|           | <u>Bioinformatics</u> |
|-----------|-----------------------|
| → Project | Study Group bioinfo   |
|           |                       |

#### #登录服务器

\$ ssh bio01@182.42.145.90 bio01@182.42.145.90's password:xxxxxxxx

### #设置清华镜像,安装conda

\$ wget https://mirrors.tuna.tsinghua.edu.cn/anaconda/miniconda/l--2024-06-09 13:13:48-- https://mirrors.tuna.tsinghua.edu.cn/anaconda/miniconda/l--2024-06-09 13:13:48-- https://mirrors.tuna.tsinghua.edu.cn (mirrors.tuna.tsinghua.edu.cn (mirrors.t

Length: 143808873 (137M) [application/octet-stream]

Saving to: 'Miniconda3-latest-Linux-x86\_64.sh'

2024-06-09 13:13:52 (36.7 MB/s) - 'Miniconda3-latest-Linux-x86\_6

#### #安装conda

\$ bash Miniconda3-latest-Linux-x86\_64.sh

Welcome to Miniconda3 py312\_24.4.0-0

In order to continue the installation process, please review the

agreement.

Please, press ENTER to continue >>>

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#### 2. USERS & LICENSING.

Do you accept the license terms? [yes|no] >>> yes

Miniconda3 will now be installed into this location: /home/bio01/miniconda3

- Press ENTER to confirm the location
- Press CTRL-C to abort the installation
- Or specify a different location below

[/home/bio01/miniconda3] >>> PREFIX=/home/bio01/miniconda3 Unpacking payload ...

Installing base environment...

Downloading and Extracting Packages:

Downloading and Extracting Packages:

Preparing transaction: done Executing transaction: done

installation finished.

Do you wish to update your shell profile to automatically initiant This will activate conda on startup and change the command prompt you'd prefer that conda's base environment not be activated or

```
run the following command when conda is activated:
conda config --set auto_activate_base false
You can undo this by running `conda init --reverse $SHELL`? [yes
[no] >>> yes
no change
              /home/bio01/miniconda3/condabin/conda
              /home/bio01/miniconda3/bin/conda
no change
              /home/bio01/miniconda3/bin/conda-env
no change
              /home/bio01/miniconda3/bin/activate
no change
              /home/bio01/miniconda3/bin/deactivate
no change
no change
              /home/bio01/miniconda3/etc/profile.d/conda.sh
              /home/bio01/miniconda3/etc/fish/conf.d/conda.fish
no change
              /home/bio01/miniconda3/shell/condabin/Conda.psm1
no change
no change
              /home/bio01/miniconda3/shell/condabin/conda-hook.
              /home/bio01/miniconda3/lib/python3.12/site-package
no change
no change
              /home/bio01/miniconda3/etc/profile.d/conda.csh
              /home/bio01/.bashrc
modified
==> For changes to take effect, close and re-open your current s
Thank you for installing Miniconda3!
#安装成功
#激活conda
source ~/.bashrc
#conda一下
conda
usage: conda [-h] [-v] [--no-plugins] [-V] COMMAND ...
conda is a tool for managing and deploying applications, enviror
options:
  -h, --help
                      Show this help message and exit.
  -v, --verbose
                      Can be used multiple times. Once for detain
```

--no-plugins Disable all plugins that are not built in -V, --version Show the conda version number and exit.

#### commands:

The following built-in and plugins subcommands are available.

### COMMAND

compare

activate Activate a conda environment.

clean Remove unused packages and caches.

config Modify configuration values in .condarc.
content-trust Signing and verification tools for Conda
create Create a new conda environment from a list
deactivate Deactivate the current active conda environment
doctor Display a health report for your environment

export Export a given environment

info Display information about current conda in init Initialize conda for shell interaction.

install Install a list of packages into a specific list List installed packages in a conda enviror

notices Retrieve latest channel notifications.

package Create low-level conda packages. (EXPERIM

remove (uninstall)

Remove a list of packages from a specified

Compare packages between conda environment

rename Rename an existing environment. repoquery Advanced search for repodata.

run Run an executable in a conda environment.
search Search for packages and display associated update (upgrade) Update conda packages to the latest compat

#### #设置conda下载镜像

conda config --add channels https://mirrors.bfsu.edu.cn/anaconda conda config --set show\_channel\_urls

```
#查看conda安装包
conda list
# packages in environment at /home/bio01/miniconda3:
#
# Name
                         Version
                                                   Build Chan
_libgcc_mutex
                         0.1
                                                    main
                                                            det
                         5.1
_openmp_mutex
                                                   1 gnu
                                                            det
                       0.4.4
                                         py312hfc0e8ea_100
anaconda-anon-usage
                         0.2.3
                                            pyhd3eb1b0_0
                                                            det
archspec
#安装了错误镜像地址:
conda config --add channels {{bfsu}}
#导致安装不成功
conda install fastqc -y
Channels:
- {{bfsu}}
- defaults
Platform: osx-arm64
Collecting package metadata (repodata.json): failed
UnavailableInvalidChannel: HTTP 404 NOT FOUND for channel {{bfsi
The channel is not accessible or is invalid.
You will need to adjust your conda configuration to proceed.
Use `conda config --show channels` to view your configuration's
and use `conda config --show-sources` to view config file locat:
#删除路径
conda config --remove channels '{{bfsu}}'
#安装成功
conda install fastqc -y
Channels:
 - https://mirrors.bfsu.edu.cn/anaconda/pkgs/main
 - https://mirrors.bfsu.edu.cn/anaconda/pkgs/free
```

```
- https://mirrors.bfsu.edu.cn/anaconda/cloud/conda-forge
```

- https://mirrors.bfsu.edu.cn/anaconda/cloud/bioconda

- defaults

Platform: osx-arm64

Collecting package metadata (repodata.json): done

Solving environment: done

## Package Plan ##

environment location: /opt/anaconda3

added / updated specs:

- fastqc

The following packages will be downloaded:

| package                     | 1   | build      |       |              |
|-----------------------------|-----|------------|-------|--------------|
|                             |     |            |       |              |
| fastqc-0.12.1               | 1   | hdfd78af_0 | 11.1  | MI           |
| font-ttf-dejavu-sans-mono-2 | .37 | hd3eb1b0_0 | 3     | 33           |
| fontconfig-2.14.1           |     | hee714a5_2 | 254   | ΚI           |
| gdbm-1.18                   |     | h8fe7016_4 | 141   | ΚI           |
| openjdk-11.0.13             |     | h98b2900_0 | 164.3 | MI           |
| perl-5.34.0                 |     | h1a28f6b_2 | 14.0  | MI           |
|                             |     |            |       | . <b>-</b> . |
|                             |     | Total:     | 190.1 | ME           |

The following NEW packages will be INSTALLED:

```
fastqc anaconda/cloud/bioconda/noarch::fastqc-0.12 font-ttf-dejavu-s~ anaconda/pkgs/main/noarch::font-ttf-dejavu-fontconfig anaconda/pkgs/main/osx-arm64::fontconfig-2 gdbm anaconda/pkgs/main/osx-arm64::gdbm-1.18-h81 openjdk anaconda/pkgs/main/osx-arm64::openjdk-11.0 anaconda/pkgs/main/osx-arm64::perl-5.34.0-l
```

```
Downloading and Extracting Packages:
Preparing transaction: done
Verifying transaction: done
Executing transaction: done
#运行fastqc --help查看是否安装成功
fastqc --help
#查看conda环境
conda info --envs
# conda environments:
#
                        /opt/anaconda3
base
# 新建conda环境,用python3
conda create -n rna-seq python=3 fastqc trimmomatic -y
Channels:
 - https://mirrors.bfsu.edu.cn/anaconda/pkgs/main
 - https://mirrors.bfsu.edu.cn/anaconda/pkgs/free
 - https://mirrors.bfsu.edu.cn/anaconda/cloud/conda-forge
 - https://mirrors.bfsu.edu.cn/anaconda/cloud/bioconda
 - defaults
Platform: osx-arm64
Collecting package metadata (repodata.json): done
Solving environment: done
## Package Plan ##
 environment location: /opt/anaconda3/envs/rna-seq
```

# added / updated specs:

- fastqc
- python=3
- trimmomatic

# The following packages will be downloaded:

| package                   | build           |         |
|---------------------------|-----------------|---------|
| bzip2-1.0.8               | h80987f9_6      | 129 KI  |
| ca-certificates-2024.3.11 | hca03da5_0      | 128 KI  |
| expat-2.6.2               | h313beb8_0      | 150 KI  |
| freetype-2.12.1           | h1192e45_0      | 570 KI  |
| icu-73.1                  | h313beb8_0      | 25.4 MI |
| libcxx-14.0.6             | h848a8c0_0      | 965 KI  |
| libffi-3.4.4              | hca03da5_1      | 120 KI  |
| libiconv-1.16             | h80987f9_3      | 735 KI  |
| libpng-1.6.39             | h80987f9_0      | 283 KI  |
| libxml2-2.10.4            | h0b34f26_2      | 638 KI  |
| ncurses-6.4               | h313beb8_0      | 884 KI  |
| openssl-3.0.13            | h1a28f6b_2      | 4.3 MI  |
| pip-24.0                  | py312hca03da5_0 | 3.3 MI  |
| oython-3.12.3             | h99e199e_1      | 14.0 MI |
| readline-8.2              | h1a28f6b_0      | 353 KI  |
| setuptools-69.5.1         | py312hca03da5_0 | 1.3 MI  |
| sqlite-3.45.3             | h80987f9_0      | 1.2 MI  |
| tk-8.6.14                 | h6ba3021_0      | 3.3 MI  |
| trimmomatic-0.39          | hdfd78af_2      | 144 KI  |
| tzdata-2024a              | h04d1e81_0      | 116 KI  |
| wheel-0.43.0              | py312hca03da5_0 | 140 KI  |
| xz-5.4.6                  | h80987f9_1      | 371 KI  |
| zlib-1.2.13               | h18a0788_1      | 91 KI   |
|                           | <br>Total:      | 58.4 MI |
|                           | IOCALI          | 0014 1  |

## The following NEW packages will be INSTALLED:

```
anaconda/pkgs/main/osx-arm64::bzip2-1.0.8-l
bzip2
ca-certificates
                   anaconda/pkgs/main/osx-arm64::ca-certificat
expat
                   anaconda/pkgs/main/osx-arm64::expat-2.6.2-l
fastqc
                   anaconda/cloud/bioconda/noarch::fastgc-0.1%
                   anaconda/pkgs/main/noarch::font-ttf-dejavu
font-ttf-dejavu-s~
fontconfig
                   anaconda/pkgs/main/osx-arm64::fontconfig-2
freetype
                   anaconda/pkgs/main/osx-arm64::freetype-2.1%
qdbm
                   anaconda/pkgs/main/osx-arm64::gdbm-1.18-h81
icu
                   anaconda/pkgs/main/osx-arm64::icu-73.1-h31
libcxx
                   anaconda/pkgs/main/osx-arm64::libcxx-14.0.0
libffi
                   anaconda/pkgs/main/osx-arm64::libffi-3.4.4
libiconv
                   anaconda/pkgs/main/osx-arm64::libiconv-1.10
                   anaconda/pkgs/main/osx-arm64::libpng-1.6.39
libpng
libxml2
                   anaconda/pkgs/main/osx-arm64::libxml2-2.10
                   anaconda/pkgs/main/osx-arm64::ncurses-6.4-l
ncurses
                   anaconda/pkgs/main/osx-arm64::openjdk-11.0
openjdk
openssl
                   anaconda/pkgs/main/osx-arm64::openssl-3.0.:
perl
                   anaconda/pkgs/main/osx-arm64::perl-5.34.0-l
pip
                   anaconda/pkgs/main/osx-arm64::pip-24.0-py3:
                   anaconda/pkgs/main/osx-arm64::python-3.12.
python
readline
                   anaconda/pkgs/main/osx-arm64::readline-8.2
                   anaconda/pkgs/main/osx-arm64::setuptools-69
setuptools
sqlite
                   anaconda/pkgs/main/osx-arm64::sqlite-3.45.
tk
                   anaconda/pkgs/main/osx-arm64::tk-8.6.14-h6l
trimmomatic
                   anaconda/cloud/bioconda/noarch::trimmomatic
tzdata
                   anaconda/pkgs/main/noarch::tzdata-2024a-h04
whee1
                   anaconda/pkgs/main/osx-arm64::wheel-0.43.0
                   anaconda/pkgs/main/osx-arm64::xz-5.4.6-h809
X7
7lib
                   anaconda/pkgs/main/osx-arm64::zlib-1.2.13-l
```

## Downloading and Extracting Packages:

```
Preparing transaction: done
Verifying transaction: done
Executing transaction: done
#
# To activate this environment, use
#
      $ conda activate rna-seq
#
#
# To deactivate an active environment, use
#
# $ conda deactivate
#创建成功
conda info --envs
# conda environments:
#
                      * /opt/anaconda3
base
                         /opt/anaconda3/envs/rna-seq
rna-seq
#激活新环境
conda activate rna-seq
#关闭
rna-seq ~ git: (master) $\diamonds$ (0.098s)
conda deactivate
```