

```
root@8dac0b9fe0c9: /
Microsoft Windows [Version 10.0.26100.3476]
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C:\Users\ASUS>docker run -it ubuntu /bin/bash
root@f2a08e99417d:/# useradd -m -d /home/devuser -s /bin/bash -c "Developer User" devuser
root@f2a08e99417d:/# groupadd developers
root@f2a08e99417d:/# usermod -aG developers devuser
root@f2a08e99417d:/# grep "devuser" /etc/passwd
devuser:x:1001:1001:Developer User:/home/devuser:/bin/bash
root@f2a08e99417d:/# grep "developers" /etc/passwd
root@f2a08e99417d:/# groups devuser
devuser : devuser developers
root@f2a08e99417d:/# su - devuser
devuser@f2a08e99417d:~$ mkdir ~/projects
devuser@f2a08e99417d:~$ chmod 770 ~/projects
devuser@f2a08e99417d:~$ ls -ld ~/projects
drwxrwx--- 2 devuser devuser 4096 Apr  3 07:59 /home/devuser/projects
devuser@f2a08e99417d:~$ su - devuser
Password:
su: Authentication failure
devuser@f2a08e99417d:~$ exit
logout
root@f2a08e99417d:/# su - devuser
devuser@f2a08e99417d:~$ nohup sleep 1000 &
[1] 48
devuser@f2a08e99417d:~$ nohup: ignoring input and appending output to 'nohup.out'
devuser@f2a08e99417d:~$ ps aux | grep sleep
devuser  48  0.0  0.0  3124 1080 pts/0    S   08:03   0:00 sleep 1000
devuser  50  0.0  0.0  3956 1880 pts/0    S+  08:04   0:00 grep --color=auto sleep
devuser@f2a08e99417d:~$ kill <PID>
-bash: syntax error near unexpected token `newline'
devuser@f2a08e99417d:~$ exit
logout
root@f2a08e99417d:/# nohup sleep 1000 &
[1] 52
root@f2a08e99417d:/# nohup: ignoring input and appending output to 'nohup.out'

root@f2a08e99417d:/# ps aux | grep sleep
devuser  48  0.0  0.0  3124 1080 pts/0    S   08:03   0:00 sleep 1000
root      52  0.0  0.0  2696 1068 pts/0    S   08:04   0:00 sleep 1000
root      54  0.0  0.0  3528 1608 pts/0    S+  08:05   0:00 grep --color=auto sleep
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root@8dac0b9fe0c9: /
root@f2a08e99417d: /# nohup: ignoring input and appending output to 'nohup.out'

root@f2a08e99417d: /# ps aux | grep sleep
devuser  48  0.0  0.0  3124 1080 pts/0    S   08:03   0:00  sleep 1000
root     52  0.0  0.0  2696 1068 pts/0    S   08:04   0:00  sleep 1000
root     54  0.0  0.0  3528 1608 pts/0    S+  08:05   0:00  grep --color=auto sleep
root@f2a08e99417d: /# kill <PID>
bash: syntax error near unexpected token 'newline'
root@f2a08e99417d: /# ps aux | grep sleep
devuser  48  0.0  0.0  3124 1080 pts/0    S   08:03   0:00  sleep 1000
root     52  0.0  0.0  2696 1068 pts/0    S   08:04   0:00  sleep 1000
root     56  0.0  0.0  3528 1628 pts/0    S+  08:06   0:00  grep --color=auto sleep
root@f2a08e99417d: /# su - devuser
devuser@f2a08e99417d: ~$ nano ~/projects/hello.sh
-bash: nano: command not found
devuser@f2a08e99417d: ~$ vim a
-bash: vim: command not found
devuser@f2a08e99417d: ~$ apt update nano
E: The update command takes no arguments
devuser@f2a08e99417d: ~$ apt update
Reading package lists... Done
E: List directory /var/lib/apt/lists/partial is missing. - Acquire (13: Permission denied)
devuser@f2a08e99417d: ~$ exit
logout
root@f2a08e99417d: /# nano ~/projects/hello.sh
bash: nano: command not found
root@f2a08e99417d: /# apt update nano
E: The update command takes no arguments
root@f2a08e99417d: /# apt update
Get:1 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]
Get:2 http://archive.ubuntu.com/ubuntu noble InRelease [256 kB]
Get:3 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [1068 kB]
Get:4 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]
Get:5 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]
Get:6 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [1068 kB]
Get:7 http://archive.ubuntu.com/ubuntu noble/universe amd64 Packages [19.3 MB]
Get:8 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [920 kB]
Get:9 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [21.9 kB]
Get:10 http://archive.ubuntu.com/ubuntu noble/main amd64 Packages [1808 kB]
Get:11 http://archive.ubuntu.com/ubuntu noble/restricted amd64 Packages [117 kB]
Get:12 http://archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [331 kB]
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root@8dac0b9fe0c9: /
update-alternatives: using /bin/nano to provide /usr/bin/pico (pico) in auto mode
update-alternatives: warning: skip creation of /usr/share/man/man1/pico.1.gz because associated file /usr/share/man/man1/nano.1.gz (of link group pico) does
n't exist
root@f2a08e99417d:/# nano ~/projects/hello.sh
root@f2a08e99417d:/# nano /projects/hello.sh
root@f2a08e99417d:/# nano ~/projects/hello.sh
root@f2a08e99417d:/# mkdir /projects/hello.sh
mkdir: cannot create directory '/projects/hello.sh': No such file or directory
root@f2a08e99417d:/# mkdir ~/projects/hello.sh
mkdir: cannot create directory '/root/projects/hello.sh': No such file or directory
root@f2a08e99417d:/# mkdir -p ~/projects
root@f2a08e99417d:/# touch ~/projects/hello.sh
root@f2a08e99417d:/# nano ~/projects/hello.sh
root@f2a08e99417d:/# chmod +x ~/projects/hello.sh
root@f2a08e99417d:/# crontab -e
bash: crontab: command not found
root@f2a08e99417d:/# apt update
Hit:1 http://archive.ubuntu.com/ubuntu noble InRelease
Hit:2 http://archive.ubuntu.com/ubuntu noble-updates InRelease
Hit:3 http://archive.ubuntu.com/ubuntu noble-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu noble-security InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
25 packages can be upgraded. Run 'apt list --upgradable' to see them.
root@f2a08e99417d:/# apt install cron -y
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  adduser bsdutils ca-certificates cron-daemon-common dbus dbus-bin dbus-daemon dbus-session-bus-common dbus-system-bus-common dmsetup
  gir1.2-girepository-2.0 gir1.2-glib-2.0 libapparmor1 libargon2-1 libblkid1 libcryptsetup12 libdbus-1-3 libdevmapper1.02.1 libexpat1 libfdisk1
  libgirepository-1.0-1 libglib2.0-0t64 libglib2.0-data libcrypt1 libcryptsetup12 libkmod2 libmount1 libpython3-stdlib libpython3.12-minimal
  libpython3.12-stdlib libreadline8t64 libsmartcols1 libsqlite3-0 libssl3t64 libsystemd-shared libsystemd0 libudev1 libuuid1 libxml2 media-types mount
  netbase networkd-dispatcher openssl python3 python3-dbus python3-gi python3-minimal python3.12 python3.12-minimal readline-common shared-mime-info
  systemd systemd-dev systemd-resolved systemd-timesyncd tzdata util-linux xdg-user-dirs
Suggested packages:
  liblocale-gettext-perl perl quota ecryptfs-utils anacron logrotate checksecurity supercat default-mta | mail-transport-agent default-dbus-session-bus
  | dbus-session-bus low-memory-monitor cryptsetup-bin nfs-common iw | wireless-tools python3-doc python3-tk python3-venv python-dbus-doc python3.12-venv
  python3.12-doc binutils binfmt-support readline-doc systemd-container systemd-homed systemd-userdbd systemd-boot libfido2-1 libip4tc2 libqrencode4
  libtss2-esys-3.0.2-0 libtss2-mu-4.0.1-0 libtss2-rc0 libtss2-tcti-device0 polkitd dosfstools kbd util-linux-extra util-linux-locales
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root@8dac0b9fe0c9: /
Setting up python3-dbus (1.3.2-5build3) ...
Setting up networkd-dispatcher (2.2.4-1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/networkd-dispatcher.service → /usr/lib/systemd/system/networkd-dispatcher.service.
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...
Processing triggers for ca-certificates (20240203) ...
Updating certificates in /etc/ssl/certs...
0 added, 0 removed; done.
Running hooks in /etc/ca-certificates/update.d...
done.
root@f2a08e99417d:/# crontab -e
no crontab for root - using an empty one
crontab: installing new crontab
[1]+  Done                  nohup sleep 1000
root@f2a08e99417d:/# crontab -e
crontab: installing new crontab
"/tmp/crontab.rRnjTd/crontab":2: bad minute
errors in crontab file, can't install.
Do you want to retry the same edit? (y/n) n
crontab: edits left in /tmp/crontab.rRnjTd/crontab
root@f2a08e99417d:/# exit
exit

C:\Users\ASUS>docker run -it ubuntu /bin/bash
root@8dac0b9fe0c9:/# free -h
              total        used        free      shared  buff/cache   available
Mem:           7.6Gi        833Mi        6.6Gi         4.8Mi        420Mi        6.8Gi
Swap:          2.0Gi           0B         2.0Gi

root@8dac0b9fe0c9:/# top
top - 08:26:52 up 40 min,  0 user,  load average: 0.15, 0.14, 0.09
Tasks:  2 total,   1 running,   1 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.0 us,   0.0 sy,   0.0 ni,100.0 id,   0.0 wa,   0.0 hi,   0.0 si,   0.0 st
MiB Mem :  7792.3 total,  6768.2 free,   841.1 used,   421.3 buff/cache
MiB Swap:  2048.0 total,  2048.0 free,    0.0 used,  6951.2 avail Mem

  PID USER      PR  NI   VIRT   RES   SHR  S  %CPU  %MEM     TIME+ COMMAND
   10 root        20   0    8.6m   4.9m   2.8m  R   0.0   0.1   0:00.04 top
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root@8dac0b9fe0c9: /
Setting up python3.12 (3.12.3-1ubuntu0.5) ...
Setting up libpython3-stdlib:amd64 (3.12.3-0ubuntu2) ...
Setting up python3 (3.12.3-0ubuntu2) ...
running python rtupdate hooks for python3.12...
running python post-rtupdate hooks for python3.12...
Setting up python3-gi (3.48.2-1) ...
Setting up python3-dbus (1.3.2-5build3) ...
Setting up networkd-dispatcher (2.2.4-1) ...
Created symlink /etc/systemd/system/multi-user.target.wants/networkd-dispatcher.service → /usr/lib/systemd/system/networkd-dispatcher.service.
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...
Processing triggers for ca-certificates (20240203) ...
Updating certificates in /etc/ssl/certs...
0 added, 0 removed; done.
Running hooks in /etc/ca-certificates/update.d...
done.
root@f2a08e99417d: /# crontab -e
no crontab for root - using an empty one
crontab: installing new crontab
[1]+  Done                  nohup sleep 1000
root@f2a08e99417d: /# crontab -e
crontab: installing new crontab
"/tmp/crontab.rRnJTd/crontab":2: bad minute
errors in crontab file, can't install.
Do you want to retry the same edit? (y/n) n
crontab: edits left in /tmp/crontab.rRnJTd/crontab
root@f2a08e99417d: /# exit
exit

C:\Users\ASUS>docker run -it ubuntu /bin/bash
root@8dac0b9fe0c9: /# free -h
              total        used         free       shared  buff/cache   available
Mem:          7.6Gi        833Mi        6.6Gi         4.8Mi        420Mi        6.8Gi
Swap:          2.0Gi           0B         2.0Gi

root@8dac0b9fe0c9: /# top
top - 08:26:52 up 40 min,  0 user,  load average: 0.15, 0.14, 0.09
Tasks:  2 total,   1 running,   1 sleeping,   0 stopped,   0 zombie
%Cpu(s):  0.0 us,   0.0 sy,   0.0 ni,100.0 id,   0.0 wa,   0.0 hi,   0.0 si,   0.0 st
MiB Mem :  7792.3 total,  6768.2 free,   841.1 used,   421.3 buff/cache
MiB Swap:  2048.0 total,  2048.0 free,    0.0 used,  6951.2 avail Mem

  PID USER      PR  NI   VIRT   RES    SHR S  %CPU  %MEM    TIME+  COMMAND
  1    root      20   0    12K    8K     0 S   0.0   0.0   0:00.0  sh
```



root@8dac0b9fe0c9: /

root@8dac0b9fe0c9: /# apt update

Get:1 http://archive.ubuntu.com/ubuntu noble InRelease [256 kB]  
Get:2 http://security.ubuntu.com/ubuntu noble-security InRelease [126 kB]  
Get:3 http://archive.ubuntu.com/ubuntu noble-updates InRelease [126 kB]  
Get:4 http://security.ubuntu.com/ubuntu noble-security/multiverse amd64 Packages [21.9 kB]  
Get:5 http://archive.ubuntu.com/ubuntu noble-backports InRelease [126 kB]  
Get:6 http://security.ubuntu.com/ubuntu noble-security/main amd64 Packages [920 kB]  
Get:7 http://archive.ubuntu.com/ubuntu noble/main amd64 Packages [1808 kB]  
Get:8 http://security.ubuntu.com/ubuntu noble-security/universe amd64 Packages [1068 kB]  
Get:9 http://archive.ubuntu.com/ubuntu noble/restricted amd64 Packages [117 kB]  
Get:10 http://archive.ubuntu.com/ubuntu noble/multiverse amd64 Packages [331 kB]  
Get:11 http://security.ubuntu.com/ubuntu noble-security/restricted amd64 Packages [1068 kB]  
Get:12 http://archive.ubuntu.com/ubuntu noble/universe amd64 Packages [19.3 MB]  
Get:13 http://archive.ubuntu.com/ubuntu noble-updates/multiverse amd64 Packages [26.4 kB]  
Get:14 http://archive.ubuntu.com/ubuntu noble-updates/universe amd64 Packages [1362 kB]  
Get:15 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 Packages [1244 kB]  
Get:16 http://archive.ubuntu.com/ubuntu noble-updates/restricted amd64 Packages [1112 kB]  
Get:17 http://archive.ubuntu.com/ubuntu noble-backports/universe amd64 Packages [30.9 kB]  
Get:18 http://archive.ubuntu.com/ubuntu noble-backports/main amd64 Packages [48.0 kB]  
Fetched 29.1 MB in 25s (1181 kB/s)  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
25 packages can be upgraded. Run 'apt list --upgradable' to see them.  
root@8dac0b9fe0c9: /# apt install htop  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following additional packages will be installed:  
 libnl-3-200 libnl-genl-3-200  
Suggested packages:  
 lm-sensors lsof strace  
The following NEW packages will be installed:  
 htop libnl-3-200 libnl-genl-3-200  
0 upgraded, 3 newly installed, 0 to remove and 25 not upgraded.  
Need to get 238 kB of archives.  
After this operation, 665 kB of additional disk space will be used.  
Do you want to continue? [Y/n] y  
Get:1 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libnl-3-200 amd64 3.7.0-0.3build1.1 [55.7 kB]  
Get:2 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libnl-genl-3-200 amd64 3.7.0-0.3build1.1 [12.2 kB]  
Get:3 http://archive.ubuntu.com/ubuntu noble/main amd64 htop amd64 3.3.0-4build1 [171 kB]

Snipping Tool

Screenshot copied to clipboard  
Automatically saved to screenshots folder.

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root@8dac0b9fe0c9: /  
25 packages can be upgraded. Run 'apt list --upgradable' to see them.  
root@8dac0b9fe0c9: /# apt install htop  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following additional packages will be installed:  
  libnl-3-200 libnl-genl-3-200  
Suggested packages:  
  lm-sensors lsof strace  
The following NEW packages will be installed:  
  htop libnl-3-200 libnl-genl-3-200  
0 upgraded, 3 newly installed, 0 to remove and 25 not upgraded.  
Need to get 238 kB of archives.  
After this operation, 665 kB of additional disk space will be used.  
Do you want to continue? [Y/n] y  
Get:1 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libnl-3-200 amd64 3.7.0-0.3build1.1 [55.7 kB]  
Get:2 http://archive.ubuntu.com/ubuntu noble-updates/main amd64 libnl-genl-3-200 amd64 3.7.0-0.3build1.1 [12.2 kB]  
Get:3 http://archive.ubuntu.com/ubuntu noble/main amd64 htop amd64 3.3.0-4build1 [171 kB]  
Fetched 238 kB in 3s (89.4 kB/s)  
debconf: delaying package configuration, since apt-utils is not installed  
Selecting previously unselected package libnl-3-200:amd64.  
(Reading database ... 4379 files and directories currently installed.)  
Preparing to unpack .../libnl-3-200_3.7.0-0.3build1.1_amd64.deb ...  
Unpacking libnl-3-200:amd64 (3.7.0-0.3build1.1) ...  
Selecting previously unselected package libnl-genl-3-200:amd64.  
Preparing to unpack .../libnl-genl-3-200_3.7.0-0.3build1.1_amd64.deb ...  
Unpacking libnl-genl-3-200:amd64 (3.7.0-0.3build1.1) ...  
Selecting previously unselected package htop.  
Preparing to unpack .../htop_3.3.0-4build1_amd64.deb ...  
Unpacking htop (3.3.0-4build1) ...  
Setting up libnl-3-200:amd64 (3.7.0-0.3build1.1) ...  
Setting up libnl-genl-3-200:amd64 (3.7.0-0.3build1.1) ...  
Setting up htop (3.3.0-4build1) ...  
Processing triggers for libc-bin (2.39-0ubuntu8.3) ...  
root@8dac0b9fe0c9: /# htop  
root@8dac0b9fe0c9: /# apt remove htop  
Reading package lists... Done  
Building dependency tree... Done  
Reading state information... Done  
The following packages were automatically installed and are no longer required:  
  libnl-3-200 libnl-genl-3-200
```