

Install Debian

tsaimh (2026)
phkoan (2025)

Debian

- Debian is a GNU/Linux operating system distribution composed of Free Software.
- NYCU CSIT uses Debian for teaching and services, including workstations and websites.



ISO Image (.iso or .udf)

- An ISO image is a single file containing the contents and file-system structure of installation media.
- It can be written to a USB drive or DVD to create bootable installation media.
- Operating systems are commonly distributed as ISO images.



Install Debian

Download Debian ISO Image

- Debian 13.6 was released on July 11, 2026.
- The ISO file can be downloaded from the [official download page](#) or from either of these Taiwan mirror sites:
 - <https://debian.cs.nycu.edu.tw/debian-cd/>
 - <https://free.nchc.org.tw/debian-cd/>

Debian Installation - TL;DR

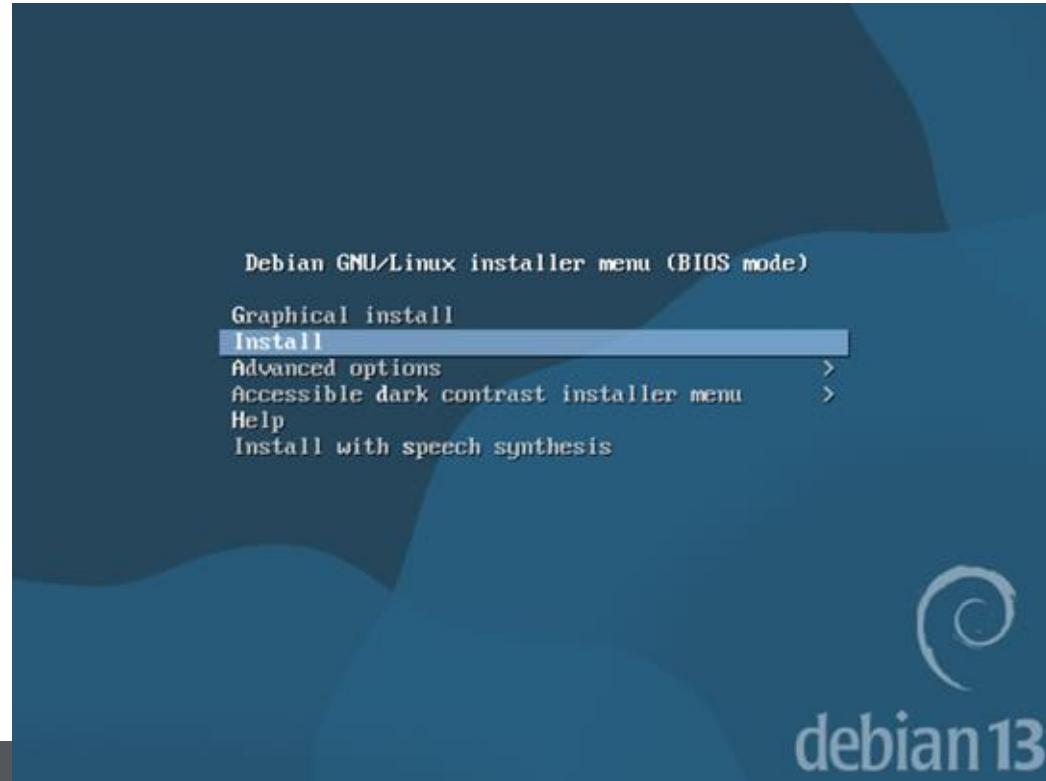
● Recommended settings for this course

- Country / region: Taiwan.
- Locale and keymap: en_US / American English.
- For disk partitioning, choose Guided - use entire disk and use the default layout.
- NYCU CSIT hosts a Debian mirror at debian.cs.nycu.edu.tw; choose it when selecting a mirror site.
- For package selection, select SSH server and standard system utilities. A desktop environment is optional.

● Other installer settings can usually be left at their defaults.

Installation Menu

- Select "Install" so your screens match this guide.
- "Graphical install" is also available, but its screens look different.



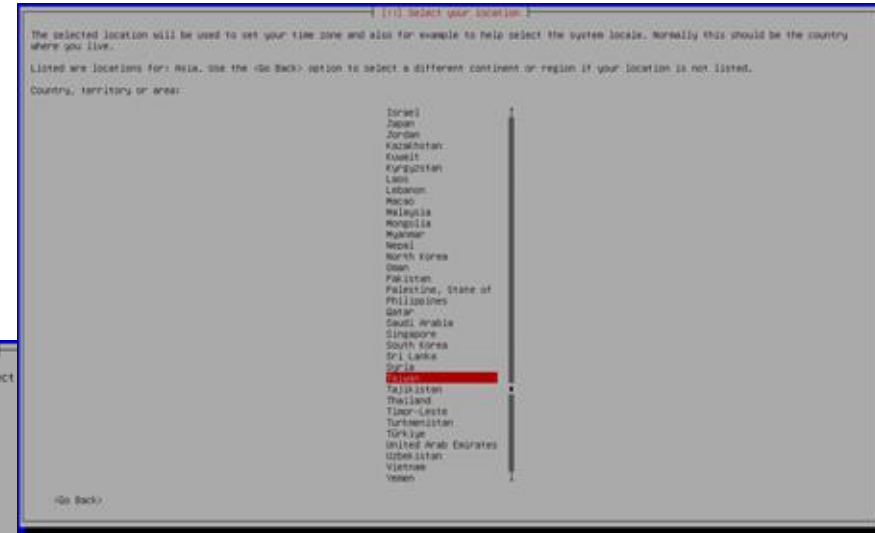
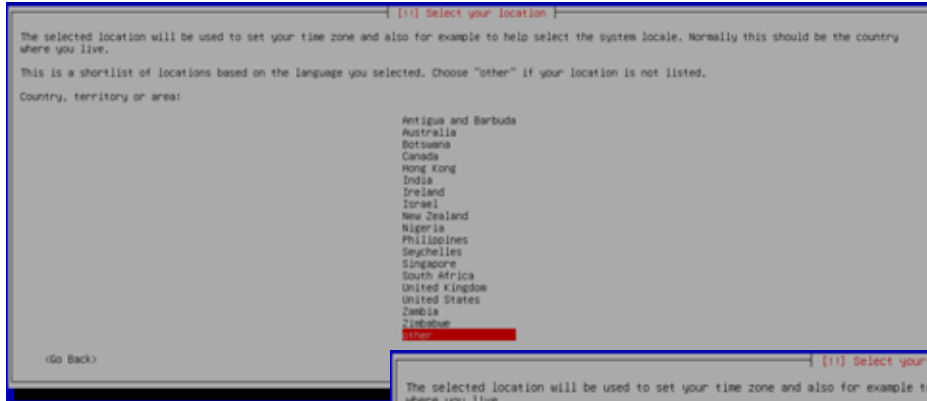
Language Selection

Select English as the installer language.



Location Selection

Choose "Other" > "Asia" > "Taiwan".



Locale & Keymap Selection

Select en_US.UTF-8 for the locale and American English for the keymap.

```
[!] Configure locales

There is no locale defined for the combination of language and country you have selected. You can now select your preference from the locales available for the selected language. The locale that will be used is listed in the second column.

Country to base default locale settings on:

Antigua and Barbuda - en_AG
Australia - en_AU.UTF-8
Botswana - en_BW.UTF-8
Canada - en_CA.UTF-8
Hong Kong - en_HK.UTF-8
India - en_IN
Ireland - en_IE.UTF-8
Israel - en_IL
New Zealand - en_NZ.UTF-8
Nigeria - en_NG
Philippines - en_PH.UTF-8
Seychelles - en_SC.UTF-8
Singapore - en_SG.UTF-8
South Africa - en_ZA.UTF-8
United Kingdom - en_GB.UTF-8
United States - en_US.UTF-8
Zambia - en_ZM
Zimbabwe - en_ZW.UTF-8

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```

```
[!] Configure the keyboard

Keymap to use:
American English
Albanian
Arabic
Asturian
Bangladesh
Belarusian
Bengali
Belgian
Berber (Latin)
Bosnian
Brazilian
British English
Bulgarian (BDS layout)
Bulgarian (phonetic layout)
Burmese
Canadian French
Canadian Multilingual
Catalan
Chinese
Croatian
Czech
Danish
Dutch
Dvorak
Dzongkha
Esperanto
Estonian
Ethiopian
Finnish
French
Georgian
German
Greek
Gujarati
Gurmukhi
Hebrew
Hindi
Hungarian
Icelandic

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```

Hostname & Domain Name

Set the hostname and domain name according to the homework requirements.

[!] Configure the network

Please enter the hostname for this system.

The hostname is a single word that identifies your system to the network. If you don't know what your hostname should be, consult your network administrator. If you are setting up your own home network, you can make something up here.

Hostname:

nasa-hw

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[!] Configure the network

The domain name is the part of your Internet address to the right of your host name. It is often something that ends in .com, .net, .edu, or .org. If you are setting up a home network, you can make something up, but make sure you use the same domain name on all your computers.

Domain name:

2025.sa

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Set Root Password

- Choose a strong root password.
- Enter it again when prompted for confirmation.

!!! Set up users and passwords

Some accounts need to be available with administrative super-user privileges. The password for that account should be something that cannot be guessed.

To allow direct password-based access via the 'root' account, you can set the password for that account here.

Alternatively, you can lock the root account's password by leaving this setting empty, and instead use the system's initial user account (which will be set up in the next step) to gain administrative privileges. This will be enabled for you by adding that initial user to the 'sudo' group.

Note: what you type here will be hidden (unless you select to show it).

Root password:

•••••

☐ Show Password in Clear

<Go Back>

<Continue>

Set Up User Account

- Enter the username and password you want to use.
 - For this exercise, the full name and username may be the same.
- Re-enter the password when prompted.

The image shows three overlapping terminal windows from a Linux installation process, specifically the 'Set up users and passwords' step. The top window prompts for the full name of the new user, with 'phkoan' entered. The middle window prompts for the username, also with 'phkoan' entered. The bottom window prompts for a password, with '*****' shown, and includes a checkbox for 'Show Password in Clear'.

[!!] Set up users and passwords

A user account will be created for you to use instead of the root account for non-administrative activities.

Please enter the real name of this user. This information will be used for instance as default origin for emails sent by this user as well as any program which displays or uses the user's real name. Your full name is a reasonable choice.

Full name for the new user:

phkoan

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[!!] Set up users and passwords

Select a username for the new account. Your first name is a reasonable choice. The username should start with a lower-case letter, which can be followed by any combination of numbers and more lower-case letters.

Username for your account:

phkoan

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[!!] Set up users and passwords

Make sure to select a strong password that cannot be guessed.

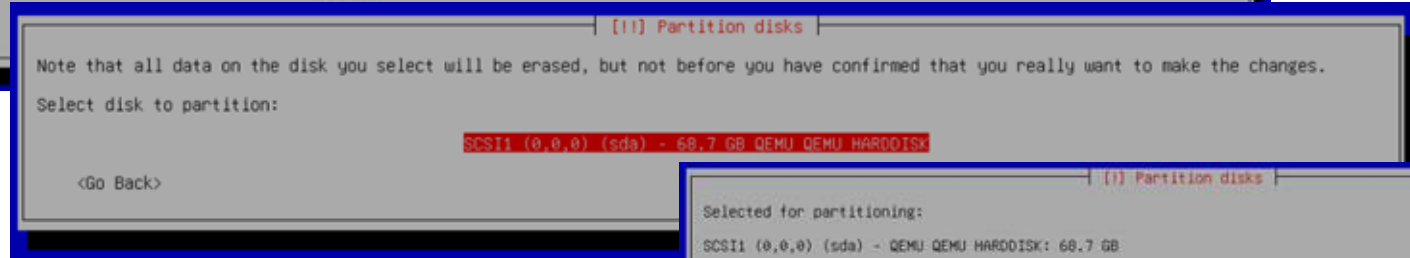
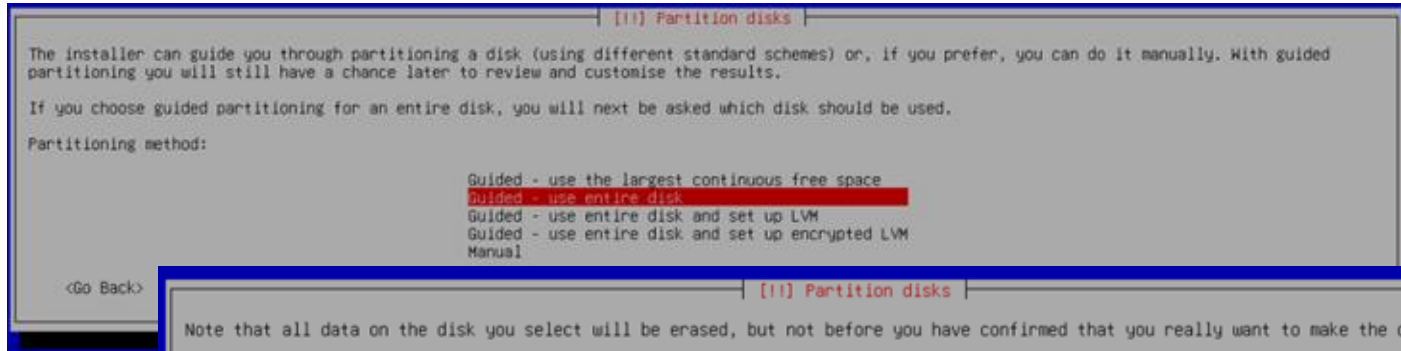
Choose a password for the new user:

[] Show Password in Clear

<Go Back> <Continue>

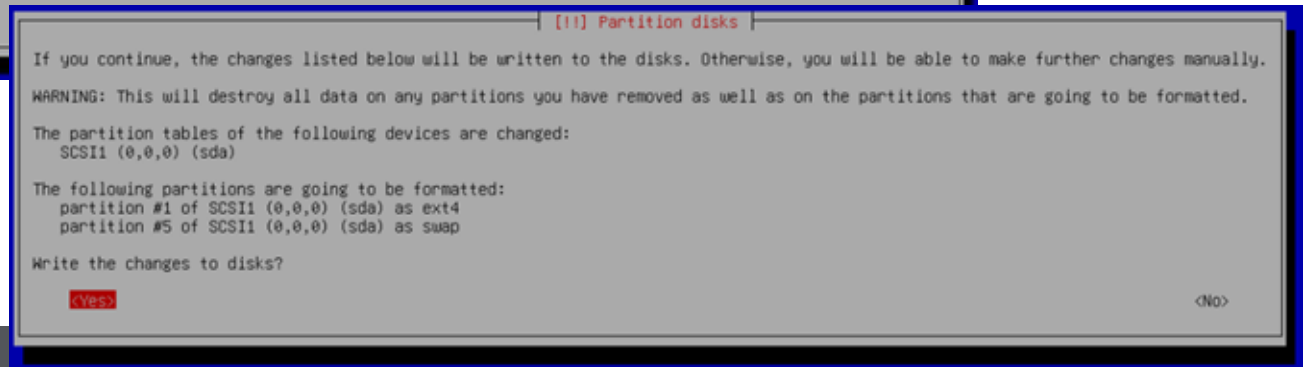
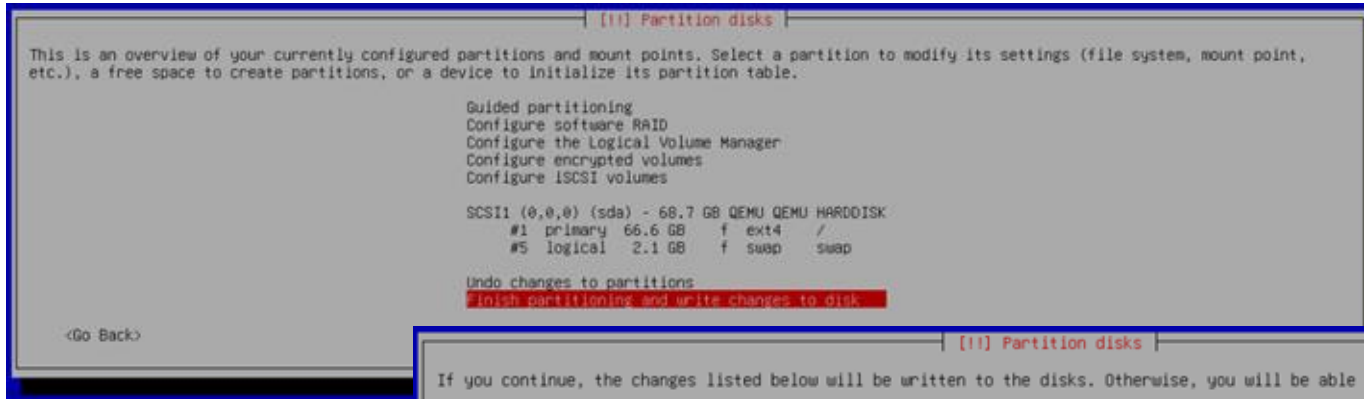
Disk Partitioning

For a dedicated VM, choose "Guided - use entire disk".



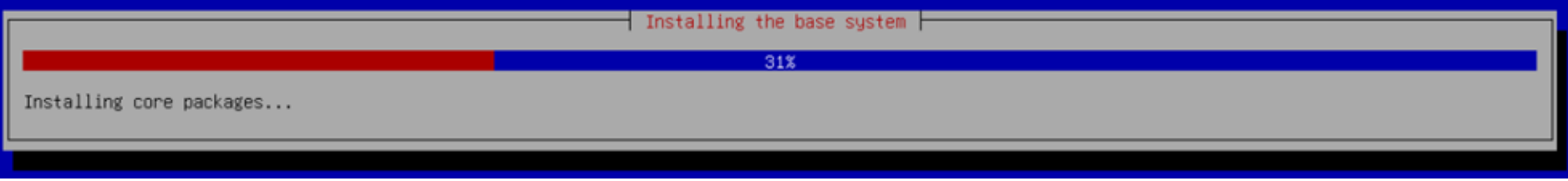
Disk Partitioning

Choose "Finish partitioning and write changes to disk".



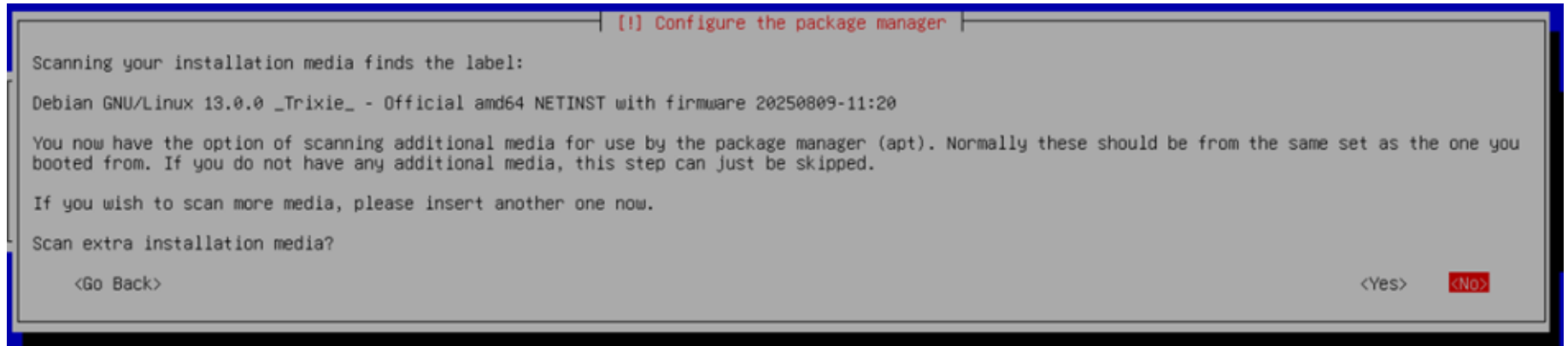
Base System Installation

- Wait while the base system is installed.



Extra Installation Media

Skip additional installation media for this exercise.



```
[!] Configure the package manager

Scanning your installation media finds the label:

Debian GNU/Linux 13.0.0 _Trixie_ - Official amd64 NETINST with firmware 20250809-11:20

You now have the option of scanning additional media for use by the package manager (apt). Normally these should be from the same set as the one you
booted from. If you do not have any additional media, this step can just be skipped.

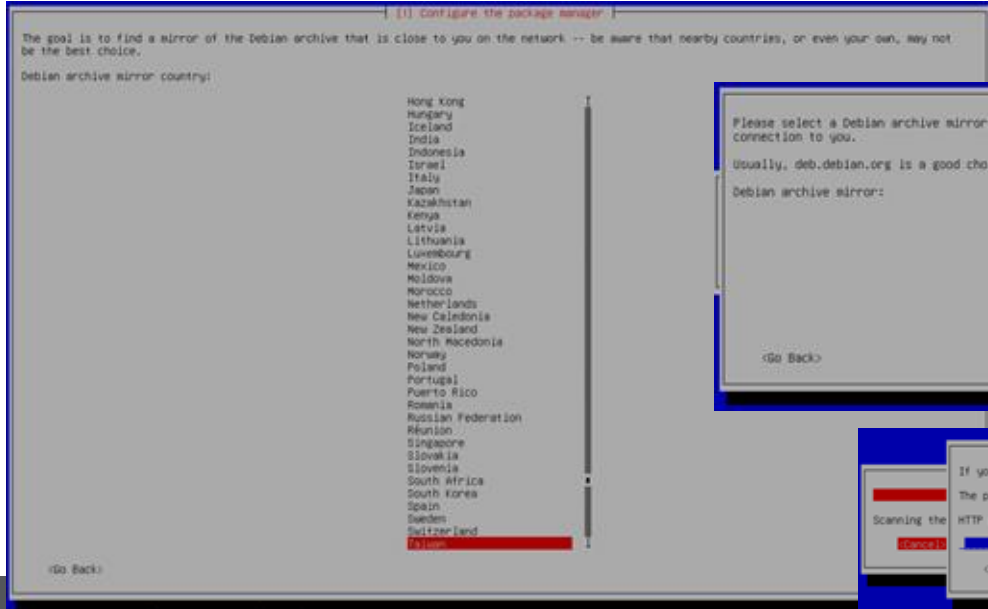
If you wish to scan more media, please insert another one now.

Scan extra installation media?

<Go Back>                                     <Yes> <No>
```

Package Mirror Selection

- Choose debian.cs.nycu.edu.tw as the Debian mirror.
- Leave the HTTP proxy blank unless your network requires one.



Popularity Contest Survey

Either choice is fine for this course.

```
[!] Configuring popularity-contest

The system may anonymously supply the distribution developers with statistics about the most used packages on this system. This information influences decisions such as which packages should go on the first distribution CD.

If you choose to participate, the automatic submission script will run once every week, sending statistics to the distribution developers. The collected statistics can be viewed on https://popcon.debian.org/.

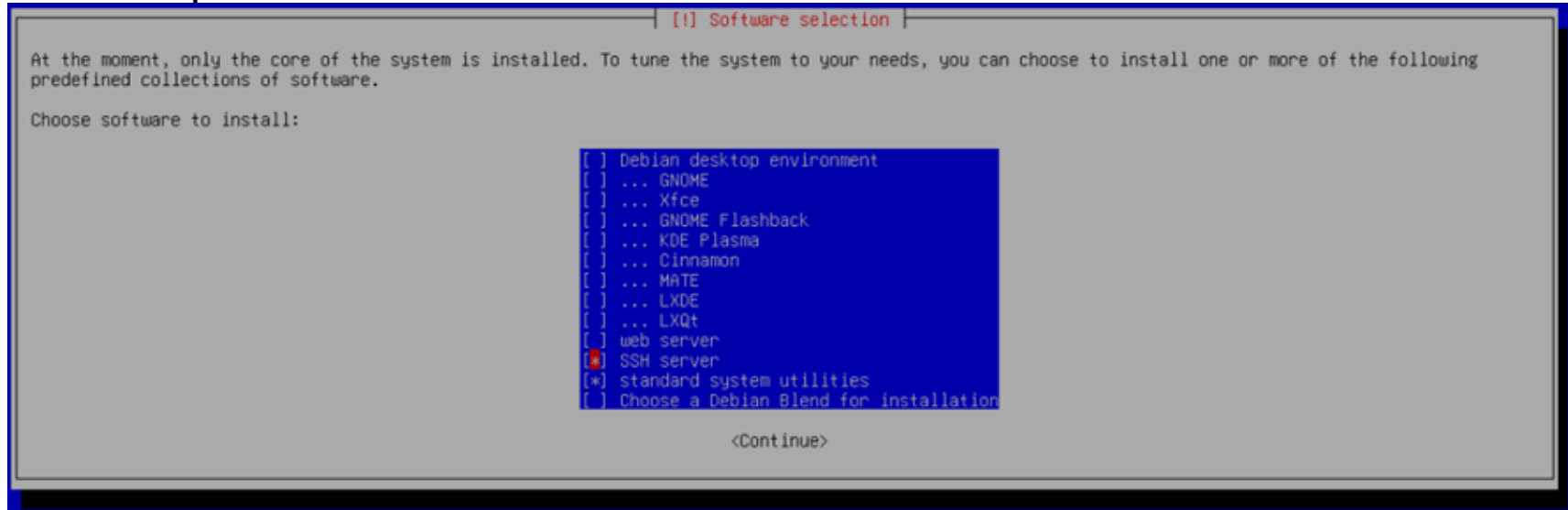
This choice can be later modified by running "dpkg-reconfigure popularity-contest".

Participate in the package usage survey?

<Yes> <No>
```

Software Selection

- Select SSH server and standard system utilities.
- A desktop environment is optional; omitting it saves CPU, memory, and disk space.



```
[!] Software selection

At the moment, only the core of the system is installed. To tune the system to your needs, you can choose to install one or more of the following predefined collections of software.

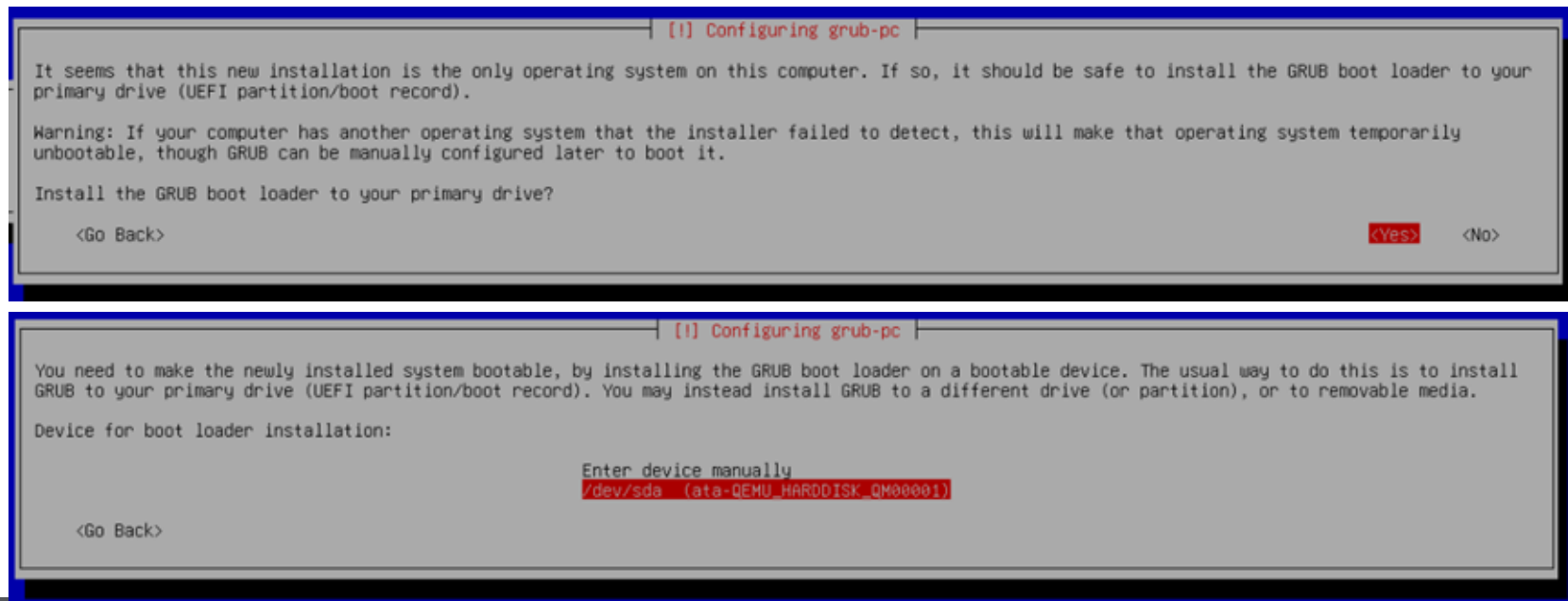
Choose software to install:

[ ] Debian desktop environment
[ ] ... GNOME
[ ] ... Xfce
[ ] ... GNOME Flashback
[ ] ... KDE Plasma
[ ] ... Cinnamon
[ ] ... MATE
[ ] ... LXDE
[ ] ... LXQt
[ ] web server
[*] SSH server
[*] standard system utilities
[ ] Choose a Debian Blend for installation

<Continue>
```

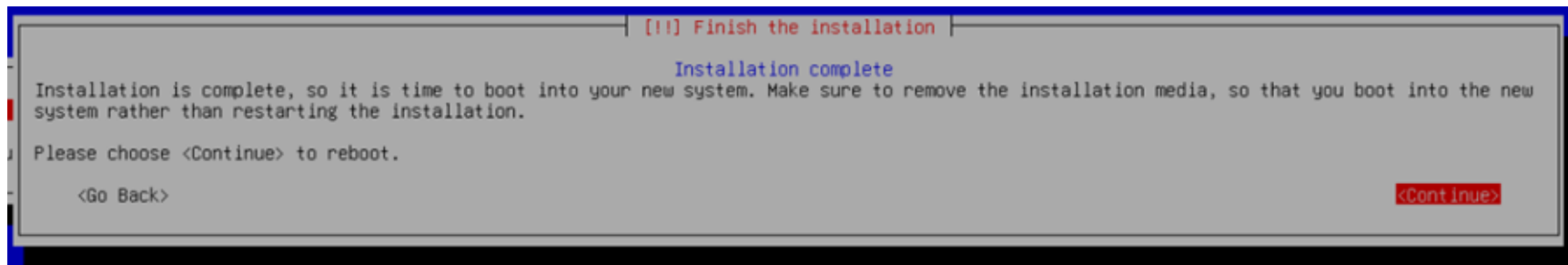
GRUB Installation

Install the GRUB boot loader on the primary drive.



Finishing Installation

Choose "Continue" to reboot into the new system.



```
Debian GNU/Linux 13 nasa tty1
nasa login: phkoan
Password:
Linux nasa 6.12.41+deb13-amd64 #1 SMP PREEMPT_DYNAMIC Debian 6.12.41-1 (2025-08-12) x86_64

The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
phkoan@nasa:~$
```