LAB3

Wu Jiayao, 517370910257

1. Git

Search what is git

Git is a free and open source distributed version control system designed to handle everything from small to very large projects with speed and efficiency.
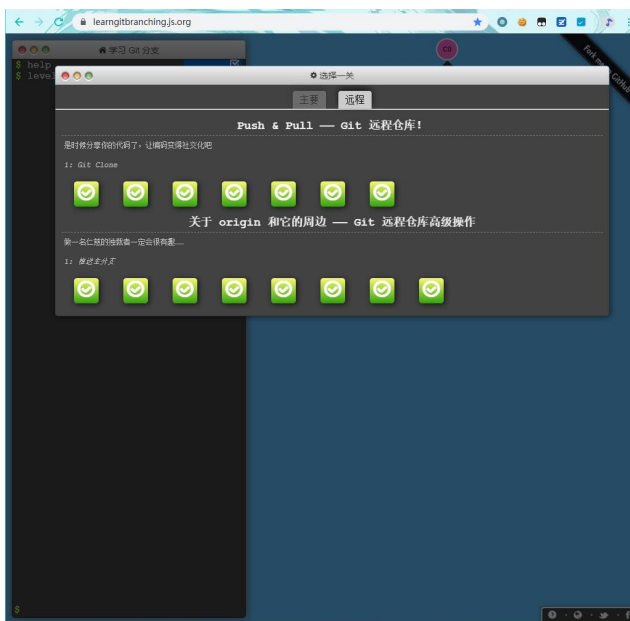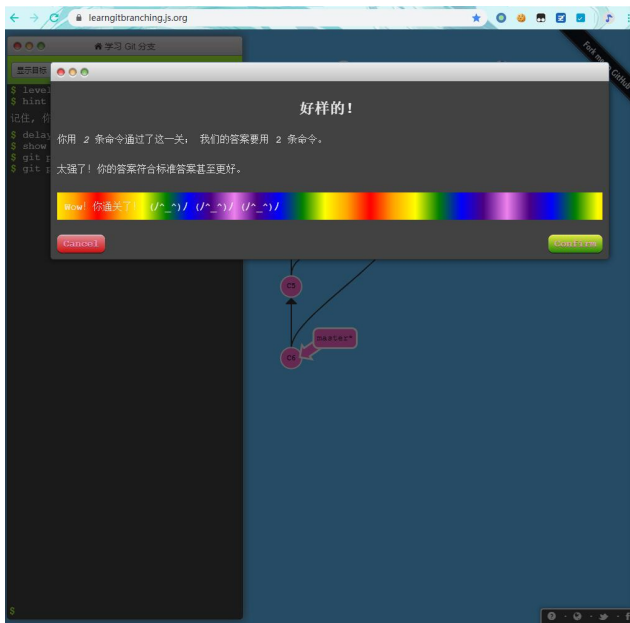
Install a git client.

```
1  apt-get install git
```

Search the use of the following git commands:

- **help** Give help information about git
- **init** Create an empty git repository or reinitalize an existing one
- **checkout** Switch branches or restore working tree files
- **branch** List, create, or delete branches
- **push** Update remote refs along with associated objects
- **pull** Fetch from and integrate with another repository or a local branch
- **merge** Join two or more development histories together
- **add** Add file contents to the index
- **diff** Show changes between commits, commit and working tree, etc
- **tag** Create, list, delete or verify a tag object signed with GPG
- **log** Show commit logs
- **fetch** Download objects and refs from another repository
- **commit** Record changes to the repository
- **clone** Clone a repository into a new directory
- **reset** Reset current HEAD to the specified state

2. Git game

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3. Working with source code

3.1

```
1   # 1
2   pkgin install rsync
3   # 2
4   apt-get rsync
5   # 3
6   man rsync
7   # 4
8   cp -r /usr/src /usr/src_orig
9   # 5
10  rsync -az minix3:/usr/src_orig ~/minix3
```

3.2

```
1   # 1
2   man diff
3   man patch
4   # 2
5   diff -rc /usr/src_orig /usr/src
6   # 3
7   rsync -az minix3:/root/data ~/minix3_patch
8   # 4
9   cd ~/minix3
10  patch -p3 ../minix3_patch
11  # 5
12  cd ~/minix3
13  patch -RE -p3../minix3_patch
```

Reference

Git, www.git-scm.com/