

## UBUNTU SERVER CHEAT SHEET

### System Information

```
-----
hostname          # Show hostname
uname -a          # Kernel version
uptime            # How long the system has been running
top / htop        # Real-time system monitoring
free -h           # RAM usage
df -h             # Disk space
du -sh /path/     # Directory size
lscpu             # CPU info
lsblk            # Block devices
```

### User Management

```
-----
adduser username  # Create a new user
usermod -aG group username # Add user to a group
deluser username  # Delete a user
groups username   # List user groups
passwd username   # Change user password
```

### File & Directory Management

```
-----
ls -l /path/      # List files in a directory
cp source target  # Copy files
mv source target  # Move or rename
rm file           # Remove file
rm -r directory   # Remove directory recursively
mkdir -p /path/to/dir # Create nested directories
touch filename    # Create new empty file
cat file          # Show file content
nano/vim file     # Edit file
```

### Permissions

```
-----
chmod 755 file     # Change permissions
chown user:group file # Change ownership
```

### Networking

```
-----
ip a              # Show IP addresses
ip r              # Show routes
ping example.com  # Check connectivity
netstat -tuln     # List listening ports
ss -tulwn         # Same with ss
curl ifconfig.me  # Get external IP
ufw status        # UFW firewall status
ufw allow 22      # Allow SSH
ufw enable        # Enable firewall
```

### Package Management (APT)

```
-----
```

```
apt update                # Update package list
apt upgrade               # Upgrade installed packages
apt install package       # Install a package
apt remove package        # Remove a package
apt autoremove            # Remove unused packages
dpkg -i package.deb       # Install .deb package
```

#### Services & Processes

```
-----
systemctl status service  # Service status
systemctl start/stop/restart service
systemctl enable/disable service
ps aux | grep service     # Find process
kill PID                  # Kill a process
```

#### SSH & Remote Access

```
-----
ssh user@hostname         # SSH login
scp file user@host:/path  # Secure copy
ssh-keygen                 # Generate SSH key
ssh-copy-id user@host     # Copy key to remote
```

#### Disk & Storage

```
-----
mount /dev/sdX /mnt/point # Mount disk
umount /mnt/point         # Unmount
fdisk -l                  # Partition info
parted /dev/sdX           # Partition management
mkfs.ext4 /dev/sdX1       # Format disk
```

#### Docker (if installed)

```
-----
docker ps                 # List containers
docker images             # List images
docker run -it ubuntu bash # Run container
docker exec -it container bash # Access running container
docker-compose up -d      # Start with Compose
```

#### Logs & Troubleshooting

```
-----
journalctl -xe            # Systemd logs
dmesg                     # Kernel ring buffer
tail -f /var/log/syslog   # Watch logs in real-time
```

#### PM2 - Process Manager for Node.js

```
-----
npm install -g pm2        # Install globally
```

#### Basic Usage

```
pm2 start app.js          # Start an app
pm2 start app.js --name myapp # Start with custom name
pm2 list                  # List all processes
pm2 show myapp            # Detailed process info
pm2 status                # Current status of all apps
```

## Process Management

|                   |                        |
|-------------------|------------------------|
| pm2 stop myapp    | # Stop app             |
| pm2 restart myapp | # Restart app          |
| pm2 delete myapp  | # Delete app           |
| pm2 reload myapp  | # Zero-downtime reload |

## Startup & Auto-Launch

|               |                                  |
|---------------|----------------------------------|
| pm2 startup   | # Generate system startup script |
| pm2 save      | # Save current processes list    |
| pm2 resurrect | # Restore saved processes        |

## Logs

|                |                           |
|----------------|---------------------------|
| pm2 logs       | # Show logs for all apps  |
| pm2 logs myapp | # Logs for a specific app |
| pm2 flush      | # Clear all logs          |

## Advanced

|                                |                              |
|--------------------------------|------------------------------|
| pm2 monit                      | # Real-time dashboard        |
| pm2 reload ecosystem.config.js | # Reload with ecosystem file |

## Ecosystem File Example

```
module.exports = {  
  apps : [{  
    name    : "myapp",  
    script  : "./app.js",  
    instances: "max",  
    exec_mode: "cluster"  
  }]  
};
```

## Run with:

```
pm2 start ecosystem.config.js
```