

Nama Kelompok 3 : Desta Anggrizy\_09040582226006\_TKJ3 (master)

Siti Zulaika\_09030582226028\_TK3B (slave 1)

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Activities Terminal Des 3 15:24 mpiuser1@sitzulaika: ~

sttizulaika@sitzulaika:~$ sudo apt update
[sudo] password for sttizulaika:
Hit:1 http://id.archive.ubuntu.com/ubuntu jammy InRelease
Hit:2 http://id.archive.ubuntu.com/ubuntu jammy-updates InRelease
Hit:3 http://security.ubuntu.com/ubuntu jammy-security InRelease
Hit:4 http://id.archive.ubuntu.com/ubuntu jammy-backports InRelease
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
134 packages can be upgraded. Run 'apt list --upgradable' to see them.
sttizulaika@sitzulaika:~$ hostname -I
Command 'hostname' not found, did you mean:
  command 'hostname' from deb hostname (3.23ubuntu2)
Try: sudo apt install <deb name>
sttizulaika@sitzulaika:~$ sudo apt install update
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
E: Unable to locate package update
sttizulaika@sitzulaika:~$ hostname -I
Command 'hostname' not found, did you mean:
  command 'hostname' from deb hostname (3.23ubuntu2)
Try: sudo apt install <deb name>
sttizulaika@sitzulaika:~$ hostname -I
10.0.2.15
sttizulaika@sitzulaika:~$ sudo adduser mpiuser
Adding user 'mpiuser' ...
Adding new group 'mpiuser' (1001) ...
Adding new user 'mpiuser' (1001) with group 'mpiuser' ...
Creating home directory '/home/mpiuser' ...
Copying files from '/etc/skel' ...
New password:
BAD PASSWORD: The password is a palindrome
Retype new password:
passwd: password updated successfully
Changing the user information for mpiuser
Enter the new value, or press ENTER for the default
  Full Name []: mpiuser1
    Room Number []: 1
    Work Phone []: 1
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Activities Terminal Des 3 18:43 mpiuser1@sitzulaika: ~

sttizulaika@sitzulaika:~$ su - mpiuser1
Password:
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.

mpiuser1@sitzulaika:~$ sudo apt update && sudo apt upgrade
[sudo] password for mpiuser1:
Hit:1 http://id.archive.ubuntu.com/ubuntu jammy InRelease
Get:2 http://id.archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Hit:3 http://id.archive.ubuntu.com/ubuntu jammy-backports InRelease
Hit:4 http://security.ubuntu.com/ubuntu jammy-security InRelease
Fetched 119 kB in 1s (122 kB/s)
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
134 packages can be upgraded. Run 'apt list --upgradable' to see them.
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
Calculating upgrade... Done
The following NEW packages will be installed:
  ubuntu-pro-client-l10n
The following packages have been kept back:
  gjs libgjs9g
The following packages will be upgraded:
  alsa-ucm-conf amd64-microcode apparmor apt apt-utils avahi-autoipd
  avahi-daemon avahi-utils bind9-dnsutils bind9-host bind9-libs cups cups-bsd
  cups-client cups-common cups-core-drivers cups-daemon cups-lpp-utils
  cups-ppdc cups-server-common distro-info-data evince evince-common file
  firmware-sof-signed ghostscript ghostscript-x gir1.2-javascriptcoregtk-4.0
  gir1.2-mutter-10 gir1.2-webkit2-4.0 gnome-remote-desktop intramfs-tools
  intramfs-tools-bin intramfs-tools-core intel-microcode irqbalance
  libapparmor1 libapt-pkg6.0 libavahi-client3 libavahi-common-data
  libavahi-common3 libavahi-core7 libavahi-glib1 libavahi-ui-gtk3-0 libcb-bin
  libcb6 libcb6-dbg libcue2 libcupsp2 libcupslimage2 libcurl3-gnutls libcurl4
  libevdevdocument3-4 libevview3-3 libflac8 libfprint-2-2 libfreerdp-client2-2
  libfreerdp-server2-2 libfreerdp2-2 libgnutls30 libgs9 libgs9-common
  libgssapi-krb5-2 libjavascriptcoregtk-4.0-10 libjson-c5 libksmtp3
  libkrb5-3 libkrb5support0 libldap-2.5-0 libldap-common libmagic-mgc
  libmagic1 libmutter-10-0 libnetplan0 libnghttp2-14 libperl5.34
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Activities Terminal Des 3 18:44 mpiuser1@stitzulaika: ~

Processing triggers for libc-bin (2.35-0ubuntu3.4) ...
mpiuser1@stitzulaika:~$ hostname -I
10.0.2.15
mpiuser1@stitzulaika:~$ sudo apt install net-tools vim
[sudo] password for mpiuser1:
Reading package lists... Done
Building dependency tree... Done
Reading state information... Done
The following additional packages will be installed:
  vim-runtime
Suggested packages:
  ctags vim-doc vim-scripts
The following NEW packages will be installed:
  net-tools vim vim-runtime
0 upgraded, 3 newly installed, 0 to remove and 2 not upgraded.
Need to get 8.773 kB of archives.
After this operation, 38,4 MB of additional disk space will be used.
Do you want to continue? [Y/n] y
Get:1 http://id.archive.ubuntu.com/ubuntu jammy/main amd64 net-tools amd64 1.60+git20181103.0eebece-1ubuntu5 [204 kB]
Get:2 http://id.archive.ubuntu.com/ubuntu jammy-updates/main amd64 vim-runtime all 2:8.2.3995-1ubuntu2.13 [6.834 kB]
Get:3 http://id.archive.ubuntu.com/ubuntu jammy-updates/main amd64 vim amd64 2:8.2.3995-1ubuntu2.13 [1.734 kB]
Fetched 8.773 kB in 16s (560 kB/s)
Selecting previously unselected package net-tools.
(Reading database ... 200260 files and directories currently installed.)
Preparing to unpack .../net-tools_1.60+git20181103.0eebece-1ubuntu5_amd64.deb ...
Unpacking net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Selecting previously unselected package vim-runtime.
Preparing to unpack .../vim-runtime_2:8.2.3995-1ubuntu2.13_all.deb ...
Adding diversion of /usr/share/vim/vim82/doc/help.txt to /usr/share/vim/vim82/doc/help.txt.vim-runtime
Adding diversion of /usr/share/vim/vim82/doc/tags to /usr/share/vim/vim82/doc/tags.vim-runtime by vim-runtime
Unpacking vim-runtime (2:8.2.3995-1ubuntu2.13) ...
Selecting previously unselected package vim.
Preparing to unpack .../vim_2:8.2.3995-1ubuntu2.13_amd64.deb ...
Unpacking vim (2:8.2.3995-1ubuntu2.13) ...
Setting up net-tools (1.60+git20181103.0eebece-1ubuntu5) ...
Setting up vim-runtime (2:8.2.3995-1ubuntu2.13) ...
Setting up vim (2:8.2.3995-1ubuntu2.13) ...
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Activities Terminal Des 3 18:45 mpiuser1@stitzulaika: ~

update-alternatives: using /usr/bin/fakeroot-sysv to provide /usr/bin/fakeroot (
fakeroot) in auto mode
Setting up libxpat1-dev:amd64 (2.4.7-1ubuntu0.2) ...
Setting up make (4.3-4.1build1) ...
Setting up libpython3.10-dev:amd64 (3.10.12-1-22.04.3) ...
Setting up python3-pip (22.0.2+dfsg-1ubuntu0.4) ...
Setting up libdpkg-perl (1.21.1ubuntu2.2) ...
Setting up libstdc++-11-dev:amd64 (11.4.0-1ubuntu1-22.04) ...
Setting up python3.10-dev (3.10.12-1-22.04.3) ...
Setting up libalgorithm-diff-xs-perl (0.04-6build3) ...
Setting up libjs-underscore (1.13.2-dfsg-2) ...
Setting up libalgorithm-merge-perl (0.08-3) ...
Setting up libpython3-dev:amd64 (3.10.6-1-22.04) ...
Setting up g++-11 (11.4.0-1ubuntu1-22.04) ...
Setting up dpkg-dev (1.21.1ubuntu2.2) ...
Setting up libjs-sphinxdoc (4.3.2-1) ...
Setting up g++ (4:11.2.0-1ubuntu1) ...
update-alternatives: using /usr/bin/g++ to provide /usr/bin/c++ (c++) in auto mo
de
Setting up build-essential (12.9ubuntu3) ...
Setting up python3-dev (3.10.6-1-22.04) ...
Processing triggers for man-db (2.10.2-1) ...
Processing triggers for libc-bin (2.35-0ubuntu3.4) ...
mpiuser1@stitzulaika:~$ pip install mpi4py
Defaulting to user installation because normal site-packages is not writeable
Collecting mpi4py
  Downloading mpi4py-3.1.5.tar.gz (2.5 MB)
    Installing build dependencies ... done
    Getting requirements to build wheel ... done
    Preparing metadata (pyproject.toml) ... done
Building wheels for collected packages: mpi4py
  Building wheel for mpi4py (pyproject.toml) ... done
    Created wheel for mpi4py: filename=mpi4py-3.1.5-cp310-linux_x86_64.whl size=2746514 sha256=395b0e1cb0af460ae86885f881c9055b3
4e3107b6cfa22664c4e777e0639d348
    Stored in directory: /home/mpiuser1/.cache/pip/wheels/18/2b/7f/c852523089e9182b45fca50ff56f49a51eeb6284fd25a66713
Successfully built mpi4py
Installing collected packages: mpi4py
Successfully installed mpi4py-3.1.5
mpiuser1@stitzulaika:~$
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## Kesimpulan dari slave 1 :

Dalam konteks MPI, "slave" merujuk pada node-node yang menerima tugas atau pekerjaan untuk dieksekusi dalam suatu sistem paralel. Dengan mengkonfigurasi Ubuntu di VirtualBox sebagai "slave 1," Dalam hal ini memungkinkan mesin virtual ini untuk berpartisipasi dalam komputasi terdistribusi yang dikelola oleh MPI. Setiap node dapat menerima tugas dari "master" dan berkontribusi pada pemrosesan paralel, meningkatkan kinerja sistem secara keseluruhan.