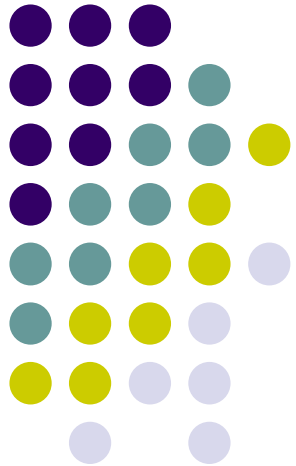
Submitting assignments using GitHub

2019. Fall

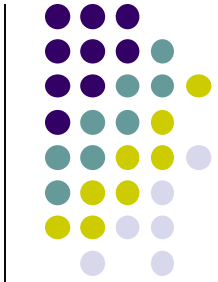
Instructor: Joonho Kwon

Data Science Laboratory, PNU



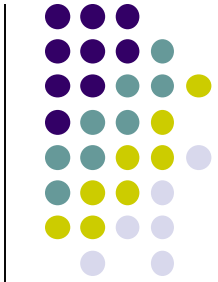
datalab
data science laboratory

The Assignment Workflow (1/2)



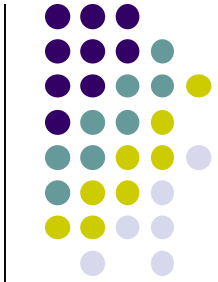
- 1. Homework Announced
  - The assignment specifications and any related materials are posted online.
  - You are invited to access to a GitHub project containing starter code.
- 2. Work on it
  - Clone the repository from GitHub
  - Work on the assignment
  - Commit changes periodically
  - Push changes to GitHub for safe keeping

The Assignment Workflow (2/2)



- 3. Turn it in
  - Push any unpushed commits to GitHub
  - Make sure that your reflection.md is present, and it contains any submission comments you wish to make.
  - Log into GitHub's website and verify that your files look OK.

Step1: Homework announced



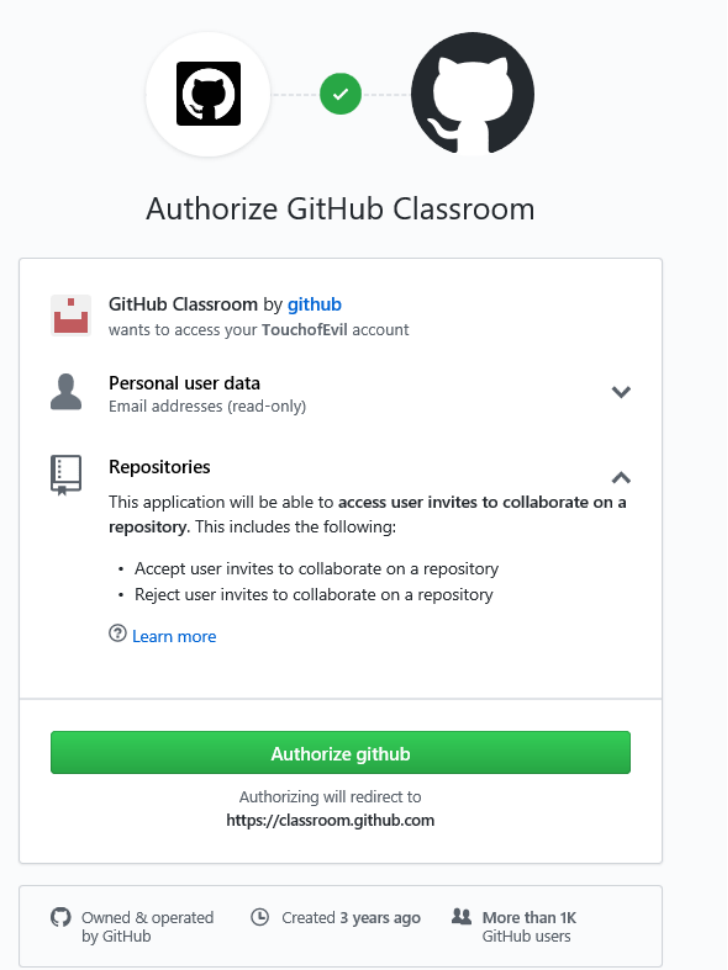
- The Invitation link for Hw3
  - https://classroom.github.com/a/NO6FXxP3

- Getting the code (git clone)
  - 1. click the link and log in to github
  - 2. copy your repository's url
  - 3. Navigate to the directory where you would like to download your repository
  - 4. clone over HTTPS

```
# git clone <repository URL from step 2>
$ git clone https://github.com/TouchofEvil/test.git
```

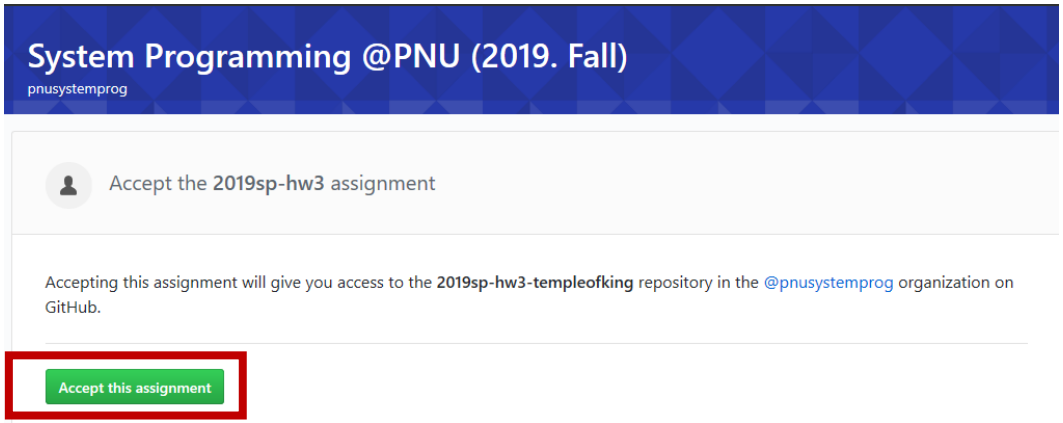
Click the invitation link (1/4)

- 1. Click this link
  - https://classroom.github.com/a/Mxiz86gK
- 2. log into Github
- 3 Click Authorize group

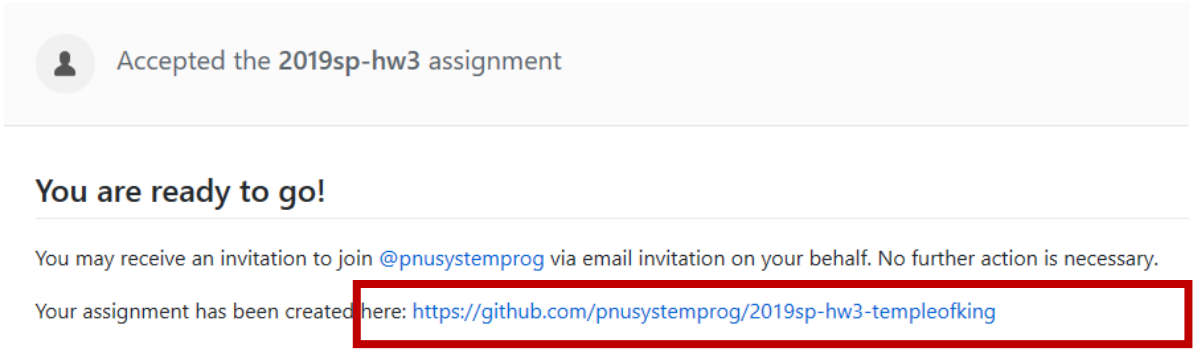


Click the invitation link (2/4)

- 3. Accept this assignment (may not see this)

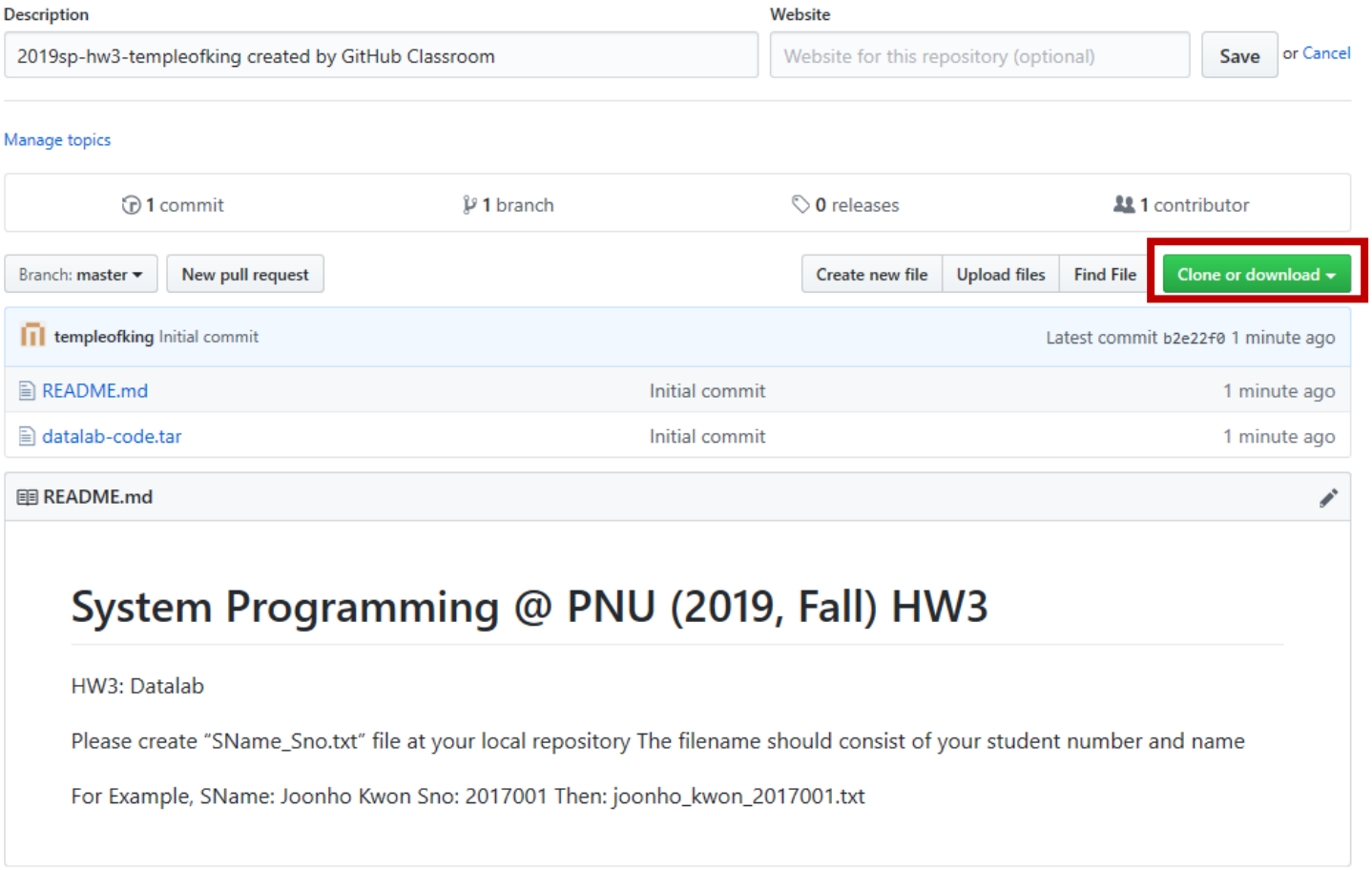


- 4. Remember the url
  - https://github.com/pnusystemprog/2019sp-hw3-YourID



Click the invitation link (3/4)

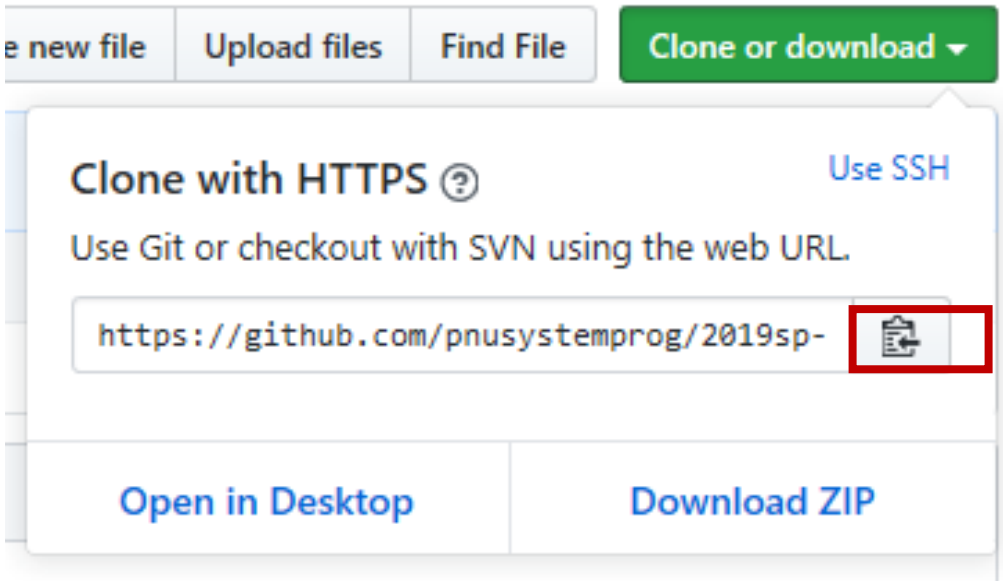
- Check your repository
  - https://github.com/pnusystemprog/2019sp-hw3-YourID



Click

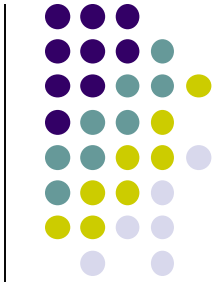
Click the invitation link (4/4)

- Your git repository address for cloning



copy to clipboard

Step 2: Work on it



- Cloning the repository
  - git clone
- Working on your codes
  - git add
- Committing Code
  - git commit
- Looking through your Repository
  - git status, git log
- Pushing your Commits
  - git push

Configure git

- Tell git who you are
  - Run the following commands to tell Git who you are

```
# Use your name
$ git config --global user.name "John Doe"

# Use your email address
$ git config --global user.email johndoe@example.com
```

  - or edit them in ~/.gitconfig (recommended)
- Checking the configuration

```
# Check the configuation
$ git config --list
user.name=John Doe
user.email=johndoe@example.com
```

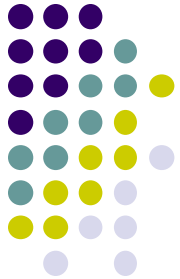
Cloning the repository (1/2)

- Again check the url
  - Each student will have his own url
  - https://github.com/pnusystemprog/2019sp-hw3-TouchofEvil
- Do these commands
  - First, make a homework directory
  - Change directory and clone the repository

```
$ mkdir homeworks
$ cd homeworks

# clone the hw3 directory
$ git clone https://github.com/pnusystemprog/2019sp-hw3-templeofking.git
Cloning into '2019sp-hw3-templeofking'...
Username for 'https://github.com': your github ID
Password for 'https://YourID@github.com': ********
remote: Enumerating objects: 4, done.
remote: Counting objects: 100% (4/4), done.
remote: Compressing objects: 100% (4/4), done.
remote: Total 4 (delta 0), reused 0 (delta 0), pack-reused 0
Unpacking objects: 100% (4/4), done.
```

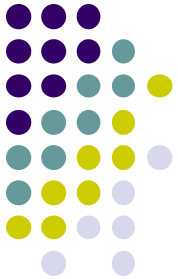
Cloning the repository (2/2)



- Check the local directory
  - Note that the directory name depends on your github ID
  - After changing to hw2-datalab-yourID directory, you can see datalab-handout.tar

```
$ ls
2019sp-hw3-templeofking
$ cd 2019sp-hw3-templeofking
$ ls -al
total 1172
drwxrwxr-x 3 dslab dslab    4096 10? 1 19:55 .
drwxrwxr-x 3 dslab dslab    4096 10? 1 19:54 ..
-rw-rw-r-- 1 dslab dslab 1276928 10? 1 19:55 datalab-code.tar
drwxrwxr-x 8 dslab dslab    4096 10? 1 19:55 .git
-rw-rw-r-- 1 dslab dslab     498 10? 1 19:55 README.md
```

Work on it



- Untar datalab-handout.tar

```
$ tar xvf datalab-code.tar
tar xvf datalab-code.tar
bits.c
tests.c
bits.h
…
Driverhdrs.pm
Driverlib.pm
fshow.c
ishow.c
Makefile
README
```

Make command (1/2)

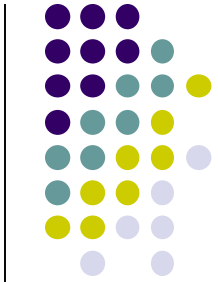
- Execute the make command after untar the datalab-code.tar

```
$ make
```

- When you see the following errors
  - Later version of Ubuntu 14.04/16.04
    - fatal error: sys/cdefs.h: No such file or directory
  - Then, execute following commands

```
$ sudo apt-get install g++-multilib
```

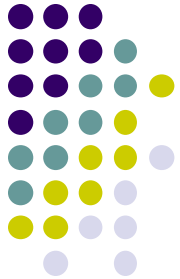
Make command (2/2)



- Make again

```
$  make
gcc -O -Wall -m32 -lm -o btest bits.c btest.c decl.c tests.c
btest.c: In function ?ain?
btest.c:528:9: warning: variable …
     int errors;
         ^
gcc -O -Wall -m32 -o fshow fshow.c
gcc -O -Wall -m32 -o ishow ishow.c
```

Add a txt file



- Add a txt file
  - Create “SName_Sno.txt” file at your local repository
    - The filename should consist of your student number and name
    - Example
      - SName: Joonho Kwon
      - Sno: 2017001

    → joonho_kwon_2017001.txt

```
$ touch joonho_kwon_2017001.txt
$ git add joonho_kwon_2017001.txt
```

If this file is not existed in the github repository, students will have -10% deduction from total scores.

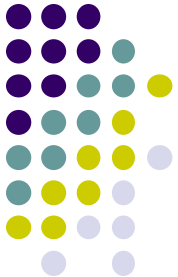
Adding the source code

- Using git add

```
$  make clean

$ git add *.c
$ git add *.h
$ git add *.pm
$ git add *.pl
$ git add README
$ git add Makefile
```

Checking status



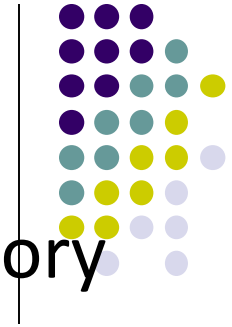
- Git status

```
$   git status
On branch master
…
  (use "git reset HEAD <file>..." to unstage)

        new file:   Driverhdrs.pm
        new file:   Driverlib.pm
        new file:   Makefile
        new file:   README
        new file:   bits.c
        new file:   bits.h
        …
        new file:   fshow.c
        new file:   ishow.c
        new file:   joonho_kwon_2017001.txt
        new file:   tests.c

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

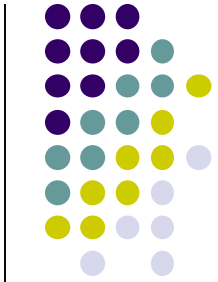
Commit all changes



- Commit newly added files at the local repository

```
$ git commit –m “Add a txt file and source codes”
[master 32271b7] Add a txt file and source codes
 14 files changed, 2114 insertions(+)
 create mode 100755 Driverhdrs.pm
 create mode 100755 Driverlib.pm
 create mode 100755 Makefile
 create mode 100755 README
 create mode 100755 bits.c
 create mode 100755 bits.h
 create mode 100755 btest.c
 create mode 100755 btest.h
 create mode 100755 decl.c
 create mode 100755 driver.pl
 create mode 100755 fshow.c
 create mode 100755 ishow.c
 create mode 100644 joonho_kwon_2017001.txt
 create mode 100755 tests.c
```

Step 3: Turn it in



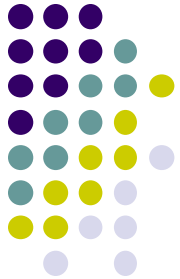
- Add the file to your repository (git add) and commit the new file (git commit).
- Push all your new commits to GitHub (git push).
- Check the GitLab website to ensure that your code looks the way you want it to.

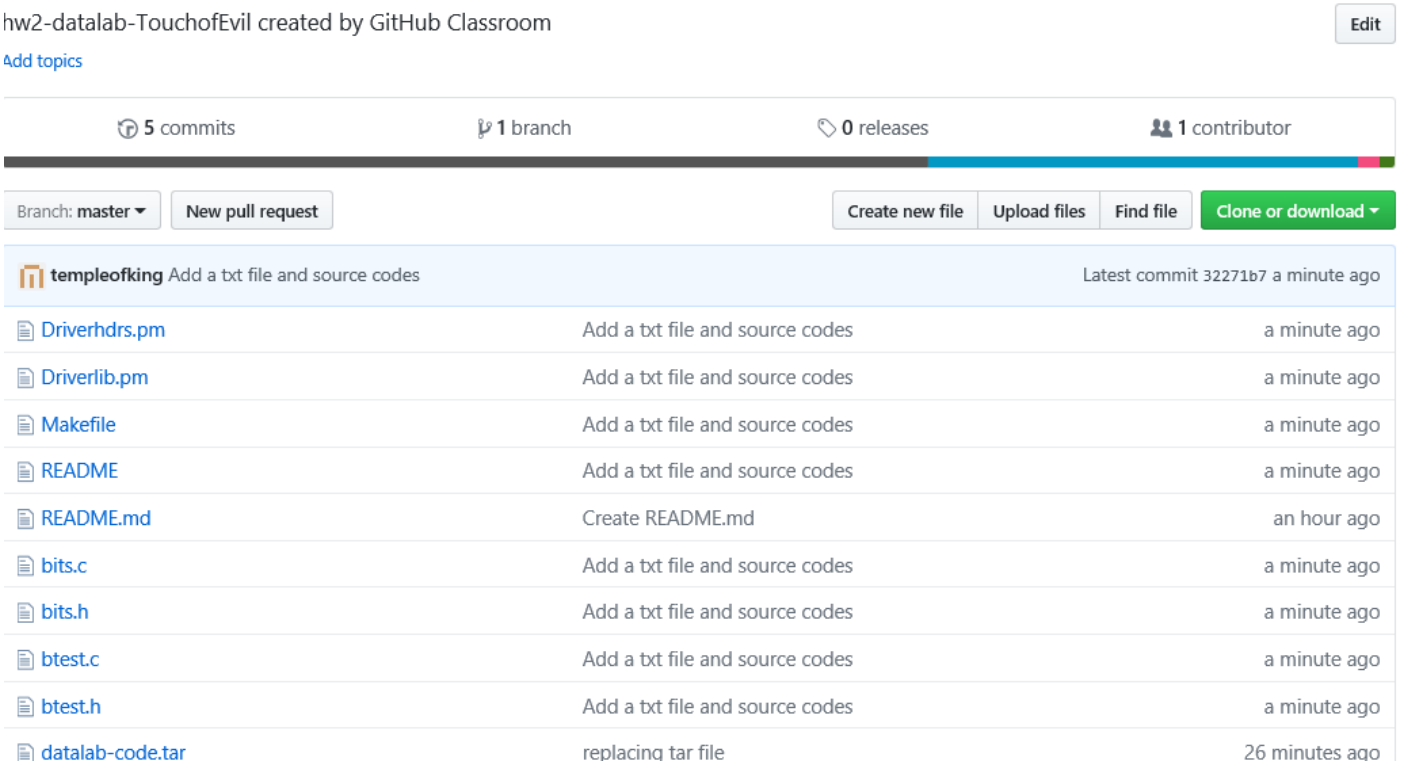
Pushing your Commits

- Git push command

```
$ git push origin master
Username for 'https://github.com': YourID
Password for 'https://YourID@github.com': Your Passwd
Counting objects: 18, done.
Delta compression using up to 4 threads.
Compressing objects: 100% (17/17), done.
Writing objects: 100% (18/18), 19.40 KiB | 0 bytes/s, done.
Total 18 (delta 1), reused 0 (delta 0)
remote: Resolving deltas: 100% (1/1), completed with 1 local object.
To https://github.com/pnusystemprog/hw2-datalab-TouchofEvil
   13b7d85..32271b7  master -> master
```

Checking at the github page





may the Force be with you