

**LAPORAN SISTEM DAN APLIKASI VIRTUAL
TUGAS INSTALLASI VM DAN CT MENGGUNAKAN
INTERFACE CLI DI PROXMOX**

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INSTALLASI VM DAN CONTAINER MENGGUNAKAN INTERFACE CLI DI PROXMOX

1. Update template container dengan perintah 'pveam update'

```
Linux proxmox 6.8.4-2-pve #1 SMP PREEMPT_DYNAMIC PMX 6.8.4-2 (2024-04-10T17:36Z) x86_64

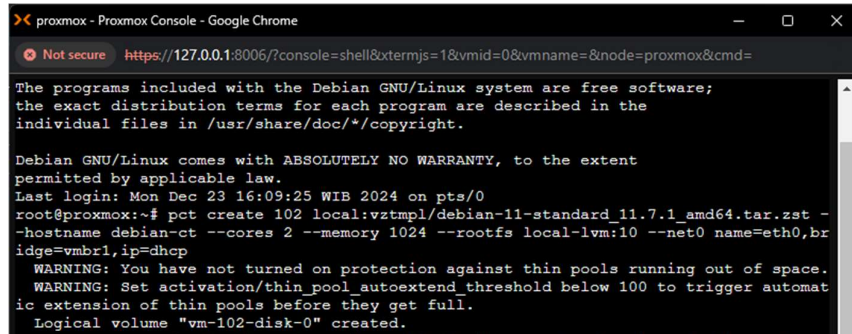
The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.

Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
Last login: Mon Nov 11 15:00:52 WIB 2024 on tty1
root@proxmox:~# pveam update
update successful
```

2. Menampilkan template container dengan perintah 'pveam available'

```
root@proxmox:~# pveam available
mail proxmox-mail-gateway-8.1-standard_8.1-1_amd64.tar.zst
mail proxmox-mailgateway-7.3-standard_7.3-1_amd64.tar.zst
system almalinux-9-default_20240911_amd64.tar.xz
system alpine-3.18-default_20230607_amd64.tar.xz
system alpine-3.19-default_20240207_amd64.tar.xz
system alpine-3.20-default_20240908_amd64.tar.xz
system archlinux-base_20240911-1_amd64.tar.zst
system centos-9-stream-default_20240828_amd64.tar.xz
system debian-11-standard_11.7-1_amd64.tar.zst
system debian-12-standard_12.7-1_amd64.tar.zst
system devuan-5.0-standard_5.0_amd64.tar.gz
system fedora-40-default_20240909_amd64.tar.xz
system fedora-41-default_20241118_amd64.tar.xz
system gentoo-current-openrc_20231009_amd64.tar.xz
system openeuler-24.09-default_20241118_amd64.tar.xz
system opensuse-15.5-default_20231118_amd64.tar.xz
system opensuse-15.6-default_20240910_amd64.tar.xz
system rockylinux-9-default_20240912_amd64.tar.xz
system ubuntu-20.04-standard_20.04-1_amd64.tar.gz
system ubuntu-22.04-standard_22.04-1_amd64.tar.zst
system ubuntu-24.04-standard_24.04-2_amd64.tar.zst
system ubuntu-24.10-standard_24.10-1_amd64.tar.zst
turnkeylinux debian-10-turnkey-collabtive_16.1-1_amd64.tar.gz
turnkeylinux debian-10-turnkey-concrete5_16.1-1_amd64.tar.gz
turnkeylinux debian-10-turnkey-drupal8_16.2-1_amd64.tar.gz
turnkeylinux debian-10-turnkey-ezplatform_16.0-1_amd64.tar.gz
turnkeylinux debian-10-turnkey-foodsoft_16.1-1_amd64.tar.gz
turnkeylinux debian-10-turnkey-magento_16.1-1_amd64.tar.gz
turnkeylinux debian-10-turnkey-moinmoin_16.1-1_amd64.tar.gz
turnkeylinux debian-10-turnkey-mongodb_16.1-1_amd64.tar.gz
turnkeylinux debian-10-turnkey-processmaker_16.1-1_amd64.tar.gz
turnkeylinux debian-10-turnkey-revision-control_16.1-1_amd64.tar.gz
turnkeylinux debian-10-turnkey-trac_16.1-1_amd64.tar.gz
turnkeylinux debian-11-turnkey-b2evolution_17.1-1_amd64.tar.gz
turnkeylinux debian-11-turnkey-drupal9_17.1-1_amd64.tar.gz
turnkeylinux debian-11-turnkey-ghost_17.1-1_amd64.tar.gz
```

3. Buat container lxc menggunakan perintah dibawah ini
4. `pct create 101 local:vztmpl/debian-11-standard_11.7.1_amd64.tar.zst --hostname debian-ct --cores 2 --memory 1024 --rootfs local-lvm:10 --net0 name=eth0,bridge=vmbr1,ip=dhcp`

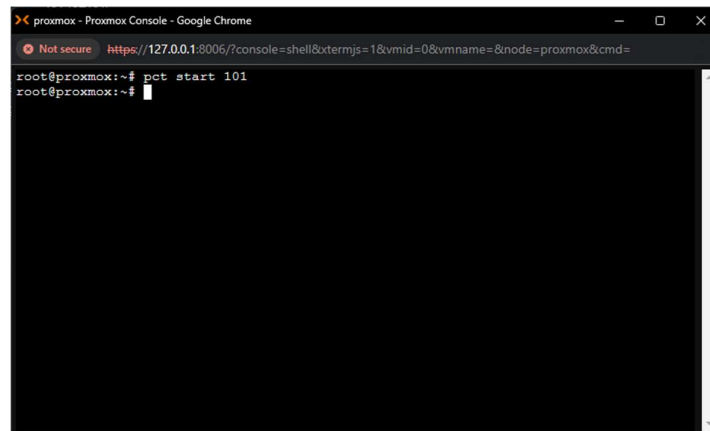


```
proxmax - Proxmox Console - Google Chrome
https://127.0.0.1:8006/?console=shell&xtermjs=1&vmid=0&vmname=&node=proxmax&cmd=

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permitted by applicable law.
Last login: Mon Dec 23 16:09:25 WIB 2024 on pts/0
root@proxmax:~# pct create 102 local:vztmpl/debian-11-standard_11.7.1_amd64.tar.zst -
--hostname debian-ct --cores 2 --memory 1024 --rootfs local-lvm:10 --net0 name=eth0,br
idge=vmbri1,ip=dhcp
WARNING: You have not turned on protection against thin pools running out of space.
WARNING: Set activation/thin_pool_autoextend_threshold below 100 to trigger automat
ic extension of thin pools before they get full.
Logical volume "vm-102-disk-0" created.
```

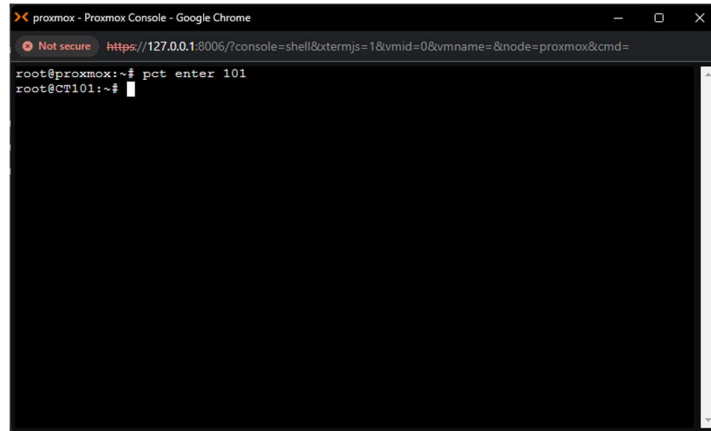
- a. `pct create 101` - Membuat sebuah container dengan ID 102
 - b. `local:vztmpl/debian-11-standard_11.7.1_amd64.tar.zst` - Lokasi template yang digunakan untuk membuat container
 - c. `--hostname debian-ct` - Menetapkan hostname container menjadi "debian-ct"
 - d. `--cores 2` - Menentukan jumlah CPU core yang digunakan oleh container, yaitu 2 core
 - e. `--memory 1024` - Mengalokasikan RAM sebesar 1024 MB (1 GB) untuk container
 - f. `--rootfs local-lvm:10` - Menentukan disk root container pada storage backend 'local-lvm' dengan kapasitas disk sebesar 10 GB
 - g. `--net0 name=eth0,bridge=vmbri1,ip=dhcp` - Menambahkan konfigurasi jaringan pada container, dengan interface jaringan 'eth0', bridge 'vmbri1' pada host, dan pengaturan IP yang diberikan secara otomatis oleh DHCP
5. Menjalankan container dengan perintah `pct start 101`



```
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https://127.0.0.1:8006/?console=shell&xtermjs=1&vmid=0&vmname=&node=proxmax&cmd=

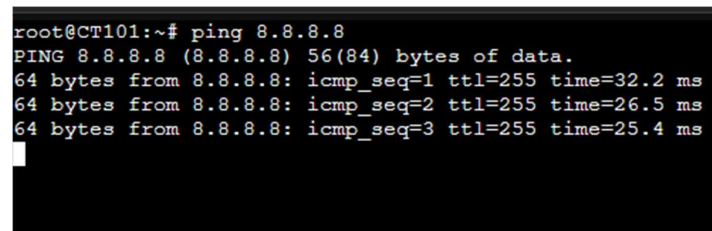
root@proxmax:~# pct start 101
root@proxmax:~#
```

6. Tes masuk ke container dengan perintah `pct enter 101`



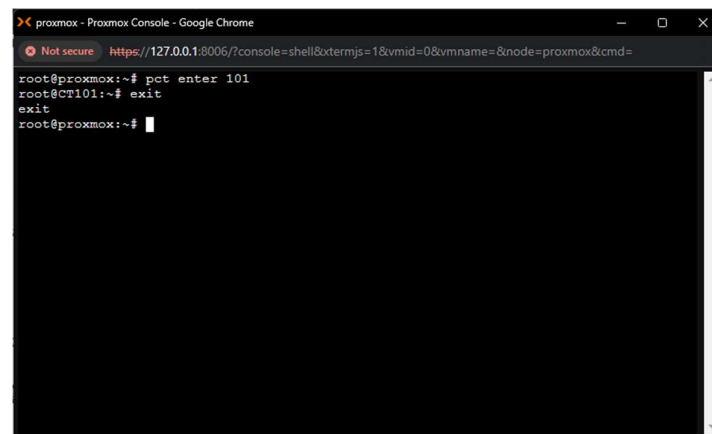
```
proxmox - Proxmox Console - Google Chrome
Not secure https://127.0.0.1:8006/?console=shell&xtermjs=1&vmid=0&vmname=&node=proxmox&cmd=
root@proxmox:~# pct enter 101
root@CT101:~#
```

7. Cek koneksi dengan ping google



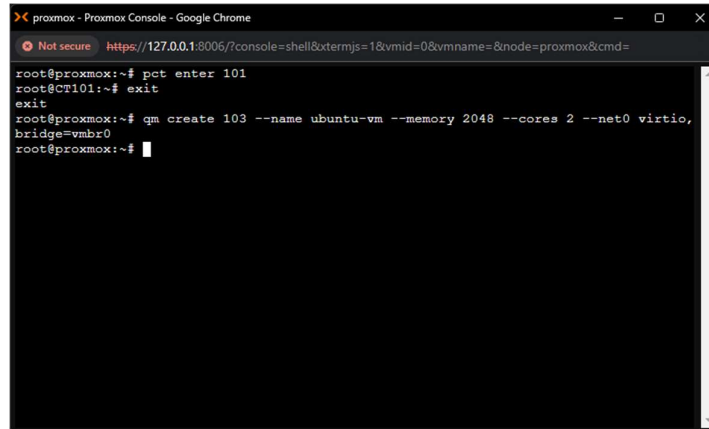
```
root@CT101:~# ping 8.8.8.8
PING 8.8.8.8 (8.8.8.8) 56(84) bytes of data.
64 bytes from 8.8.8.8: icmp_seq=1 ttl=255 time=32.2 ms
64 bytes from 8.8.8.8: icmp_seq=2 ttl=255 time=26.5 ms
64 bytes from 8.8.8.8: icmp_seq=3 ttl=255 time=25.4 ms
```

8. Keluar dengan perintah 'exit'



```
proxmox - Proxmox Console - Google Chrome
Not secure https://127.0.0.1:8006/?console=shell&xtermjs=1&vmid=0&vmname=&node=proxmox&cmd=
root@proxmox:~# pct enter 101
root@CT101:~# exit
exit
root@proxmox:~#
```

9. Command line untuk membuat Virtual Machine dalam proxmox adalah sebagai berikut
`'qm create 103 --name ubuntu-vm --memory 2048 --cores 2 net0 virtio,bridge=vmbri1'`

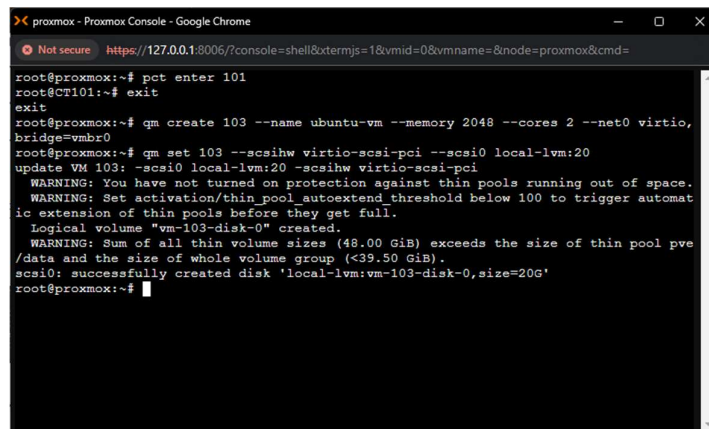


```
proxmox - Proxmox Console - Google Chrome
Not secure https://127.0.0.1:8006/?console=shell&termjs=1&vmid=0&vmname=&node=proxmox&cmd=
root@proxmox:~# pct enter 101
root@CT101:~# exit
exit
root@proxmox:~# qm create 103 --name ubuntu-vm --memory 2048 --cores 2 --net0 virtio,
bridge=vbr0
root@proxmox:~#
```

- a. qm create 103 = membuat vm dengan id 103
- b. --name = membuat nama vm dengan 'ubuntu-vm'
- c. --memory 2048 = mengalokasikan ram dengan 2048 mb
- d. --cores 2 = menentukan bahwa vm menggunakan 2 cpu core
- e. --net0 virtio,bridge=vbr1 = yaitu menambahkan kartu jaringan virtual dengan model
- f. virtl0 dengan melewati jaringan bridge vbr1

10. Konfigurasi dan mengubah pengaturan sebuah vm yang id 103 dengan perintah

`'qm set 103 --scsihw virtio-scsi-pci --scsi0 local-lvm:20'`



```
proxmox - Proxmox Console - Google Chrome
Not secure https://127.0.0.1:8006/?console=shell&termjs=1&vmid=0&vmname=&node=proxmox&cmd=
root@proxmox:~# pct enter 101
root@CT101:~# exit
exit
root@proxmox:~# qm create 103 --name ubuntu-vm --memory 2048 --cores 2 --net0 virtio,
bridge=vbr0
root@proxmox:~# qm set 103 --scsihw virtio-scsi-pci --scsi0 local-lvm:20
update VM 103: -scsi0 local-lvm:20 -scsihw virtio-scsi-pci
WARNING: You have not turned on protection against thin pools running out of space.
WARNING: Set activation/thin_pool_autoextend_threshold below 100 to trigger automat
ic extension of thin pools before they get full.
Logical volume "vm-103-disk-0" created.
WARNING: Sum of all thin volume sizes (48.00 GiB) exceeds the size of thin pool pve
/data and the size of whole volume group (<39.50 GiB).
scsi0: successfully created disk 'local-lvm:vm-103-disk-0,size=20G'
root@proxmox:~#
```

11. Untuk memasukkan Media Installation Disk dari ubuntu gunakan perintah dibawah ini

`'qm set 103 --ide2 local:iso/ubuntu-22.04.5-live-server-amd64.iso,media=cdrom'`

```
proxmox - Proxmox Console - Google Chrome
Not secure https://127.0.0.1:8006/?console=shell&xtermjs=1&vmid=0&vmname=&node=proxmox&cmd=
root@proxmox:~# qm set 103 --ide2 local:iso/ubuntu-22.04.5-live-server-amd64.iso,media=cdrom
update VM 103: -ide2 local:iso/ubuntu-22.04.5-live-server-amd64.iso,media=cdrom
root@proxmox:~#
```

12. Menjalankan vm dengan id 103 'qm start 103'

13. Melihat list yang ada di qm 103 'qm list'

```
proxmox - Proxmox Console - Google Chrome
Not secure https://127.0.0.1:8006/?console=shell&xtermjs=1&vmid=0&vmname=&node=proxmox&cmd=
root@proxmox:~# qm set 103 --ide2 local:iso/ubuntu-22.04.5-live-server-amd64.iso,media=cdrom
update VM 103: -ide2 local:iso/ubuntu-22.04.5-live-server-amd64.iso,media=cdrom
root@proxmox:~# qm list
      VMID NAME      STATUS    MEM (MB)  BOOTDISK (GB)  PID
    ----  -
      100 UbuntuVM    stopped   4096      20.00 0
      103 ubuntu-vm    stopped   2048      0.00 0
root@proxmox:~#
```