

Week 4

CS110P.07

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- Git
- Autolab / Gitlab

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Git (>= 2.37.1)

Guideline

- What is Git?
- Use git locally
- Push to remote
- Collaboration

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Git – What is Git?

Version Control System

- 不是交作业的平台
- 不能当网盘用
- 联网能用，本地也能用
- 这东西很好用，不是上科大为了考验学生发明的

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Git – Use Git locally

Initialize a repository

```
> git init
Initialized empty Git repository in ~/Desktop/temp/.git/
```

```
> ls -a
./      ../     .git/
```

Git – Remote repository?

Clone a repository

```
> git clone https://autolab.sist.shanghaitech.edu.cn/
```

```
Cloning into 'p1.1_chenst'...
remote: Enumerating objects: 421, done.
remote: Counting objects: 100% (32/32), done.
remote: Compressing objects: 100% (31/31), done.
remote: Total 421 (delta 17), reused 0 (delta 0), pack-reused 389
Receiving objects: 100% (421/421), 61.11 KiB | 6.79 MiB/s, done.
Resolving deltas: 100% (204/204), done
```

Git – track a file

```
> touch 1.txt  
  
/* Modify 1.txt */  
  
> git add 1.txt
```

Git – commit

Make a snapshot

```
> git commit -m "added and modified 1.txt"
```

```
[master (root-commit) d6c6c6c] added and modified 1.txt
 1 file changed, 0 insertions(+), 0 deletions(-)
 create mode 100644 1.txt
```

Git – Branch (optional)

```
> git branch dev  
> git checkout dev  
Switched to branch 'dev'
```

Git – remote

```
> git clone https://autolab.sist.shanghaitech.edu.cn/  
/* Modify/add/delete files */  
  
> git commit -m "added and modified 1.txt"  
> git push
```

Miscellaneous

- Demo!
- Grading policy & Check
- (Optional) How Autolab and Gitlab works?

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Start early!

... or fail the course

Recommended readings

1. <https://git-scm.com/book/en/v2/Git-Branching-Banches-in-a-Nutshell>