

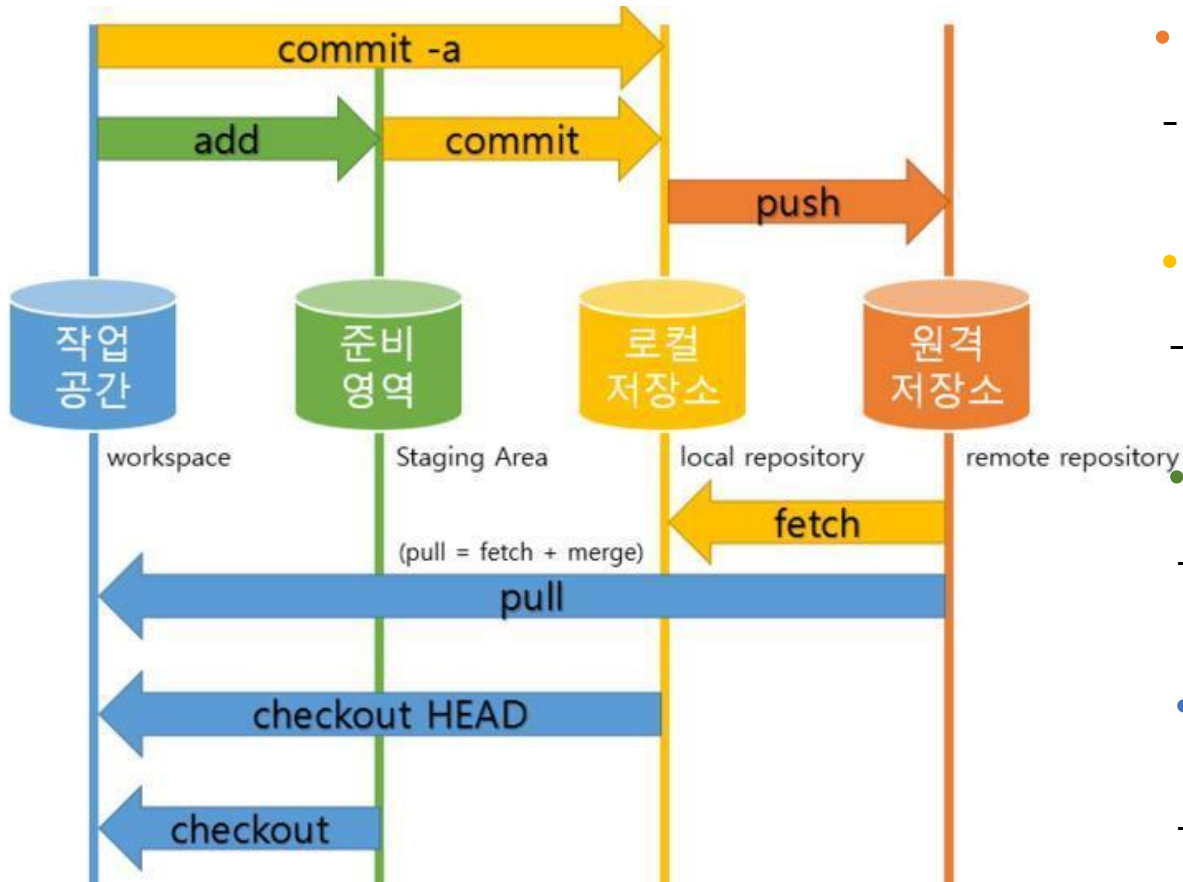
9/27/2019

[추가] GIT 정리

5기 최보경

1

GitHub 로직과 단계 (중요)

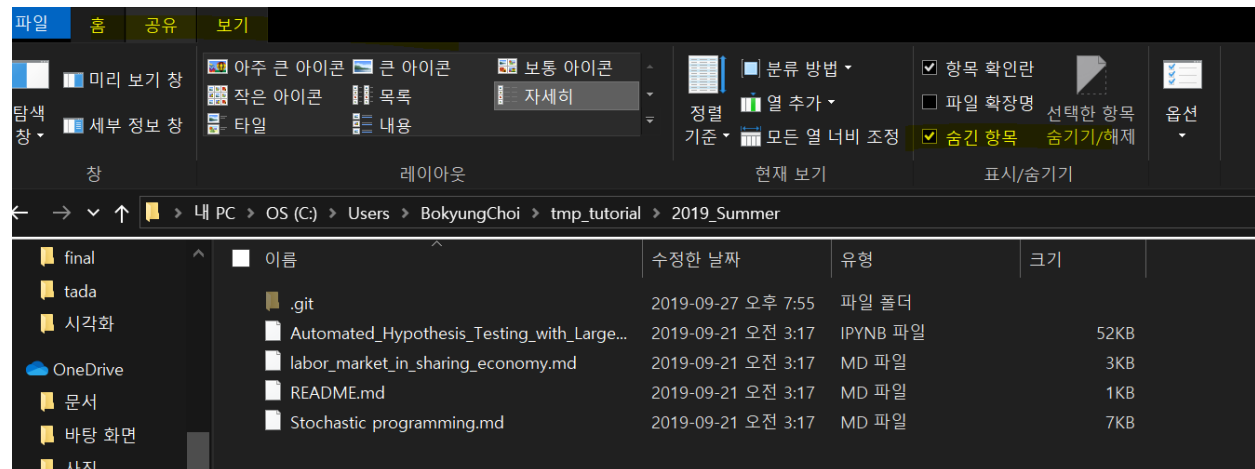
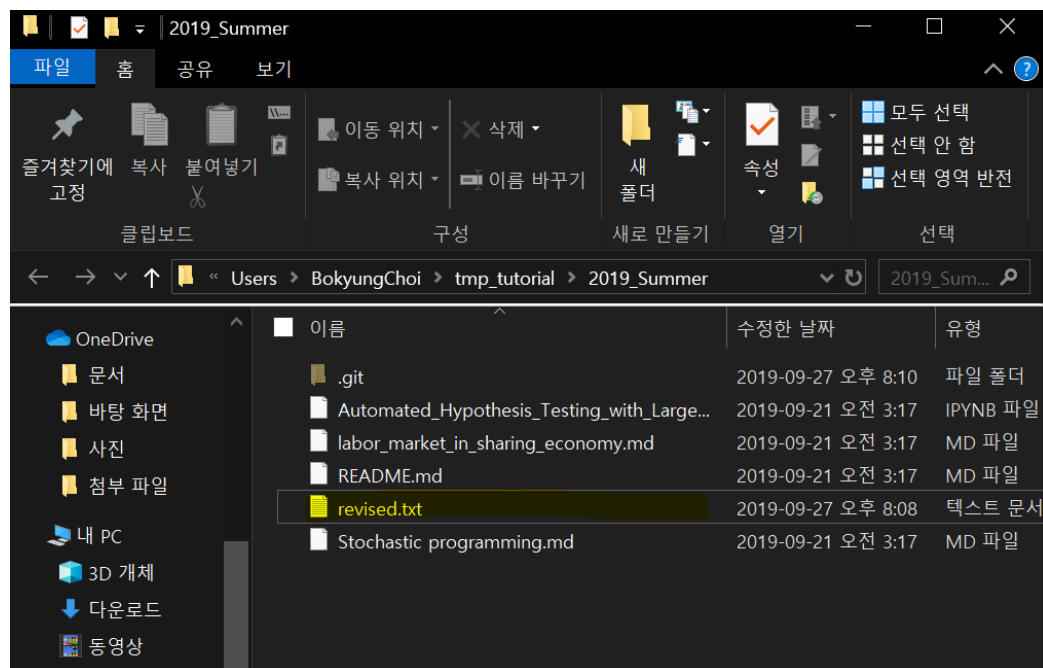


- **원격 저장소 (Remote Repository) - Server**
 - 스냅샷이 2차로 원격 저장소로 저장되고 전용 '서버'에서 관리되며 여러 사람이 함께 접근, 공유할 수 있는 저장소
- **로컬 저장소 (Local Repository) - Local**
 - 스냅샷들이 1차로 개인 Local repository에 저장
- **준비 영역 (Staging Area) - Local**
 - 파일의 스냅샷을 찍어 두고 Repository들에 올리기 전 저장소
- **작업 공간(Workspace, Working Directory) - Local**
 - 개인이 파일을 수정하고 작업하는 곳

1 로컬 저장소를 찾는다

1) 내 로컬에 로컬 저장소로 연결하고 싶은 폴더가 있다. 주소를 복사해온다

- 폴더 안에 저 투명한 (숨겨진 폴더) .git이 존재하면, 이건 이미 init으로 로컬 저장소화된 폴더를 의미함. 숨긴 폴더 보는 방법 (window만) 은 오른쪽 아래와 같다.



2 Git Bash가 working하는 디렉토리를 로컬 저장소로 바꿔준다

```
BokyungChoi@DESKTOP-8D048JC MINGW64 ~  
$ cd /c/Users/BokyungChoi/tmp_tutorial/2019_Summer  
  
BokyungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)  
$ git init  
Reinitialized existing Git repository in C:/Users/BokyungChoi/tmp_tutorial/2019_Summer/.git/
```

이미 로컬 디렉토리라면
Reinitialized

```
BokyungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)  
$ git status  
On branch master  
Your branch is ahead of 'origin/master' by 2 commits.  
  (use "git push" to publish your local commits)  
  
Untracked files:  
  (use "git add <file>..." to include in what will be committed)  
  
    revised.txt.TXT  
  
nothing added to commit but untracked files present (use "git add" to track)
```

3 먼저 전 staging area에 남아있는 캐시를 지우고 시작한다

일단 staging area 에 남아있는 cache 지워두기 `git rm -r --cached .`

When you think your git is messed up, you can use this command to do everything up-to-date.

```
git rm -r --cached .  
git add .  
git commit -am 'git cache cleared'  
git push
```

```
BokyungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)  
$ git rm -r --cached .  
rm 'Automated_Hypothesis_Testing_with_Large_Dataframe.ipynb'  
rm 'README.md'  
rm 'Stochastic programming.md'  
rm 'labor_market_in_sharing_economy.md'
```

4 캐시 지우고 git status 본다

일단 staging area 에 남아있는 cache 지워두고 git status로 보면 이러함

```
BokyoungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git status
On branch master
Your branch is ahead of 'origin/master' by 2 commits.
(use "git push" to publish your local commits)

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

        deleted:    Automated_Hypothesis_Testing_with_Large_Dataframe.ipynb
        deleted:    README.md
        deleted:    Stochastic_programming.md
        deleted:    labor_market_in_sharing_economy.md

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        Automated_Hypothesis_Testing_with_Large_Dataframe.ipynb
        README.md
        Stochastic_programming.md
        labor_market_in_sharing_economy.md
        revised.txt.TXT

BokyoungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git rm -r --cached .
fatal: pathspec '.' did not match any files
```

5 폴더 안에 있는 파일들 add 하고 commit 한다

그 다음 절차 2단계

```
BokyungChoi@DESKTOP-8DO48JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git add .

BokyungChoi@DESKTOP-8DO48JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git commit -am 'git cached cleared'
[master 57ede41] git cached cleared
1 file changed, 0 insertions(+), 0 deletions(-)
create mode 100644 revised.txt.TXT
```

6 혹시 commit 잘못했으면 되돌려 add 해둔 상태로 돌아온다

잘못 commit했지만 push는 아직 하지 않은, 로컬 저장소에 저장된 커밋 되돌리기

Delete the most recent commit, keeping the work you've done:

```
git reset --soft HEAD~1
```

Delete the most recent commit, **destroying the work** you've done:

```
git reset --hard HEAD~1
```

```
BokyoungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git status
On branch master
Your branch is ahead of 'origin/master' by 3 commits.
(use "git push" to publish your local commits)

nothing to commit, working tree clean

BokyoungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git reset --soft HEAD~1

BokyoungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git status
On branch master
Your branch is ahead of 'origin/master' by 2 commits.
(use "git push" to publish your local commits)

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

        new file:   revised.txt.TXT
```


7 remote 브랜치 뭐 있는지 확인한다

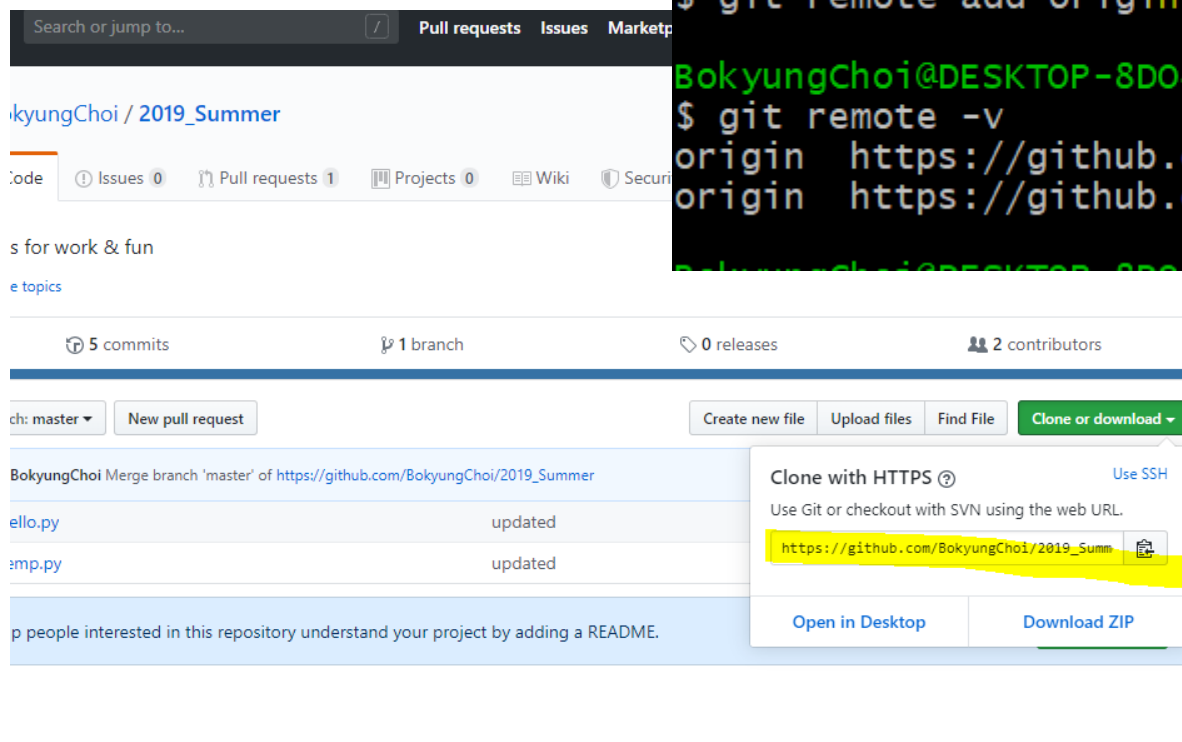
지금 현존하는 브랜치 확인, 혹시 마음에 안드는 remote branch가 있다면 헛갈리니까 지워둔다

```
$ git remote -v
# View current remotes
> origin https://github.com/OWNER/REPOSITORY.git (fetch)
> origin https://github.com/OWNER/REPOSITORY.git (push)
> destination https://github.com/FORKER/REPOSITORY.git (fetch)
> destination https://github.com/FORKER/REPOSITORY.git (push)

$ git remote rm destination
# Remove remote
$ git remote -v
# Verify it's gone
> origin https://github.com/OWNER/REPOSITORY.git (fetch)
> origin https://github.com/OWNER/REPOSITORY.git (push)
```

Note: `git remote rm` does not delete the remote repository from the server. It simply removes the remote and its references from your local repository.

8 올리고 싶은 원격 저장소로 remote branch 만들자



```
BokyungChoi@DESKTOP-8DO48JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git remote add origin https://github.com/BokyungChoi/2019_Summer.git

BokyungChoi@DESKTOP-8DO48JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git remote -v
origin https://github.com/BokyungChoi/2019_Summer.git (fetch)
origin https://github.com/BokyungChoi/2019_Summer.git (push)
```

깃헙에 저 2019_Summer 레포지토리를 origin이라는 별명으로 저장해두었다는 의미

9 일단 원격 저장소의 파일들 받아오자

Git pull origin master 를 했는데, 오류가 날 때는 이것 활용

```
BokyoungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git push origin master
To https://github.com/BokyoungChoi/2019_Summer.git
 ! [rejected]        master -> master (non-fast-forward)
error: failed to push some refs to 'https://github.com/BokyoungChoi/2019_Summer.git'
hint: Updates were rejected because the tip of your current branch is behind
hint: its remote counterpart. Integrate the remote changes (e.g.
hint: 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.
```

In my case, the error was just `fatal: refusing to merge unrelated histories` on every try, especially the first pull request after remotely adding a Git repository.

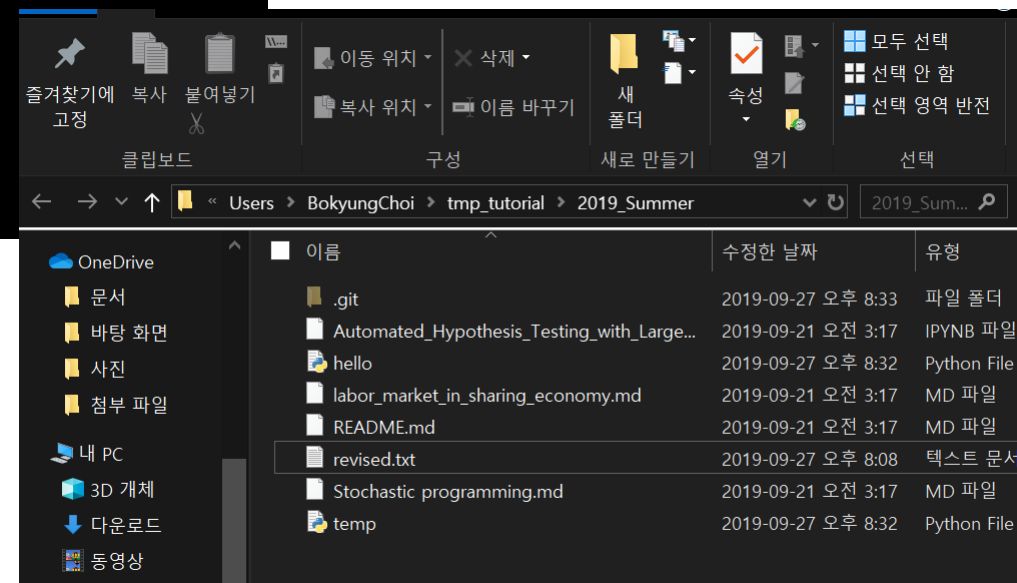
Using the `--allow-unrelated-histories` flag worked with a pull request in this way:

```
git pull origin branchname --allow-unrelated-histories
```

9 일단 원격 저장소의 파일들 받아서 로컬-원격 일치

매끄럽다. 실 폴더를 보면 원격저장소 애들이 추가되어 있다

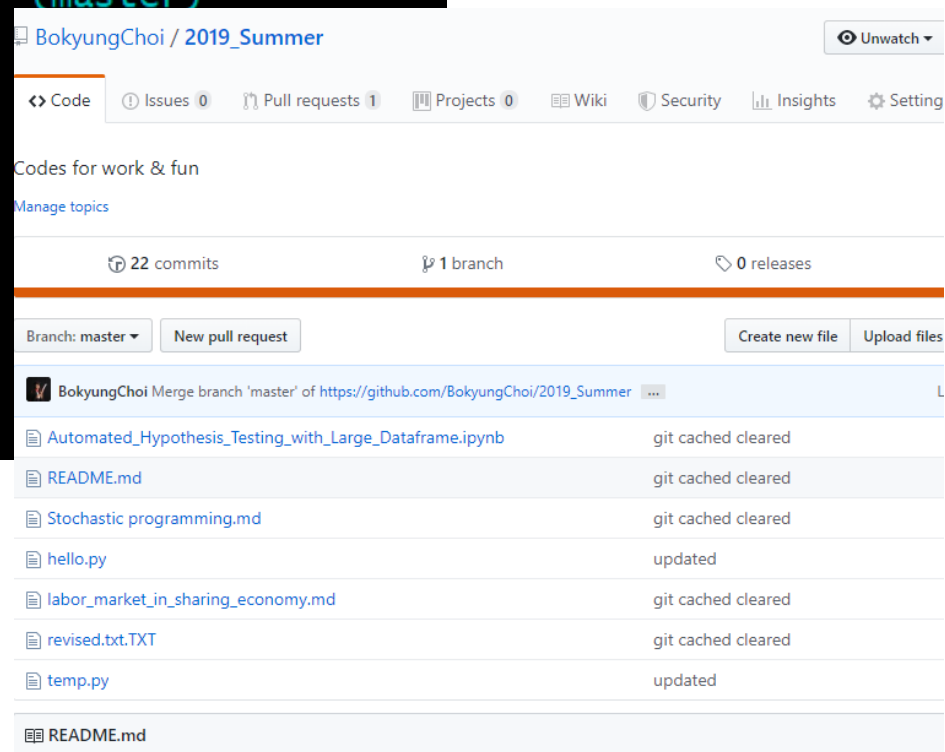
```
BokyoungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git pull origin master --allow-unrelated-histories
From https://github.com/BokyoungChoi/2019_Summer
 * branch          master      -> FETCH_HEAD
Merge made by the 'recursive' strategy.
 hello.py | 3 +++
 temp.py  | 2 ++
2 files changed, 5 insertions(+)
create mode 100644 hello.py
create mode 100644 temp.py
```



10 일치 시킨 후 원격 저장소로 push

매끄럽다. 전 폴더 파일 + 원격저장소 파일 함께 올라간다는 것이 함정

```
BokyoungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git push origin master
Enumerating objects: 47, done.
Counting objects: 100% (47/47), done.
Delta compression using up to 4 threads
Compressing objects: 100% (42/42), done.
Writing objects: 100% (46/46), 20.85 KiB | 593.00 KiB/s, done.
Total 46 (delta 20), reused 0 (delta 0)
remote: Resolving deltas: 100% (20/20), done.
To https://github.com/BokyoungChoi/2019_Summer.git
c35e35e..4202993 master -> master
```



11 협업하는 순서는: 원격 저장소에서 변경사항 pull 그 후에 내 로컬에서 일하고 파일 고치기 그리고 push 하기

```
BokyungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git pull origin master
From https://github.com/BokyungChoi/2019_Summer
 * branch          master      -> FETCH_HEAD
Already up to date.

BokyungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git pull origin master
remote: Enumerating objects: 5, done.
remote: Counting objects: 100% (5/5), done.
remote: Compressing objects: 100% (3/3), done.
remote: Total 3 (delta 2), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (3/3), done.
From https://github.com/BokyungChoi/2019_Summer
 * branch          master      -> FETCH_HEAD
  cf1b553..740bf6a master      -> origin/master
Updating cf1b553..740bf6a
Fast-forward
 labor_market_in_sharing_economy.md | 2 +-
 1 file changed, 1 insertion(+), 1 deletion(-)
```

Already up to date라면 원격저장소
사항과 내 로컬이 다르게 없을 때

다르다면 아래와 같음

11 일하는 순서는: 원격 저장소에서 변경사항 pull 그 후에 내 로컬에서 일하고 파일 고치기 그리고 push 하기

```
BokyoungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git status
On branch master
Changes not staged for commit:
  (use "git add/rm <file>..." to update what will be committed)
  (use "git checkout -- <file>..." to discard changes in working directory)

        deleted:    revised.txt.TXT

Untracked files:
  (use "git add <file>..." to include in what will be committed)

        revised.TXT

no changes added to commit (use "git add" and/or "git commit -a")

BokyoungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git add revised.TXT

BokyoungChoi@DESKTOP-8D048JC MINGW64 ~/tmp_tutorial/2019_Summer (master)
$ git commit
[master f06e487] commit bonnie
1 file changed, 1 insertion(+)
create mode 100644 revised.TXT
```

Git pull origin master
(pull 과정에서 오류 나면 9번 다시 하기)

Git status

Git add 내가 고친 파일

Git commit

끝.

[공지] 퀘스트 업로드 방식

* 본인 github 계정에

GH_Quest 레포지토리 생성

* 파일은 세션 번호별로

본인이름(영어로)_Quest1

본인이름(영어로)_Quest2

와 같은 형태로 업로드

* 파일 형식은 .ipynb 권장

* 예시는 오른쪽과 같으나 똑같이 할 필요 없고, Bonnie_Quest1, BK_Quest1 과 같은 형식으로 해주세요 ☺

