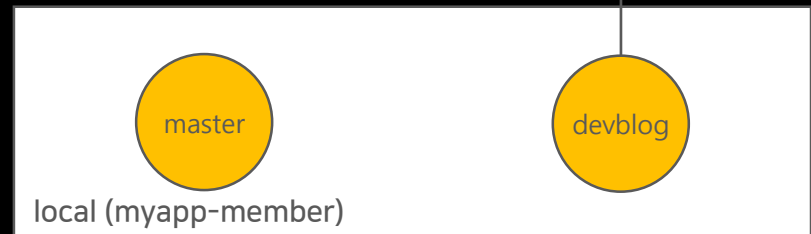
\$ git commit -m '커밋 메시지'

push

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)

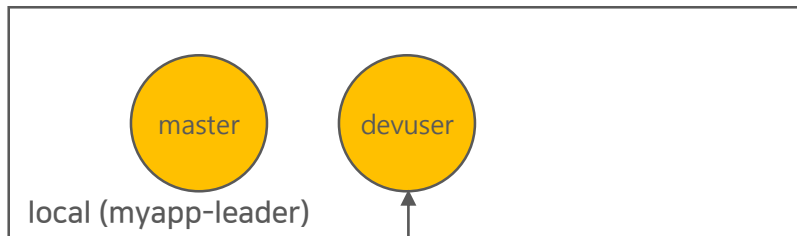
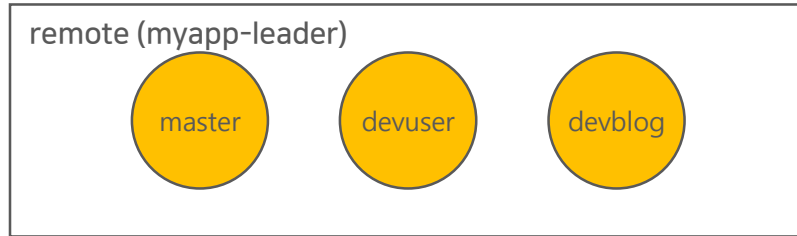
\$ git push origin devblog

remote (myapp-leader)

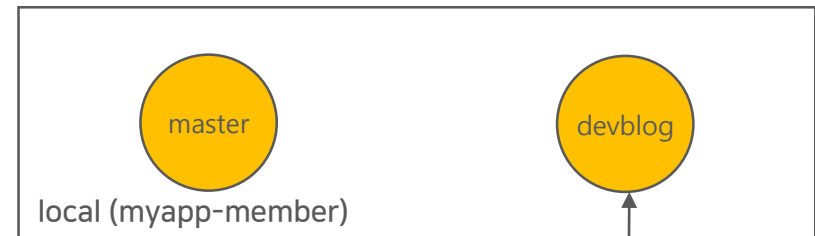


기능 구현이 끝날때까지 add / commit / push 만 계속 반복한다.

지금까지 진행 상황 2



UserController.java
UserMapper.java
...
개발 중



BlogController.java
BlogMapper.java
...
개발 중

Part 4

조장 (myapp-leader) 기능 구현 완료



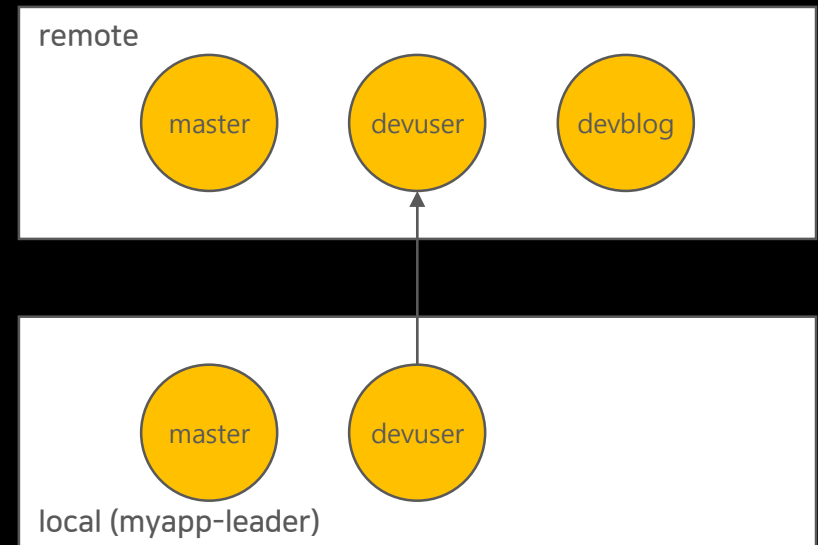
조원 (myapp-member) 내려 받기

myapp-leader : push / devuser branch

```
# add
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (devuser)
$ git add .

# commit
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (devuser)
$ git commit -m 'Complete user'

# push
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (devuser)
$ git push origin devuser
```



myapp-leader의 devuser 기능 구현이 완료된 상황

myapp-leader : merge / devuser branch → master branch

master branch 이동

User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (devuser)

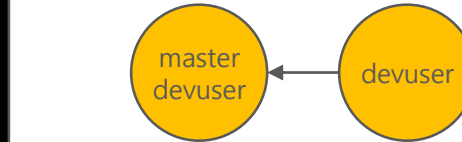
\$ git checkout master

merge

User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (master)

\$ git merge devuser

remote



local (myapp-leader)

myapp-leader : push / master branch

```
# push
```

```
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (master)
```

```
$ git push origin master
```

remote

master
devuser

devuser

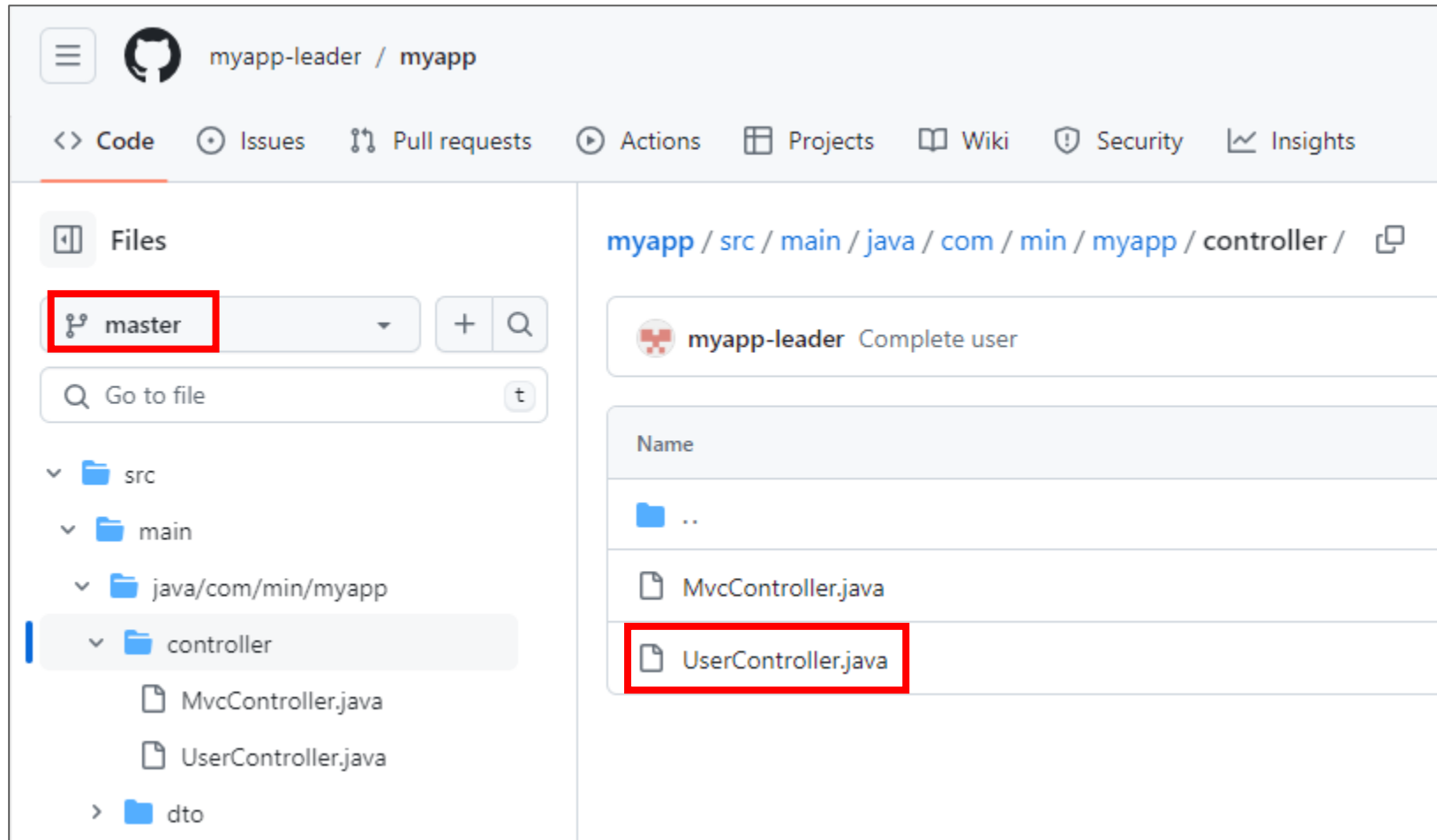
devblog

master
devuser

devuser

local (myapp-leader)

myapp-leader : merge 결과 확인



master branch에 새로 개발한 코드가 포함되어 있다.

myapp-member : pull / master branch

master branch 이동

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)

\$ git checkout master

pull

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (master)

\$ git pull origin master

remote



local (myapp-member)

myapp-member : merge / master branch → devblog branch

devblog branch 이동

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (master)

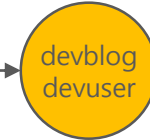
\$ git checkout devblog

merge

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)

\$ git merge master

remote



local (myapp-member)

myapp-member : push / devblog branch

add

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)

\$ git add .

commit

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)

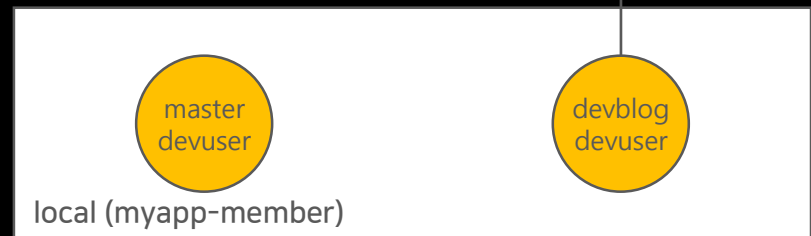
\$ git commit -m '커밋 메시지'

push

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)

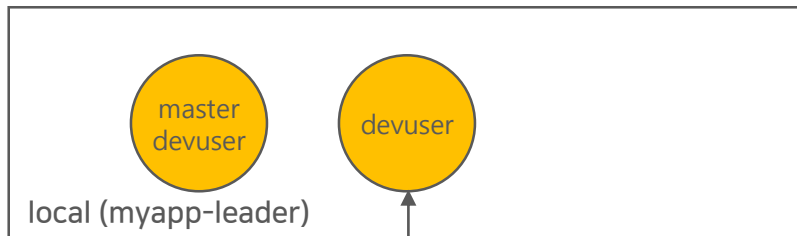
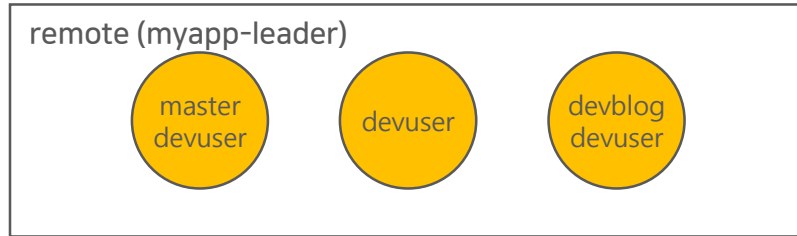
\$ git push origin devblog

remote

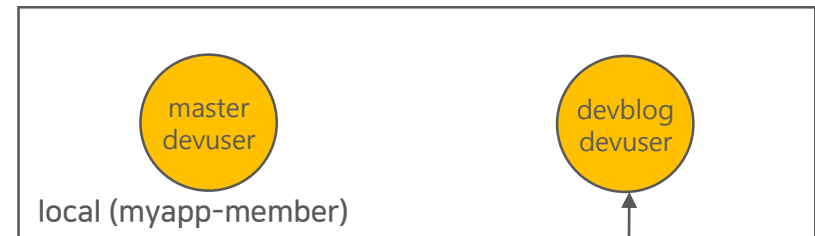


local (myapp-member)

지금까지 진행 상황 3



개발 완료



BlogController.java
BlogMapper.java
...
개발 중

Part 5

조원 (myapp-member) 기능 구현 완료



조장 (myapp-leader) 내려 받기

myapp-member : push / devblog branch

add

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)

\$ git add .

commit

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)

\$ git commit -m 'Complete blog'

push

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)

\$ git push origin devblog

remote



local (myapp-member)



myapp-member의 devblog 기능 구현이 완료된 상황

myapp-member : merge / devblog branch → master branch

master branch 이동

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)

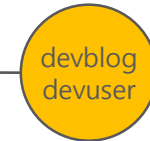
\$ git checkout master

merge

User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (master)

\$ git merge devblog

remote



local (myapp-member)

myapp-member : push / master branch

```
# push
```

```
User@DESKTOP-MEMBER MINGW64 /c/workspace/myapp (devblog)
```

```
$ git push origin master
```

remote

master
devblog
devuser

devuser

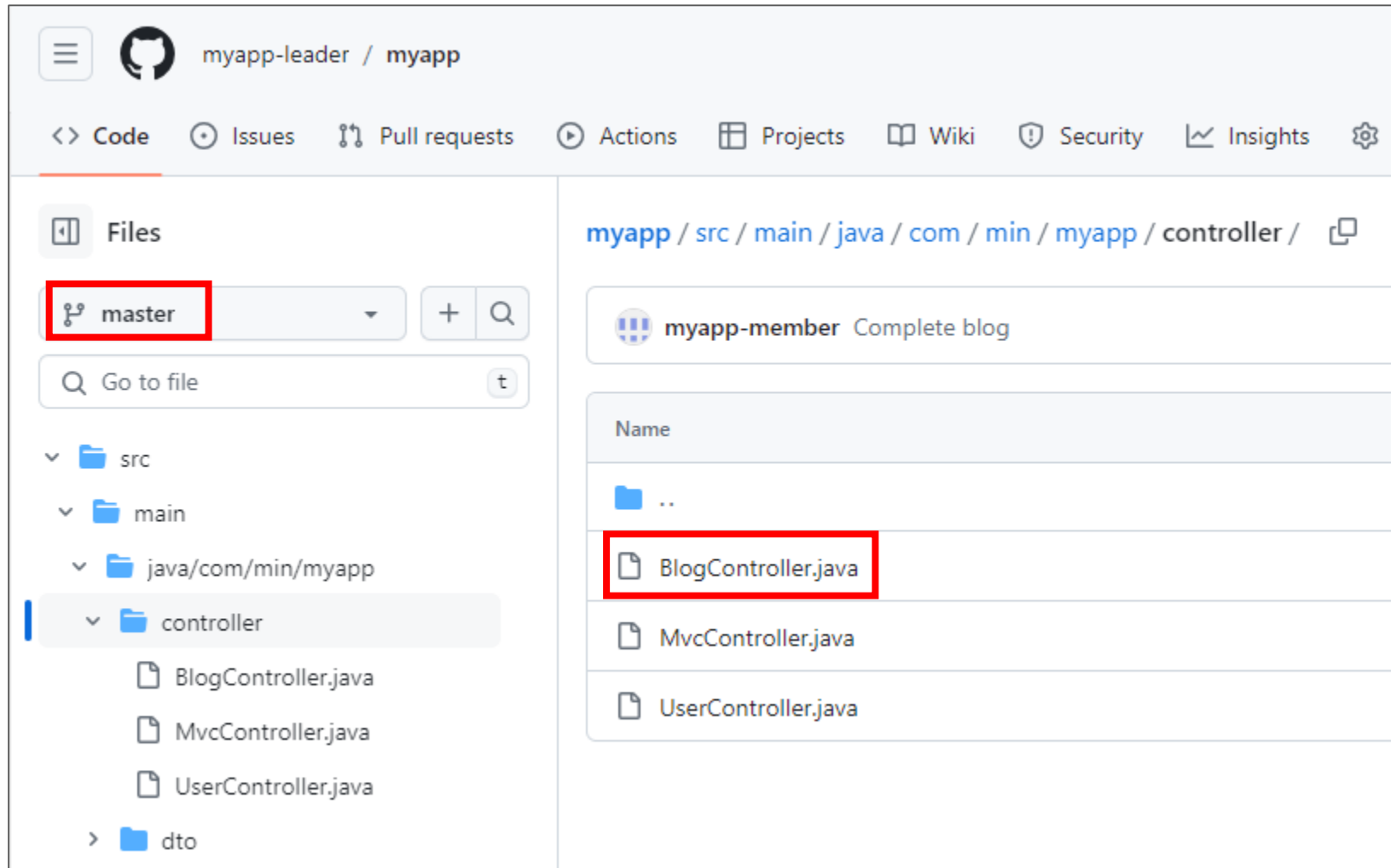
devblog
devuser

local (myapp-member)

master
devblog
devuser

devblog
devuser

myapp-member : merge 결과 확인



master branch에 새로 개발한 코드가 포함되어 있다.

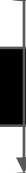
myapp-leader : pull / master branch

```
# pull
```

```
User@DESKTOP-LEADER MINGW64 /c/workspace/myapp (master)
```

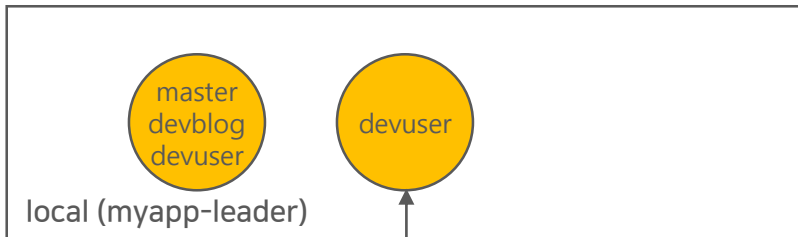
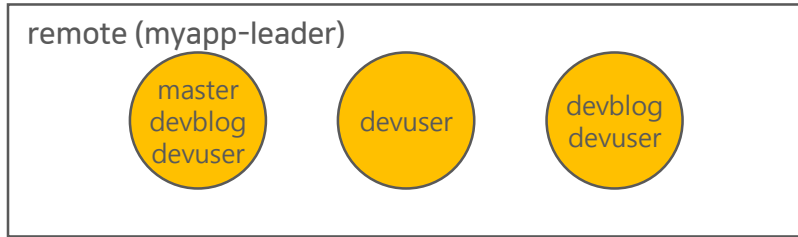
```
$ git pull origin master
```

remote

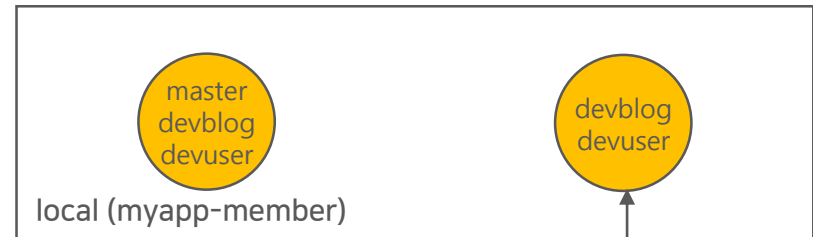


local (myapp-leader)

지금까지 진행 상황 4



개발 완료



개발 완료

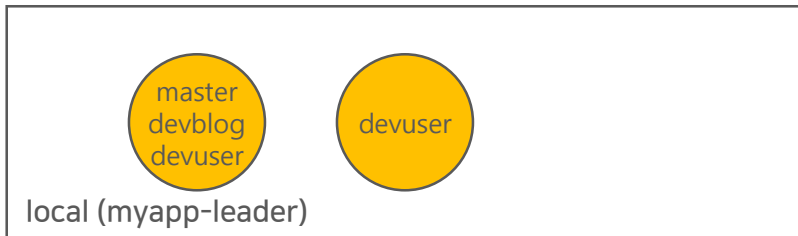
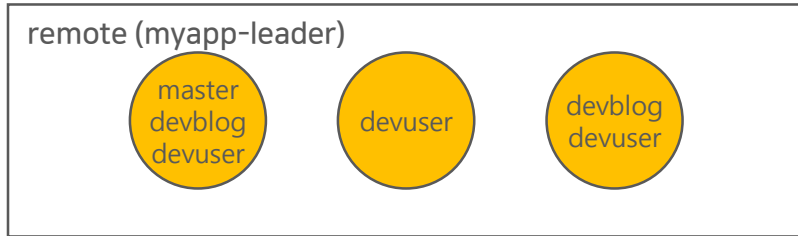
Part 6

조장 (myapp-leader) remote

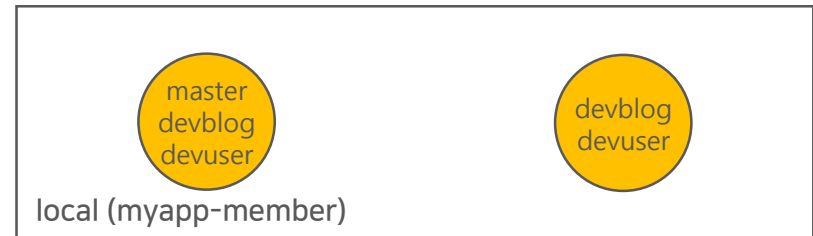


조원 (myapp-member) remote

fork의 필요성



구현이 끝났으니
나도 내 remote를
가지고 싶어요...



* fork : 어떤 원격 레파지토리를 내 원격 레파지토리로 그대로 가져오는 것을 의미한다.

myapp-member : remote fork 하기

The screenshot shows the GitHub interface for the repository 'myapp' owned by 'myapp-leader'. The repository is public and has 3 branches and 0 tags. The main content area displays the repository structure with files like 'src', '.gitignore', and 'pom.xml'. A dropdown menu is open next to the 'Fork' button, showing the option 'Create a new fork' highlighted with a red box. The right sidebar shows repository statistics and links to create a new release or package.

myapp-leader / myapp

Code Issues Pull requests Actions Projects Wiki Security Insights

myapp Public

master 3 Branches 0 Tags

Go to file Add file

myapp-member Complete blog 6b25e58 · 1 hour ago 5 Commits

src Complete blog 1 hour ago

.gitignore Create .gitignore 20 hours ago

pom.xml Create myapp 20 hours ago

README

Add a README

Help people interested in this repository understand your project by adding a README.

Add a README

Existing forks

You don't have any forks of this repository.

+ Create a new fork

Activity

0 stars

1 watching

0 forks

Report repository

Releases

No releases published

Create a new release

Packages

No packages published

Publish your first package

Contributors 2

myapp-leader

myapp-member

myapp-member : remote fork 하기

myapp-leader / myapp

Q Type 7 to search

>-

+ ▾

🕒

🔗

✉

🌐

<> Code Issues Pull requests Actions Projects Wiki Security Insights


Create a new fork

A fork is a copy of a repository. Forking a repository allows you to freely experiment with changes without affecting the original project.

Required fields are marked with an asterisk (*).

Owner *

Repository name *

 myapp-member ▾

/

myapp

✅ myapp is available.

By default, forks are named the same as their upstream repository. You can customize the name to distinguish it further.

Description (optional)

master 브랜치만 가져오기 ☒ Copy the **master** branch only

Contribute back to myapp-leader/myapp by adding your own branch. [Learn more.](#)

📘 You are creating a fork in your personal account.

Create fork

myapp-member : remote fork 하기

The screenshot shows the GitHub interface for a repository named 'myapp-member / myapp'. The repository is public and was forked from 'myapp-leader/myapp'. The main branch is 'master', and there is 1 branch and 0 tags. The repository is up to date with the upstream 'myapp-leader/myapp:master'. The file list includes 'src' (Complete blog, 1 hour ago), '.gitignore' (Create .gitignore, 20 hours ago), and 'pom.xml' (Create myapp, 20 hours ago). The README section prompts the user to 'Add a README'. The right sidebar shows the repository's activity, including 0 stars, 0 watching, and 0 forks. The 'Languages' section shows JavaScript at 94.9%, Java at 4.6%, and Other at 0.5%.

myapp-member / myapp

Public

forked from [myapp-leader/myapp](#)

master 1 Branch 0 Tags

Go to file t Add file <> Code

This branch is up to date with [myapp-leader/myapp:master](#). Contribute Sync fork

myapp-member Complete blog 6b25e58 · 1 hour ago 5 Commits

src	Complete blog	1 hour ago
.gitignore	Create .gitignore	20 hours ago
pom.xml	Create myapp	20 hours ago

README

Add a README

Help people interested in this repository understand your project by adding a README.

Add a README

About

No description, website, or topics provided.

Activity

0 stars

0 watching

0 forks

Releases

No releases published

[Create a new release](#)

Packages

No packages published

[Publish your first package](#)

Languages

JavaScript 94.9% Java 4.6% Other 0.5%

최종 상황

