

# Quick Reference Guide

## Proxmox VE - First Ubuntu VM

Self-hosted virtualization in 15 minutes

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## 1. What is Proxmox VE?

- Open-source hypervisor based on KVM + LXC
- HTML5 web interface - no client to install
- Instant snapshots and clones
- Free for personal and professional use
- Multi-node clustering (high availability)

## 2. Hardware Prerequisites

- Intel VT-x or AMD AMD-V CPU (enable in BIOS)
- Minimum 4 GB RAM (8 GB recommended)
- Dedicated disk 32 GB minimum (SSD recommended)
- 8 GB USB drive for installer
- Ethernet network connection recommended

```
# Verify virtualization:
eglectc -c '(vmx|svm)' /proc/cpuinfo
# Result > 0 = OK
```

## 3. Install Proxmox

1. Download ISO: [proxmox.com/downloads](https://proxmox.com/downloads)
2. Create bootable USB (Balena Etcher or Rufus)
3. Boot from USB drive

```
# Network config during installation:
# Hostname: pve.mydomain.local
# IP: 192.168.1.100/24
# Gateway: 192.168.1.1
# DNS: 8.8.8.8
# After reboot: https://SERVER-IP:8006
```

## 4. Post-Installation

```
# Disable enterprise repo (no subscription)
sed -i 's/^deb/#deb/' /etc/apt/sources.list.d/pve-enterprise.list

# Add community repo
echo "deb http://download.proxmox.com/debian/pve bookworm pve-no-subscription" \
  > /etc/apt/sources.list.d/pve-community.list

apt update && apt dist-upgrade -y
```

```
# Via Proxmox interface:
# local (pve) > ISO Images > Download from URL

# Ubuntu 24.04 LTS ISO URL:
https://releases.ubuntu.com/24.04/ubuntu-24.04.2-live-server-amd64.iso

# Via Proxmox Shell:
cd /var/lib/vz/template/iso/
wget -q https://releases.ubuntu.com/24.04/ubuntu-24.04.2-live-server-amd64.iso
```

## 6. Create Ubuntu VM

Create VM (top right) > Follow wizard:

```
# Recommended settings:
# General : Name=ubuntu-server-01, VM ID=101
# OS      : ISO ubuntu-24.04.2, Type=Linux 6.x
# System  : BIOS=SeaBIOS, Machine=q35, SCSI=VirtIO
# Disks   : Bus=VirtIO, Size=32G, SSD emulation=ON
# CPU     : 2 cores, Type=host
# Memory  : 2048 MB minimum
# Network : Bridge=vibr0, Model=VirtIO

# Start VM and open noVNC console
ip a | grep "inet " | grep -v 127.0.0.1
```

## 7. Templates and Clones

```
# Convert VM to template (interface):
# Right-click VM -> Convert to Template

# Clone via CLI:
qm template 101
qm clone 101 200 --name my-server --full
qm start 200
```

## 8. SSH Access

```
ssh ubuntu@VM-IP-ADDRESS

# SSH key (recommended):
ssh-keygen -t ed25519 -C "proxmox-vm"
ssh-copy-id ubuntu@192.168.1.105
```

## 9. Snapshots

```
# Create snapshot:
qm snapshot 101 before-upgrade --description "Before kernel 6.8"

# Restore:
qm stop 101 && qm rollback 101 before-upgrade && qm start 101

# List / Delete:
qm listsnapshot 101
qm delsnapshot 101 before-upgrade
```

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**Full article:** [botum.ca/proxmox-create-ubuntu-vm/](https://botum.ca/proxmox-create-ubuntu-vm/)

Website: [www.botum.ca](https://www.botum.ca) -

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