

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

```
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
```