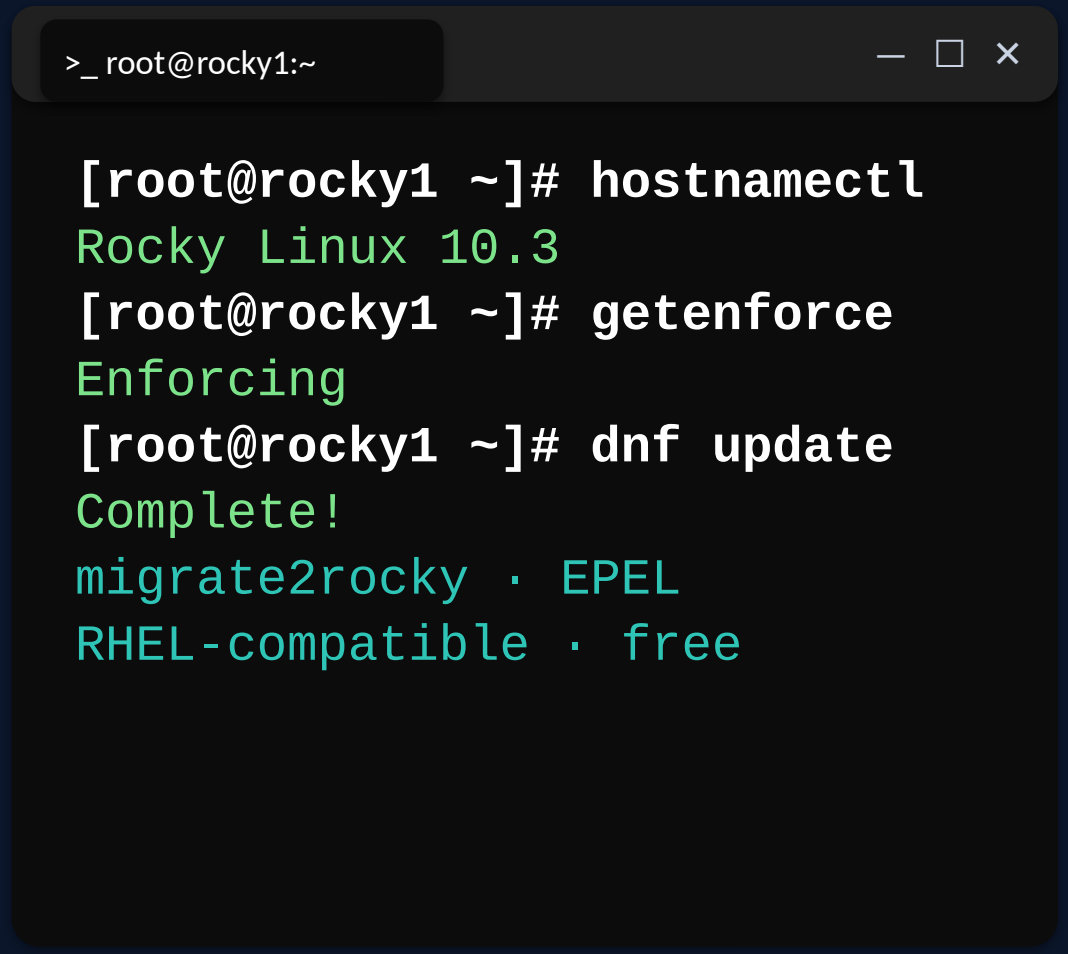


LESSON 6 OF 12

Rocky Linux 9 & 10

Install · Migrate · Differences

Admin Skills Tour: Your RHEL Skills on Rocky

Full Course · Rocky Linux 10.3 & 9.9 (Nov 2026)

What You Will Do in Lesson 6

- Users, groups and sudo (RHEL Lesson 4)
- Software and services (RHEL Lessons 5–6)
- Storage with LVM (RHEL Lesson 7)
- Networking, firewalld and SSH keys (RHEL Lesson 8)
- SELinux for a custom web root (RHEL Lesson 9)
- A Podman container as a service (RHEL Lesson 10)
- A checklist you can reuse on every new Rocky server

Users, Groups and sudo

```
[student@rocky1 ~]$ sudo groupadd webteam
[student@rocky1 ~]$ sudo useradd -G webteam -c 'Farid Noori' farid ; sudo passwd farid
[student@rocky1 ~]$ sudo chage -d 0 farid                # change password at first login
[student@rocky1 ~]$ echo '%webteam ALL=(root) /usr/bin/systemctl restart httpd' | \
      sudo tee /etc/sudoers.d/webteam ; sudo visudo -c
[student@rocky1 ~]$ sudo mkdir -p /srv/web ; sudo chgrp webteam /srv/web
[student@rocky1 ~]$ sudo chmod 2775 /srv/web             # setgid team folder
[student@rocky1 ~]$ id farid ; ls -ld /srv/web
```

Software and Services

```
[student@rocky1 ~]$ sudo dnf install -y httpd mod_ssl vim-enhanced bash-completion
[student@rocky1 ~]$ sudo systemctl enable --now httpd
[student@rocky1 ~]$ systemctl status httpd --no-pager | head -3
[student@rocky1 ~]$ sudo systemctl edit httpd       # Restart=on-failure
[student@rocky1 ~]$ journalctl -u httpd --since today --no-pager | tail
[student@rocky1 ~]$ sudo mkdir -p /var/log/journal  # keep logs across reboots
[student@rocky1 ~]$ sudo tuned-adm profile virtual-guest
[student@rocky1 ~]$ dnf history | head -3
```

Storage with LVM

```
[student@rocky1 ~]$ lsblk
[student@rocky1 ~]$ sudo pvcreate /dev/vdb ; sudo vgcreate vgweb /dev/vdb
[student@rocky1 ~]$ sudo lvcreate -n lvsite -L 2G vgweb
[student@rocky1 ~]$ sudo mkfs.xfs /dev/vgweb/lvsite
[student@rocky1 ~]$ echo '/dev/vgweb/lvsite /srv/web xfs defaults 0 0' | sudo tee -a /etc/fstab
[student@rocky1 ~]$ sudo systemctl daemon-reload ; sudo mount -a ; df -h /srv/web
[student@rocky1 ~]$ sudo chgrp webteam /srv/web ; sudo chmod 2775 /srv/web   # new FS: set again
[student@rocky1 ~]$ sudo lvextend -r -L +1G /dev/vgweb/lvsite                # grow online later
```

Network, Firewall and SSH Keys

```
[student@rocky1 ~]$ sudo nmcli con mod enp1s0 ipv4.method manual ipv4.addresses 10.0.0.21/24 \
      ipv4.gateway 10.0.0.1 ipv4.dns 10.0.0.1 ; sudo nmcli con up enp1s0
[student@rocky1 ~]$ echo '10.0.0.22 rocky2.lab.local rocky2' | sudo tee -a /etc/hosts
[student@rocky1 ~]$ sudo firewall-cmd --permanent --add-service={http,https}
[student@rocky1 ~]$ sudo firewall-cmd --reload ; sudo firewall-cmd --list-services
[student@rocky1 ~]$ ssh-keygen -t ed25519 ; ssh-copy-id rocky2
[student@rocky1 ~]$ echo 'PermitRootLogin no' | sudo tee /etc/ssh/sshd_config.d/50-local.conf
[student@rocky1 ~]$ sudo sshd -t && sudo systemctl reload sshd
```

SELinux for a Custom Web Root

```
[student@rocky1 ~]$ sudo sed -i 's#/var/www/html#/srv/web#g' /etc/httpd/conf/httpd.conf
[student@rocky1 ~]$ echo 'Hello from Rocky Linux' | sudo tee /srv/web/index.html
[student@rocky1 ~]$ curl -s localhost | head -2          # 403 Forbidden — why?
[student@rocky1 ~]$ sudo ausearch -m AVC -ts recent | tail -2
... scontext=system_u:system_r:httpd_t:s0 tcontext=...:unlabeled_t / default_t ...
[student@rocky1 ~]$ sudo semanage fcontext -a -t httpd_sys_content_t '/srv/web(/.*)?'
[student@rocky1 ~]$ sudo restorecon -Rv /srv/web
[student@rocky1 ~]$ sudo systemctl restart httpd ; curl -s localhost
Hello from Rocky Linux
```

A Container as a Service

```
[student@rocky1 ~]$ sudo dnf install -y container-tools
[student@rocky1 ~]$ podman run --rm quay.io/rockylinux/rockylinux:10 cat /etc/rocky-release
Rocky Linux release 10.3 (Red Quartz)
[student@rocky1 ~]$ mkdir -p ~/.config/containers/systemd
[student@rocky1 ~]$ cat > ~/.config/containers/systemd/nginx.container <<'EOF'
[Container]
Image=docker.io/library/nginx:stable
PublishPort=8080:80
[Install]
WantedBy=default.target
EOF
[student@rocky1 ~]$ systemctl --user daemon-reload ; systemctl --user start nginx
[student@rocky1 ~]$ sudo loginctl enable-linger student ; curl -sI localhost:8080 | head -1
HTTP/1.1 200 OK
```

New Rocky Server Checklist

#	Task
1	Verify ISO, install, update, reboot; set hostname and time zone
2	Admin user in wheel; lock root; SSH keys; PermitRootLogin no
3	Enable CRB and EPEL if needed; dnf-automatic for security updates
4	Static IP or DHCP reservation; /etc/hosts or DNS
5	firewalld: only needed services; SELinux Enforcing
6	Persistent journal; monitoring; backups tested
7	Document it — better: write it as an Ansible playbook (Lesson 11)

Summary and Homework

- Every admin command from the RHEL course works unchanged on Rocky
- Users + sudo, dnf + systemd, LVM, nmcli + firewalld + SSH
- SELinux: semanage fcontext + restorecon for custom paths
- Podman + Quadlet for containers as services
- Use the checklist on every new server
- Homework: repeat this whole lesson on rocky2 (Rocky 9.9) — note any difference

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.