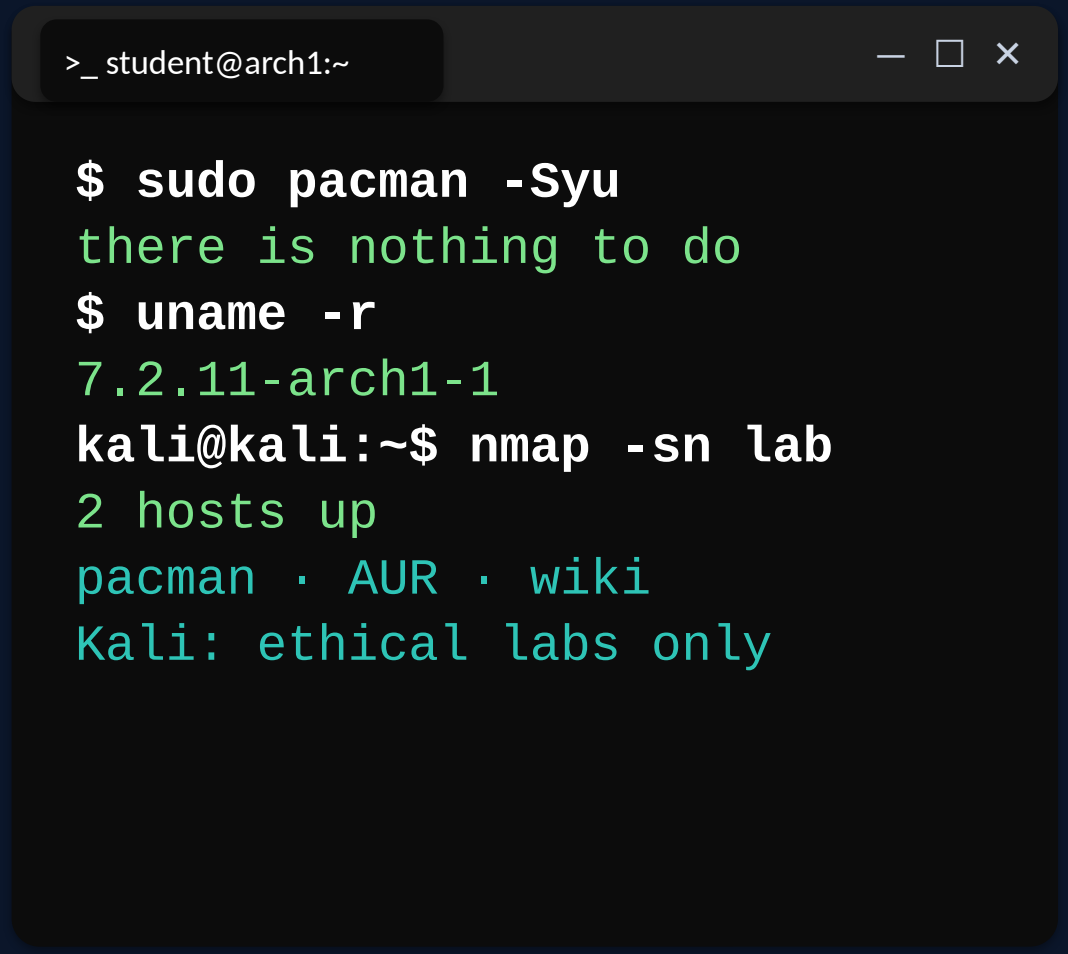


LESSON 9 OF 12

Arch & Kali Linux

Rolling · pacman · AUR · Security Lab

Kali Essentials: kali-rolling, Metapackages & kali-tweaks

Full Course · Arch 2026.11 · Kali 2026.3 (Nov 2026)

What You Will Learn in Lesson 9

- Kali repositories and branches: kali-rolling, last-snapshot, experimental
- Updating Kali safely
- Metapackages: core, headless, default, large, everything
- Tool groups: kali-tools-web, -forensics, -wireless …
- kali-tweaks: shell, metapackages, repos, virtualization, hardening
- Kali's network-service policy and the non-root user
- Finding documentation for every tool

Kali Repositories and Branches

```
kali@kali:~$ cat /etc/apt/sources.list
deb http://http.kali.org/kali kali-rolling main contrib non-free non-free-firmware
# kali-rolling        : default, continuously updated from Debian testing
# kali-last-snapshot  : the last quarterly release (2026.3) — more stable
# kali-experimental   : packages under test (not for daily use)
# kali-bleeding-edge  : built from upstream git (for testers)
kali@kali:~$ apt policy | grep -E 'kali-(rolling|last)' | head -3
# NEVER add Debian/Ubuntu repos to Kali — it breaks the system ("FrankenDebian")
```

Updating Kali Safely

```
kali@kali:~$ sudo apt update
kali@kali:~$ apt list --upgradable | wc -l
kali@kali:~$ sudo apt full-upgrade -y           # Kali needs full-upgrade, not upgrade
kali@kali:~$ sudo apt autoremove --purge
kali@kali:~$ [ -f /var/run/reboot-required ] && echo 'reboot needed'
kali@kali:~$ grep VERSION= /etc/os-release
# VM? Take a snapshot before big upgrades; old VM (months)? update keyring first:
kali@kali:~$ sudo wget https://archive.kali.org/archive-keyring.gpg \
      -O /usr/share/keyrings/kali-archive-keyring.gpg
```

Metapackages: How Much Kali Do You Want?

Metapackage	What you get	Size
kali-linux-core	Base Kali system, no tools	Small
kali-linux-headless	Default tools without a GUI (servers, WSL, containers)	Medium
kali-linux-default	The standard set on installer/VM images	~ 10 GB+
kali-linux-large	Default + many more tools	Large
kali-linux-everything	Every packaged tool	Very large
kali-tools-top10	The ten most popular tools	Small

Tool Groups (kali-tools-*)

```
kali@kali:~$ apt-cache search --names-only '^kali-tools-' | sort
kali-tools-crypto-stego         kali-tools-information-gathering
kali-tools-database             kali-tools-passwords
kali-tools-forensics            kali-tools-reverse-engineering
kali-tools-fuzzing              kali-tools-sniffing-spoofing
kali-tools-hardware             kali-tools-social-engineering
kali-tools-identify             kali-tools-vulnerability
kali-tools-protect / respond / detect / recover   (Kali Purple, defensive)
kali-tools-web                  kali-tools-wireless
kali@kali:~$ apt show kali-tools-forensics | grep Depends | tr ',' '\n' | head
kali@kali:~$ sudo apt install -y kali-tools-forensics
```

kali-tweaks

Menu	What it does
Metapackages	Install/remove tool sets with checkboxes
Network Repositories	Switch mirror / enable kali-experimental or bleeding-edge (carefully)
Shell & Prompt	Zsh (default) or Bash; one-line or two-line prompt
Virtualization	Install guest tools (VirtualBox, VMware, QEMU/Spice)
Hardening	Strong SSH defaults, wide compatibility mode for old protocols (lab use)
Kernel / misc	Kernel settings, e.g. privileged ports for non-root users

Services, the Non-root User and Undercover

```
# Kali policy: network services are DISABLED by default and don't start at boot
kali@kali:~$ systemctl is-enabled ssh postgresql apache2 2>/dev/null
disabled
kali@kali:~$ sudo systemctl start postgresql        # start only when needed
kali@kali:~$ sudo systemctl enable --now ssh        # only if you really need it
# Non-root by default since 2020.1 — use sudo for admin tasks
kali@kali:~$ id ; sudo -l | tail -2
kali@kali:~$ sudo apt install -y kali-root-login     # not recommended
# Undercover mode: Windows-like look in public places
kali@kali:~$ kali-undercover
```

Documentation for Every Tool

Source	How
man pages	man nmap ; man -k password
Built-in help	tool --help or tool -h
kali.org/tools	Every packaged tool: description, packages, commands, examples
kali.org/docs	Installation, troubleshooting, policies, NetHunter, Purple
/usr/share/doc/<pkg>	README, examples and changelogs on your system
Upstream projects	Official docs (e.g. nmap.org/book, OWASP guides)

Summary and Homework

- kali-rolling (default) or kali-last-snapshot; never add Debian/Ubuntu repos
- Update with apt full-upgrade; snapshot first; refresh keyring on old VMs
- Metapackages: core < headless < default < large < everything; top10
- kali-tools-* groups by task; Purple groups for defense
- kali-tweaks: metapackages, repos, shell, virtualization, hardening
- Homework: run kali-tweaks; install kali-tools-forensics; read kali.org/tools for 3 tools

Thank You! 🙏

Free videos & PDFs: www.MyWebUniversity.com

Slides for this lesson: MyWebUniversity.com/presentations

YouTube: @MyWebUniversity · @MyWebUniversity-Dari

Wahidullah Lutfy — Founder and Director of IT of MyWebUniversity, and CS teacher

Book: The Direct Path to Linux Ubuntu (Amazon · Barnes & Noble)

Learn it, then pass it on.