CS304
Software Engineering

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Slides adapted from cs409

Recap: Git commands

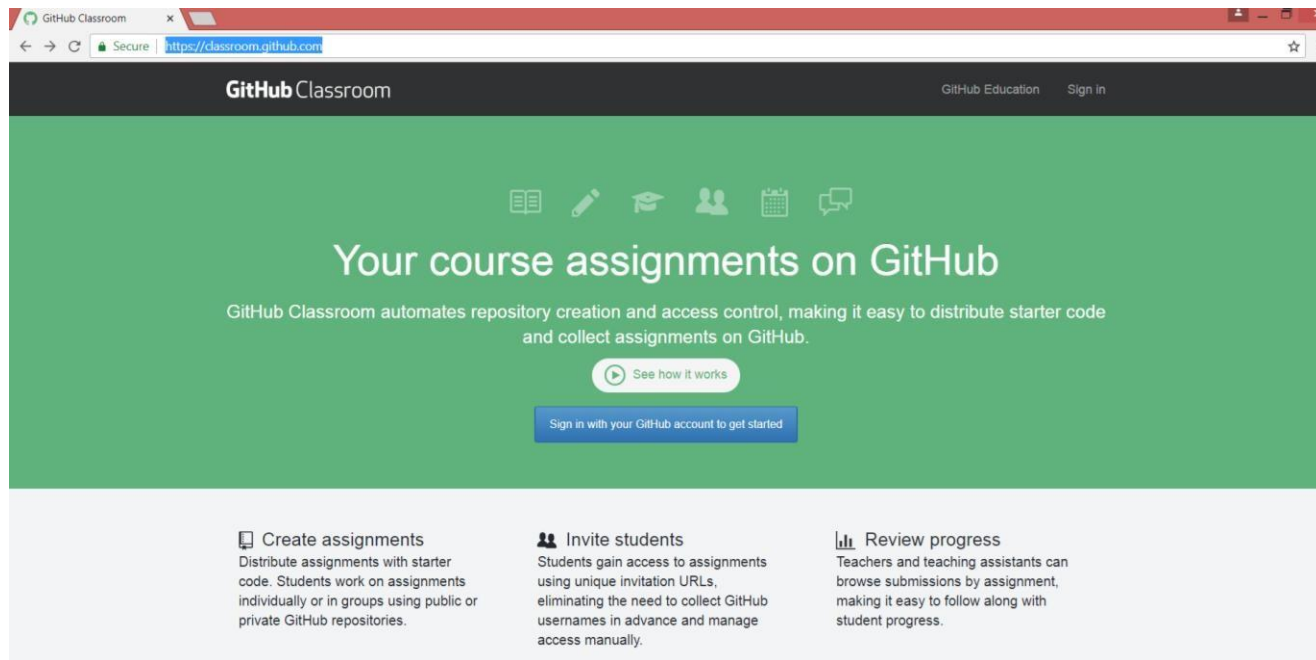| command	description
`git clone url [dir]`	copy a git repository so you can add to it
`git add files`	adds file contents to the staging area
`git commit`	records a snapshot of the staging area
`git status`	view the status of your files in the working directory and staging area
`git diff`	shows diff of what is staged and what is modified but unstaged
`git help [command]`	get help info about a particular command
`git pull`	fetch from a remote repo and try to merge into the current branch
`git push`	push your new branches and data to a remote repository
others: `init, reset, branch, checkout, merge, log, tag`	

Software required

- Install Git:
  - Use Git for your preferred Operating System/ IDE
    - Git command in Ubuntu: sudo apt-get install git-core
    - Git for windows: https://git-scm.com/download/win
    - EGit for Eclipse: https://www.eclipse.org/egit/
  - *I prefer using Git commands on Ubuntu
- Install Your favourite IDE:
  - IntelliJ IDEA: https://www.jetbrains.com/idea/
  - Eclipse: https://www.eclipse.org/downloads/
  - Android Studio (Project): https://developer.android.com/studio/
  - Netbeans: https://netbeans.org/

Collaboration through GitHub Classroom

Main Page

- https://classroom.github.com/

Our organization: cs304-2022-classroom-1

cs304-2022-classroom-1

cs304-2022

Assignments 3   Students 241   TAs and Admins 12   Settings

Assignments

New assignment

We value your feedback! Please take a few minutes to complete our survey. ✕

main-project-repo   Starter Course
Group assignment for **Project**

Invite link ▾

mp0   Starter Course
Individual assignment

Invite link ▾

project-proposal   Starter Course
Group assignment for **Project**

Invite link ▾

List of Assignments: More coming soon...

cs304-2022-classroom-1

cs304-2022

📘 **Assignments** 3   👥 Students 241   🔧 TAs and Admins 12   ⚙️ Settings

Assignments

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main-project-repo   Starter Course
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[Invite link ▾]   ✏️   🗑️

mp0   Starter Course
Individual assignment

[Invite link ▾]   ✏️   🗑️

project-proposal   Starter Course
Group assignment for **Project**

[Invite link ▾]   ✏️   🗑️

First Assignment: mp0
Step 1:
Accept Invitation

- Go to the invitation links:

- https://classroom.github.com/a/N0LWXf2s

Step 2:
Sign in to your existing account/ Create New Account

Select Your Student ID (Do not skip)
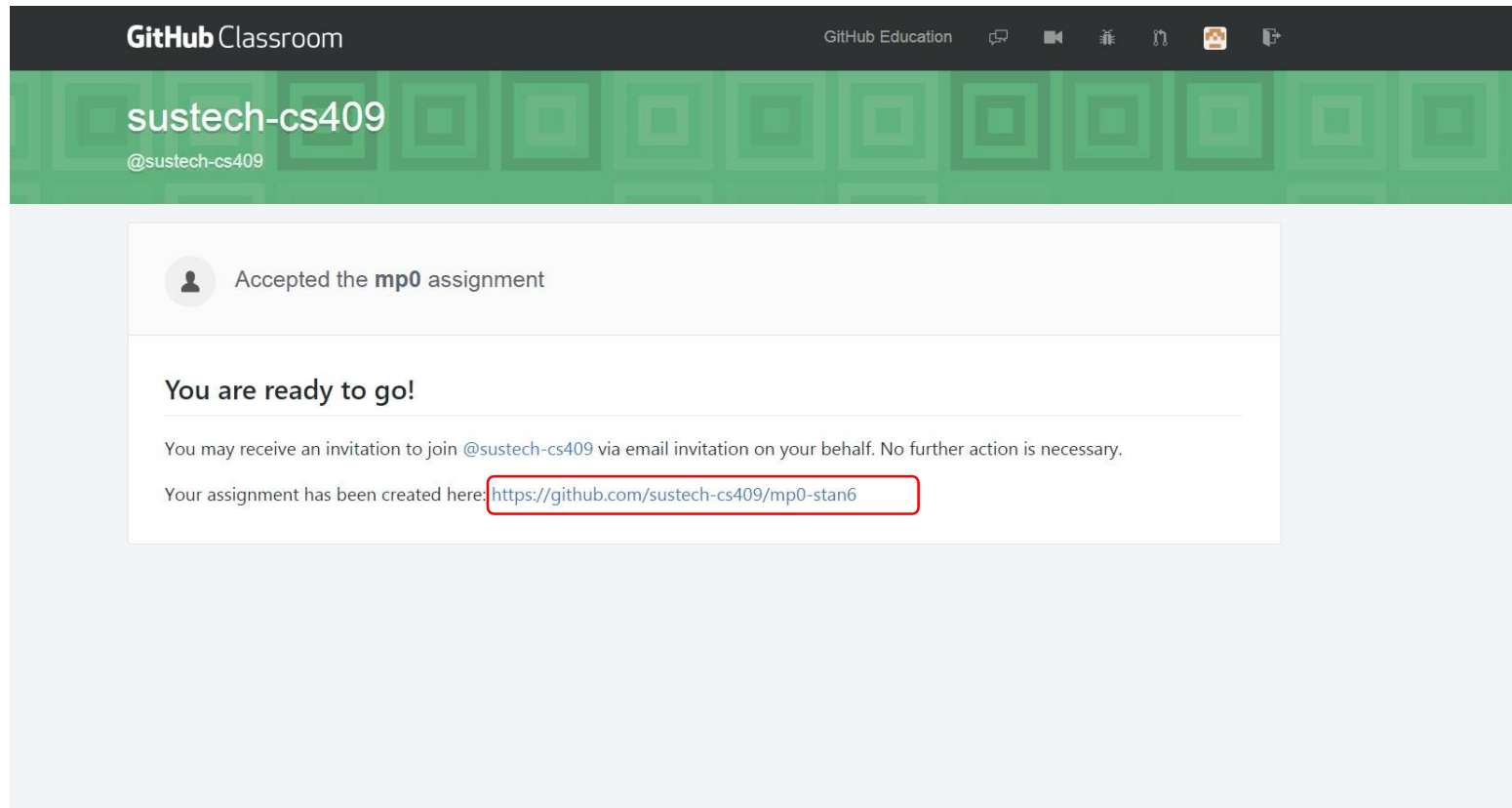
Please let me know if you have problem selecting your ID in this step:
- Select wrong id
- Your id doesn't exist

Repository created!

Step 3:
Get Your Repository in Your local machine

- Use Git from what you learned in previous slides
- Start working on mp0
  - Note: mp0 folder does not contain any starter code! Refer to CS304-mp0.pdf for instruction.

GitHub & Git Basics

Writing README.md

Writing and Formatting README.md

- Styling headings:

```
# The largest heading
## The second largest heading
###### The smallest heading
```

The largest heading

The second largest heading

The smallest heading

Resource: https://help.github.com/articles/basic-writing-and-formatting-syntax/

Writing and Formatting README.md

- Styling text:

Style	Syntax	Keyboard shortcut	Example	Output
Bold	`** **` or `__ __`	command/control + b	`**This is bold text**`	**This is bold text**
Italic	`* *` or `_ _`	command/control + i	`*This text is italicized*`	*This text is italicized*
Strikethrough	`~~ ~~`		`~~This was mistaken text~~`	~~This was mistaken text~~
Bold and italic	`** **` and `_ _`		`**This text is _extremely_ important**`	**This text is *extremely* important**

Writing and Formatting README.md

- Styling lists:

```
- George Washington
- John Adams
- Thomas Jefferson
```

- George Washington
- John Adams
- Thomas Jefferson

To order your list, precede each line with a number.

```
1. James Madison
2. James Monroe
3. John Quincy Adams
```

1. James Madison
2. James Monroe
3. John Quincy Adams

What if you have some big files that you do not want to commit?

Use GitIgnore

Ignoring files

- GitIgnore file is a file that specifying the files or folders that we want to ignore.
- Several ways to specifying GitIgnore files:
  1. Use specific filename. For example, if we want to ignore a file called `readme.txt`, then we just need to write `readme.txt` in the .gitignore file.
  2. Use the name of the extension. For example, if we want to ignore all `.txt` files, then write `*.txt`
  3. Use the name of the folder. For example, if we want to ignore folder named `test`. Then we can just write `test/` in the file.
- Save the file as `.gitignore`
  - **The name of the file should be `.gitignore`**

Extra "homework"

- Do you have your own website?
- Do you know that you can build your own personal website using GitHub pages?
    - Refer to: https://pages.github.com/

*Useful for future career:
- Job interviews
    - Give a link to your CV/Resume that could be updated
- Research profile
    - Upload your new research works
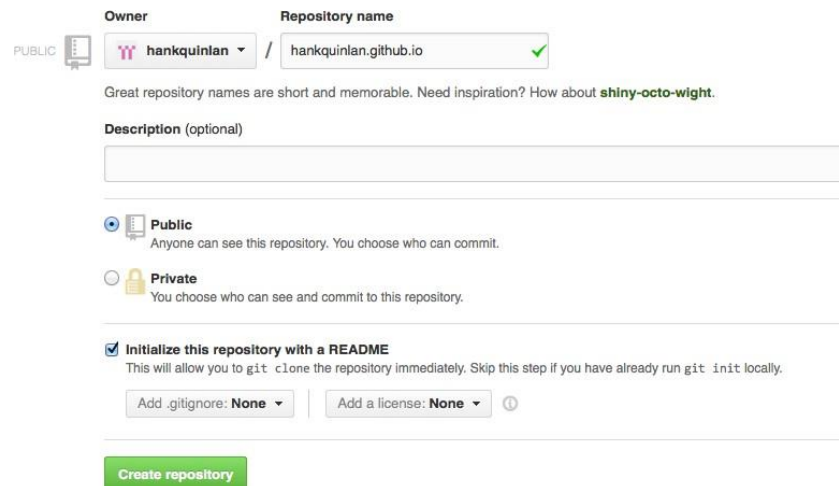
Create Webpage with GitHub Pages

Slides from https://getpublii.com/docs/host-static-website-github-pages.html and http://jmcglone.com/guides/github-pages/

Step 1: Create New Repository

- Log-in to Github, then click the plus icon in the topbar to open a submenu;
- click on the **New repository** option to be taken to the **Create a new repository** screen.
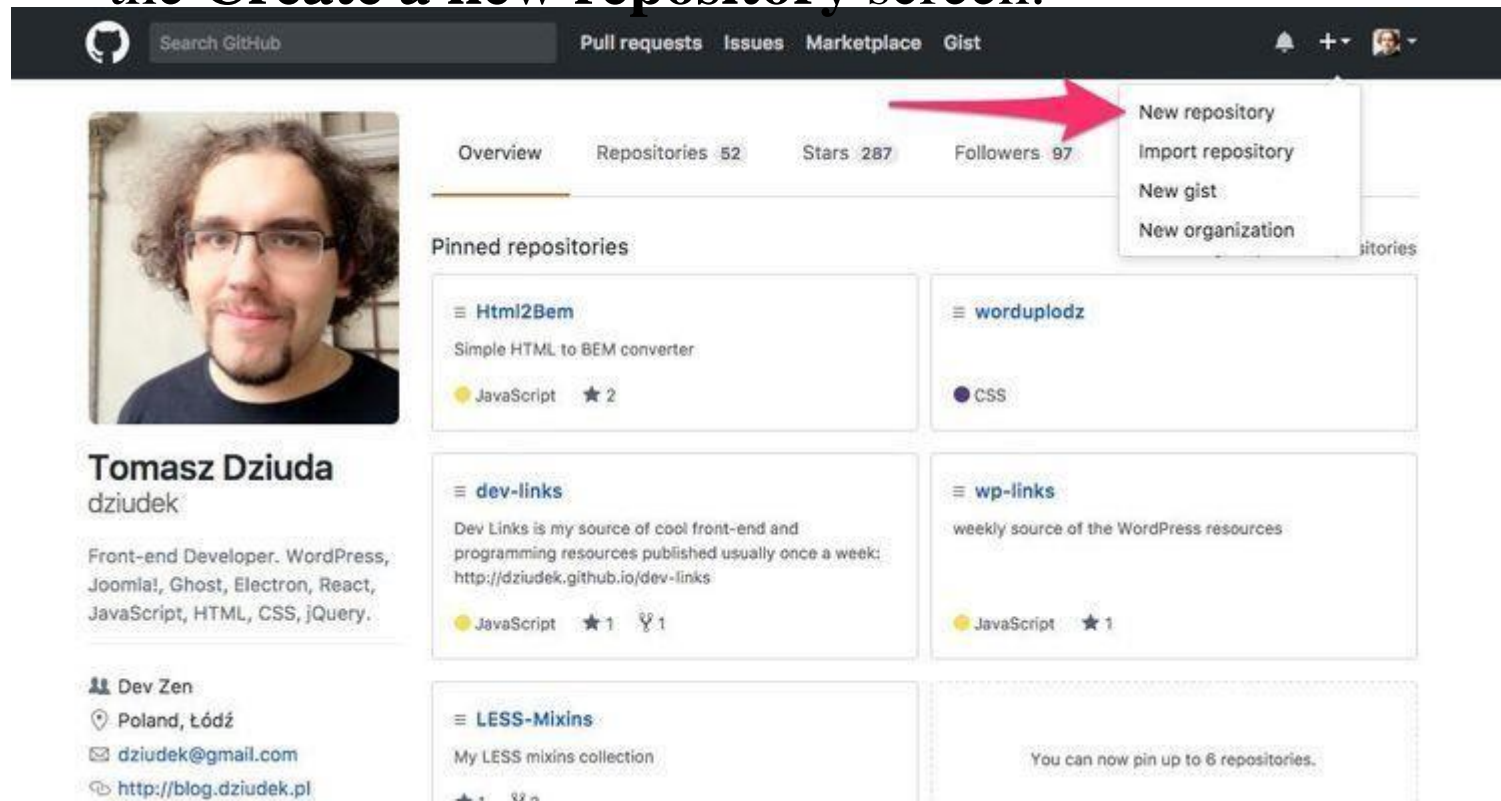
Step 2: Select Repository name

- Name your repository username.github.io, replacing username with your GitHub username.
- Leave the repository as Public (Github Pages are always public, even when the repository hosting it is made private).
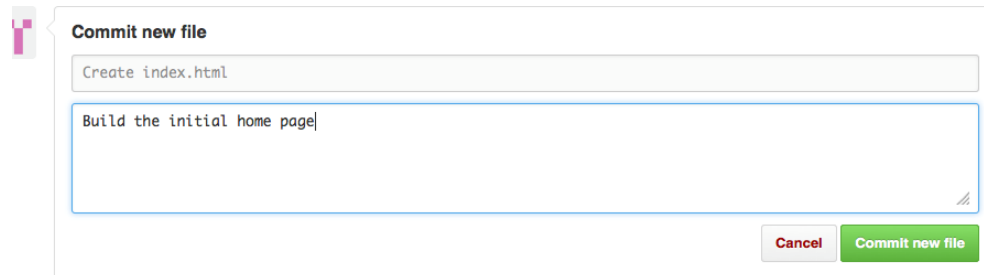- Click the green Create repository button at the bottom of the screen.

Step 3: Create index.html

- Create an index.html page by clicking the plus icon next to your repository name and typing the file name directly in the input box that appears.

Step 4: Commit index.html

- Create an index.html page by clicking the plus icon next to your repository name and typing the file name directly in the input box that appears.
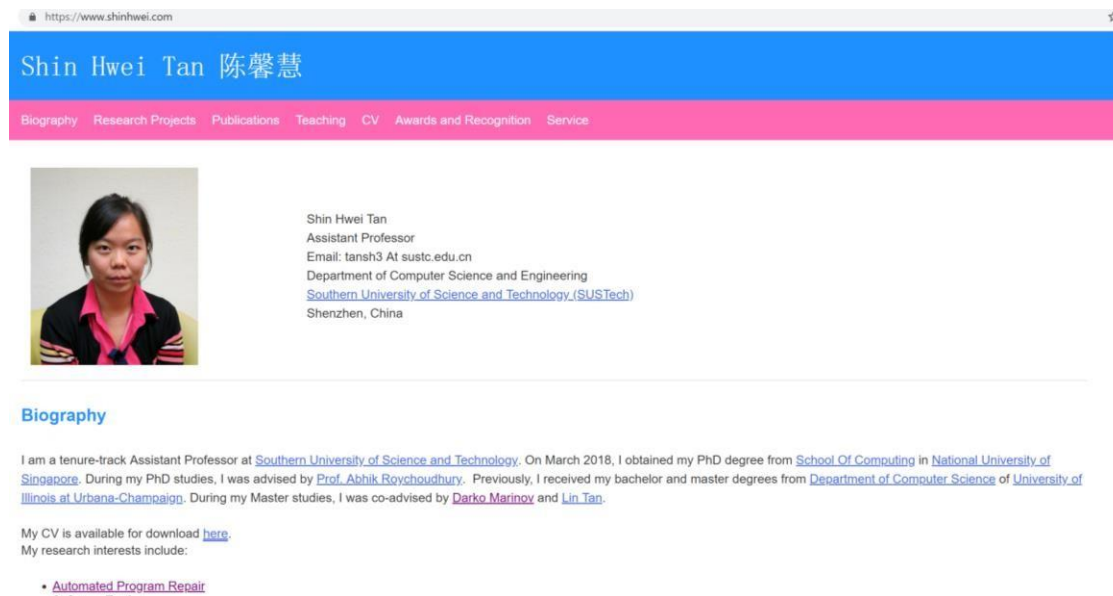
First GitHub Pages!

- Congrats! You just built your first GitHub Pages site. Usually the first time your GitHub Pages site is created it takes 5-10 minutes to go live.
- View it at http://username.github.io.

Assignments Deadline

- MP0 due on 7 March, 2022
- Project Proposal due on 11 March, 2022
  - Find your groupmate this week!
  - Start compiling and running tests for your project