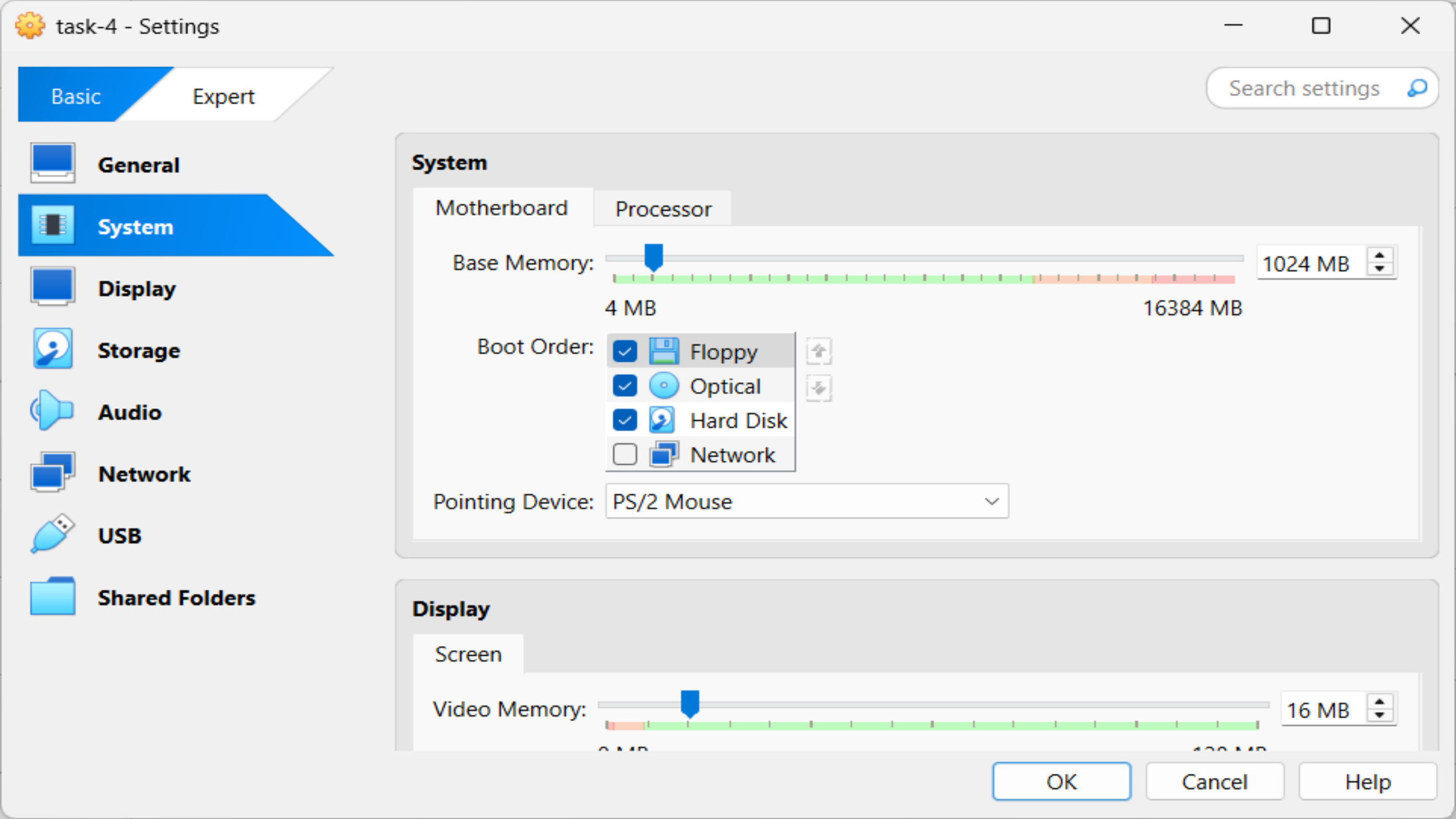
Task-4

- VM1 (lampstack) => 1GB RAM, 1CPU, 25GB, install rocky linux 8.x
- => /boot => 2GB
- swap => 2GB
- / => 15GB
-
- => set hostname: lampserver
- => configure static IP from your network address space.
- => test network connectivity between server and internet
- => enable required repository
- => test repositories
- => apache httpd
- php 7.4
- mysql/mariadb
- => verify software packages installed or not
- => add 3GB lvm volume and mount it on /var/www/html


task-4 - Settings
Basic
Expert
Search settings
General
System
Display
Storage
Audio
Network
USB
Shared Folders
System
Motherboard
Processor
Base Memory:
1024 MB
4 MB
16384 MB
Boot Order:
Floppy
Optical
Hard Disk
Network
Pointing Device:
PS/2 Mouse
Display
Screen
Video Memory:
16 MB
OK
Cancel
Help

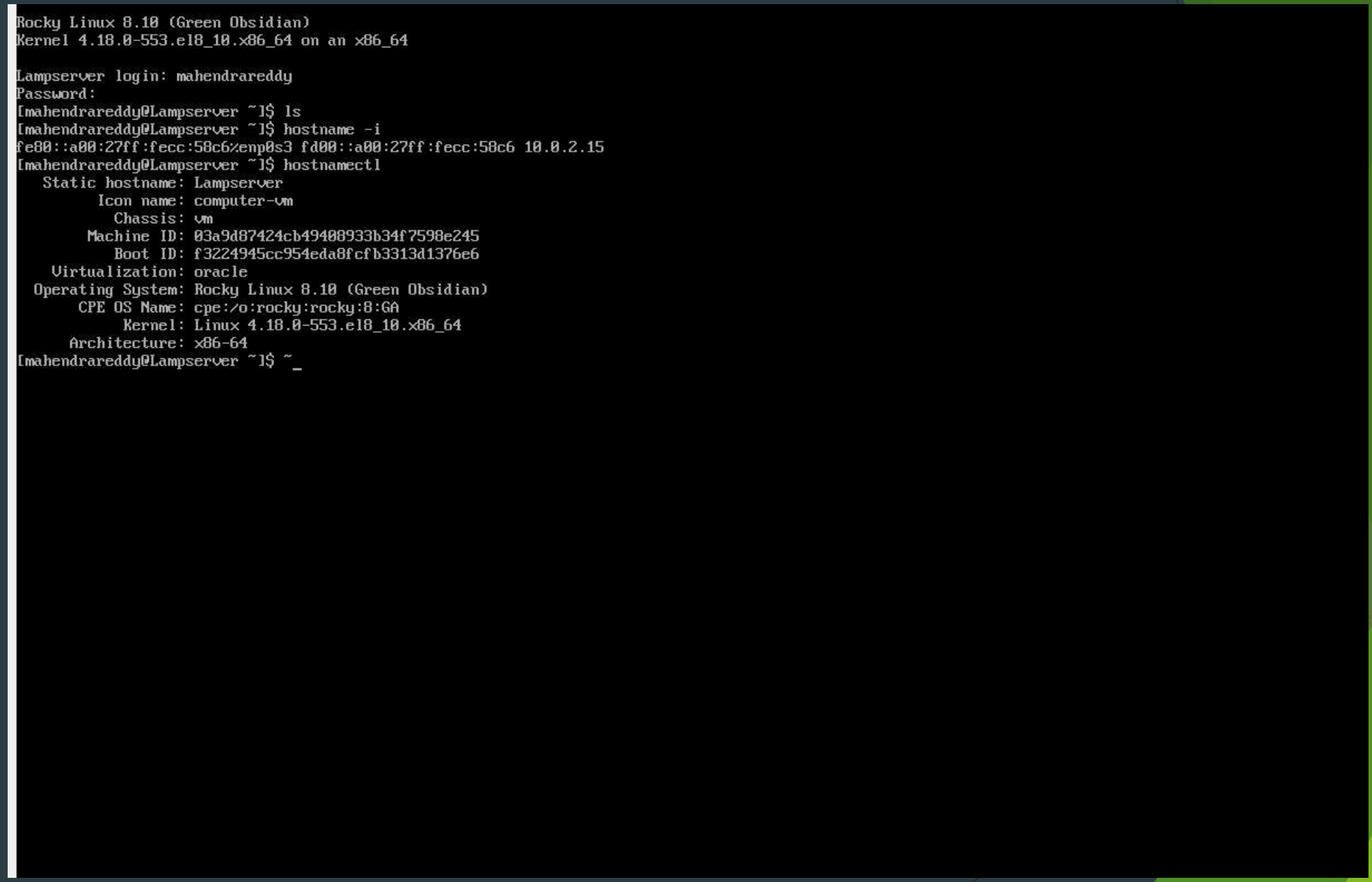
task-4 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

```
Rocky Linux 8.10 (Green Obsidian)
Kernel 4.18.0-553.44.1.el8_10.x86_64 on an x86_64

mahendra login: root
Password:
Last login: Thu Mar 20 03:40:45 on tty1
[root@mahendra ~]# ls
anaconda-ks.cfg
[root@mahendra ~]# lsblk
NAME                  MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sda                     8:0    0   64G  0 disk
├─sda1                  8:1    0    2G  0 part /boot
└─sda2                  8:2    0   37G  0 part
  ├─rl_lampserver-root 253:0    0   15G  0 lvm  /
  ├─rl_lampserver-swap 253:1    0    2G  0 lvm  [SWAP]
  └─rl_lampserver-home 253:2    0   20G  0 lvm  /home
sdb                     8:16   0   16G  0 disk
└─mahi-nani           253:3    0    3G  0 lvm
sr0                    11:0    1 1024M  0 rom
[root@mahendra ~]#
```

Right Ctrl


Rocky Linux 8.10 (Green Obsidian)
Kernel 4.18.0-553.el8_10.x86_64 on an x86_64
Lampserver login: mahendrareddy
Password:
[mahendrareddy@Lampserver ~]$ ls
[mahendrareddy@Lampserver ~]$ hostname -i
fe80::a00:27ff:fecc:58c6%enp0s3 fd00::a00:27ff:fecc:58c6 10.0.2.15
[mahendrareddy@Lampserver ~]$ hostnamectl
Static hostname: Lampserver
Icon name: computer-vm
Chassis: vm
Machine ID: 03a9d87424cb49408933b34f7598e245
Boot ID: f3224945cc954eda8fcfb3313d1376e6
Virtualization: oracle
Operating System: Rocky Linux 8.10 (Green Obsidian)
CPE OS Name: cpe:/o:rocky:rocky:8:GA
Kernel: Linux 4.18.0-553.el8_10.x86_64
Architecture: x86-64
[mahendrareddy@Lampserver ~]$ ~

task-4 [Running] - Oracle VirtualBox
File Machine View Input Devices Help

```
        inet6 fe80::a00:27ff:fecc:58c6/64
        route6 fe80::/64 metric 1024
        route6 fd00::/64 metric 100
        route6 default via fe80::2 metric 100

lo: unmanaged
        "lo"
        loopback (unknown), 00:00:00:00:00:00, sw, mtu 65536

DNS configuration:
        servers: 8.8.8.8 10.0.2.3
        interface: enp0s3

Use "nmcli device show" to get complete information about known devices and
"nmcli connection show" to get an overview on active connection profiles.

Consult nmcli(1) and nmcli-examples(7) manual pages for complete usage details.
[root@Lampserver ~]# nmcli con down enp0s3
Connection 'enp0s3' successfully deactivated (D-Bus active path: /org/freedesktop/NetworkManager/ActiveConnection/1)
[root@Lampserver ~]# nmcli con up enp0s3
Connection successfully activated (D-Bus active path: /org/freedesktop/NetworkManager/ActiveConnection/2)
[root@Lampserver ~]# nmcli
enp0s3: connected to enp0s3
        "Intel 82540EM"
        ethernet (e1000), 08:00:27:CC:58:C6, hw, mtu 1500
        ip4 default, ip6 default
        inet4 10.0.2.15/24
        inet4 192.168.1.0/24
        route4 192.168.1.0/24 metric 100
        route4 default via 192.168.1.1 metric 100
        route4 10.0.2.0/24 metric 100
        inet6 fd00::a00:27ff:fecc:58c6/64
        inet6 fe80::a00:27ff:fecc:58c6/64
        route6 fe80::/64 metric 1024
        route6 fd00::/64 metric 100
        route6 default via fe80::2 metric 100

lo: unmanaged
        "lo"
        loopback (unknown), 00:00:00:00:00:00, sw, mtu 65536

DNS configuration:
        servers: 8.8.8.8 10.0.2.3
        interface: enp0s3

Use "nmcli device show" to get complete information about known devices and
"nmcli connection show" to get an overview on active connection profiles.

Consult nmcli(1) and nmcli-examples(7) manual pages for complete usage details.
[root@Lampserver ~]#
```

Auto capture keyboard ...
Mouse integration ...
Right Ctrl

task-4 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

```
================================================================================================================================
 Package                                  Architecture                    Version                          Repository                        Size
================================================================================================================================
Installing:
 epel-release                             noarch                          8-18.el8                         extras                            24 k

Transaction Summary
================================================================================================================================
Install  1 Package

Total download size: 24 k
Installed size: 35 k
Downloading Packages:
epel-release-8-18.el8.noarch.rpm                                                                          169 kB/s |  24 kB     00:00
--------------------------------------------------------------------------------------------------------------------------------
Total                                                                                                     3.9 kB/s |  24 kB     00:06
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing        :                                                                                                          1/1
  Installing       : epel-release-8-18.el8.noarch                                                                             1/1
  Running scriptlet: epel-release-8-18.el8.noarch                                                                             1/1
Many EPEL packages require the CodeReady Builder (CRB) repository.
It is recommended that you run /usr/bin/crb enable to enable the CRB repository.

  Verifying        : epel-release-8-18.el8.noarch                                                                             1/1

Installed:
  epel-release-8-18.el8.noarch

Complete!
[root@Lampserver ~]# dnf config-manager --set-enabled powertools
[root@Lampserver ~]# dnf repolist
repo id                                                    repo name
appstream                                                  Rocky Linux 8 - AppStream
baseos                                                     Rocky Linux 8 - BaseOS
epel                                                       Extra Packages for Enterprise Linux 8 - x86_64
extras                                                     Rocky Linux 8 - Extras
powertools                                                 Rocky Linux 8 - PowerTools
[root@Lampserver ~]# dnf install -y httpd
Rocky Linux 8 - PowerTools                                                                                1.8 MB/s | 3.9 MB     00:02
Extra Packages for Enterprise Linux 8 - x86_64                                                            2.1 MB/s |  14 MB     00:06
Last metadata expiration check: 0:00:02 ago on Saturday 15 March 2025 10:59:25 PM EDT.
Package httpd-2.4.37-65.module+el8.10.0+1938+3b7755d4.3.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@Lampserver ~]#
```

Auto capture keyboard ...

Mouse integration ...

Right Ctrl

task-4 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

```
Transaction Summary
================================================================================
Install  1 Package

Total download size: 24 k
Installed size: 35 k
Downloading Packages:
epel-release-8-18.el8.noarch.rpm                            169 kB/s |  24 kB     00:00
--------------------------------------------------------------------------------
Total                                                       3.9 kB/s |  24 kB     00:06
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing        :                                                        1/1
  Installing       : epel-release-8-18.el8.noarch                           1/1
  Running scriptlet: epel-release-8-18.el8.noarch                           1/1
Many EPEL packages require the CodeReady Builder (CRB) repository.
It is recommended that you run /usr/bin/crb enable to enable the CRB repository.

  Verifying        : epel-release-8-18.el8.noarch                           1/1

Installed:
  epel-release-8-18.el8.noarch

Complete!
[root@Lampserver ~]# dnf config-manager --set-enabled powertools
[root@Lampserver ~]# dnf repolist
repo id                                    repo name
appstream                                  Rocky Linux 8 - AppStream
baseos                                     Rocky Linux 8 - BaseOS
epel                                       Extra Packages for Enterprise Linux 8 - x86_64
extras                                     Rocky Linux 8 - Extras
powertools                                 Rocky Linux 8 - PowerTools
[root@Lampserver ~]# dnf install -y httpd
Rocky Linux 8 - PowerTools                                  1.8 MB/s | 3.9 MB     00:02
Extra Packages for Enterprise Linux 8 - x86_64              2.1 MB/s |  14 MB     00:06
Last metadata expiration check: 0:00:02 ago on Saturday 15 March 2025 10:59:25 PM EDT.
Package httpd-2.4.37-65.module+el8.10.0+1938+3b7755d4.3.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@Lampserver ~]# ststemctl enable --now httpd
-bash: ststemctl: command not found
[root@Lampserver ~]# systemctl enable --now httpd
Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service → /usr/lib/systemd/system/httpd.service.
[root@Lampserver ~]# firewall-cmd --permanent --add-service=httpd
Error: INVALID_SERVICE: 'httpd' not among existing services
[root@Lampserver ~]#
```

Auto capture keyboard ...

Mouse integration ...

Right Ctrl

task-4 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

```
Last metadata expiration check: 7:19:04 ago on Saturday 15 March 2025 10:59:25 PM EDT.
Error: Problems in request:
missing groups or modules: php:remi-8.2
[root@Lampserver ~]# yum module reset php
Last metadata expiration check: 7:19:24 ago on Saturday 15 March 2025 10:59:25 PM EDT.
Dependencies resolved.
Nothing to do.
Complete!
[root@Lampserver ~]# yum module enable php:remi-8.2
Last metadata expiration check: 7:19:28 ago on Saturday 15 March 2025 10:59:25 PM EDT.
Error: Problems in request:
missing groups or modules: php:remi-8.2
[root@Lampserver ~]# yum install -y https://rpms.remirepo.net/enterprise/remi-release-8.rpm
Last metadata expiration check: 7:20:23 ago on Saturday 15 March 2025 10:59:25 PM EDT.
remi-release-8.rpm                                                                                  2.8 kB/s |  37 kB     00:13
Dependencies resolved.
================================================================================================================================
 Package                              Architecture                   Version                              Repository                          Size
================================================================================================================================
Installing:
 remi-release                         noarch                         8.10-2.el8.remi                      @commandline                        37 k

Transaction Summary
================================================================================================================================
Install  1 Package

Total size: 37 k
Installed size: 34 k
Downloading Packages:
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing        :                                                                                                          1/1
  Installing       : remi-release-8.10-2.el8.remi.noarch                                                                      1/1
  Verifying        : remi-release-8.10-2.el8.remi.noarch                                                                      1/1

Installed:
  remi-release-8.10-2.el8.remi.noarch

Complete!
[root@Lampserver ~]# yum module reset php
Remi's Modular repository for Enterprise Linux 8 - x86_64                                                  345 kB/s | 1.0 MB     00:03
Safe Remi's RPM repository for Enterprise Linux 8 - x86_64                                                 16 kB/s | 2.2 MB     02:15    A
Last metadata expiration check: 0:00:02 ago on Sunday 16 March 2025 06:22:32 AM EDT.
Dependencies resolved.
Nothing to do.
Complete!
[root@Lampserver ~]# i
```

Right Ctrl

task-4 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

```
No match for argument: phd-curl
Package php-mbstring-8.2.28-1.el8.remi.x86_64 is already installed.
Package php-xml-8.2.28-1.el8.remi.x86_64 is already installed.
Error: Unable to find a match: php-mqsqlnd phd-curl
[root@Lampserver ~]# yum install -y php-curl php-mysqlnd
Last metadata expiration check: 0:04:25 ago on Sunday 16 March 2025 06:22:32 AM EDT.
Package php-common-8.2.28-1.el8.remi.x86_64 is already installed.
Dependencies resolved.
================================================================================================================================
 Package                          Architecture                  Version                                  Repository                          Size
================================================================================================================================
Installing:
 php-mysqlnd                      x86_64                        8.2.28-1.el8.remi                        remi-modular                       266 k

Transaction Summary
================================================================================================================================
Install  1 Package

Total download size: 266 k
Installed size: 887 k
Downloading Packages:
php-mysqlnd-8.2.28-1.el8.remi.x86_64.rpm                                                                  152 kB/s | 266 kB     00:01
--------------------------------------------------------------------------------------------------------------------------------
Total                                                                                                     111 kB/s | 266 kB     00:02
Running transaction check
Transaction check succeeded.
Running transaction test
Transaction test succeeded.
Running transaction
  Preparing        :                                                                                                          1/1
  Installing       : php-mysqlnd-8.2.28-1.el8.remi.x86_64                                                                     1/1
  Running scriptlet: php-mysqlnd-8.2.28-1.el8.remi.x86_64                                                                     1/1
  Verifying        : php-mysqlnd-8.2.28-1.el8.remi.x86_64                                                                     1/1

Installed:
  php-mysqlnd-8.2.28-1.el8.remi.x86_64

Complete!
[root@Lampserver ~]# yum install -y php-curl
Last metadata expiration check: 0:04:36 ago on Sunday 16 March 2025 06:22:32 AM EDT.
Package php-common-8.2.28-1.el8.remi.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@Lampserver ~]# php -v
PHP 8.2.28 (cli) (built: Mar 11 2025 17:58:12) (NTS gcc x86_64)
Copyright (c) The PHP Group
Zend Engine v4.2.28, Copyright (c) Zend Technologies
    with Zend OPcache v8.2.28, Copyright (c), by Zend Technologies
[root@Lampserver ~]#
```

Right Ctrl

task-4 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

```
  Verifying        : perl-Term-ANSIColor-4.06-396.el8.noarch                                                    41/54
  Verifying        : perl-Term-Cap-1.17-395.el8.noarch                                                          42/54
  Verifying        : perl-Text-ParseWords-3.30-395.el8.noarch                                                   43/54
  Verifying        : perl-Text-Tabs+Wrap-2013.0523-395.el8.noarch                                               44/54
  Verifying        : perl-Time-Local-1:1.280-1.el8.noarch                                                       45/54
  Verifying        : perl-Unicode-Normalize-1.25-396.el8.x86_64                                                 46/54
  Verifying        : perl-constant-1.33-396.el8.noarch                                                          47/54
  Verifying        : perl-interpreter-4:5.26.3-422.el8.x86_64                                                   48/54
  Verifying        : perl-libs-4:5.26.3-422.el8.x86_64                                                          49/54
  Verifying        : perl-macros-4:5.26.3-422.el8.x86_64                                                        50/54
  Verifying        : perl-parent-1:0.237-1.el8.noarch                                                           51/54
  Verifying        : perl-podlators-4.11-1.el8.noarch                                                           52/54
  Verifying        : perl-threads-1:2.21-2.el8.x86_64                                                           53/54
  Verifying        : perl-threads-shared-1.58-2.el8.x86_64                                                      54/54

Installed:
  mariadb-3:10.3.39-1.module+el8.8.0+1452+2a7eab68.x86_64                  mariadb-backup-3:10.3.39-1.module+el8.8.0+1452+2a7eab68.x86_64
  mariadb-common-3:10.3.39-1.module+el8.8.0+1452+2a7eab68.x86_64           mariadb-connector-c-3.1.11-2.el8_3.x86_64
  mariadb-connector-c-config-3.1.11-2.el8_3.noarch                         mariadb-errmsg-3:10.3.39-1.module+el8.8.0+1452+2a7eab68.x86_64
  mariadb-gssapi-server-3:10.3.39-1.module+el8.8.0+1452+2a7eab68.x86_64    mariadb-server-3:10.3.39-1.module+el8.8.0+1452+2a7eab68.x86_64
  mariadb-server-utils-3:10.3.39-1.module+el8.8.0+1452+2a7eab68.x86_64     perl-Carp-1.42-396.el8.noarch
  perl-DBD-MySQL-4.046-3.module+el8.9.0+1501+450eec3b.x86_64               perl-DBI-1.641-4.module+el8.9.0+1495+f278a004.x86_64
  perl-Data-Dumper-2.167-399.el8.x86_64                                    perl-Digest-1.17-395.el8.noarch
  perl-Digest-MD5-2.55-396.el8.x86_64                                      perl-Encode-4:2.97-3.el8.x86_64
  perl-Errno-1.28-422.el8.x86_64                                           perl-Exporter-5.72-396.el8.noarch
  perl-File-Path-2.15-2.el8.noarch                                         perl-File-Temp-0.230.600-1.el8.noarch
  perl-Getopt-Long-1:2.50-4.el8.noarch                                     perl-HTTP-Tiny-0.074-3.el8.noarch
  perl-IO-1.38-422.el8.x86_64                                              perl-IO-Socket-IP-0.39-5.el8.noarch
  perl-IO-Socket-SSL-2.066-4.module+el8.9.0+1517+e71a7a62.noarch           perl-MIME-Base64-3.15-396.el8.x86_64
  perl-Math-BigInt-1:1.9998.11-7.el8.noarch                                perl-Math-Complex-1.59-422.el8.noarch
  perl-Mozilla-CA-20160104-7.module+el8.9.0+1521+0101edce.noarch           perl-Net-SSLeay-1.88-2.module+el8.9.0+1517+e71a7a62.x86_64
  perl-PathTools-3.74-1.el8.x86_64                                         perl-Pod-Escapes-1:1.07-395.el8.noarch
  perl-Pod-Perldoc-3.28-396.el8.noarch                                     perl-Pod-Simple-1:3.35-395.el8.noarch
  perl-Pod-Usage-4:1.69-395.el8.noarch                                     perl-Scalar-List-Utils-3:1.49-2.el8.x86_64
  perl-Socket-4:2.027-3.el8.x86_64                                         perl-Storable-1:3.11-3.el8.x86_64
  perl-Term-ANSIColor-4.06-396.el8.noarch                                  perl-Term-Cap-1.17-395.el8.noarch
  perl-Text-ParseWords-3.30-395.el8.noarch                                 perl-Text-Tabs+Wrap-2013.0523-395.el8.noarch
  perl-Time-Local-1:1.280-1.el8.noarch                                     perl-URI-1.73-3.el8.noarch
  perl-Unicode-Normalize-1.25-396.el8.x86_64                               perl-constant-1.33-396.el8.noarch
  perl-interpreter-4:5.26.3-422.el8.x86_64                                 perl-libnet-3.11-3.el8.noarch
  perl-libs-4:5.26.3-422.el8.x86_64                                        perl-macros-4:5.26.3-422.el8.x86_64
  perl-parent-1:0.237-1.el8.noarch                                         perl-podlators-4.11-1.el8.noarch
  perl-threads-1:2.21-2.el8.x86_64                                         perl-threads-shared-1.58-2.el8.x86_64

Complete!
[root@Lampserver ~]# systemctl enable --now mariadb
Created symlink /etc/systemd/system/mysql.service → /usr/lib/systemd/system/mariadb.service.
Created symlink /etc/systemd/system/mysqld.service → /usr/lib/systemd/system/mariadb.service.
Created symlink /etc/systemd/system/multi-user.target.wants/mariadb.service → /usr/lib/systemd/system/mariadb.service.
[root@Lampserver ~]#
```

Right Ctrl

task-4 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

```
Rocky Linux 8.10 (Green Obsidian)
Kernel 4.18.0-553.el8_10.x86_64 on an x86_64

Lampserver login: root
Password:
Last login: Sun Mar 16 06:07:02 on tty1
[root@Lampserver ~]# yum install -y mariadb-server
Last metadata expiration check: 0:23:15 ago on Sunday 16 March 2025 06:22:32 AM EDT.
Package mariadb-server-3:10.3.39-1.module+el8.8.0+1452+2a7eab68.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
[root@Lampserver ~]# systemctl enable --now mariadb
[root@Lampserver ~]#
```

Right Ctrl

task-4 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

```
[root@Lampserver ~]# systemctl status --now mariadb
● mariadb.service - MariaDB 10.3 database server
   Loaded: loaded (/usr/lib/systemd/system/mariadb.service; enabled; vendor preset: disabled)
   Active: active (running) since Sun 2025-03-16 06:43:58 EDT; 6min ago
     Docs: man:mysqld(8)
           https://mariadb.com/kb/en/library/systemd/
 Main PID: 1137 (mysqld)
   Status: "Taking your SQL requests now..."
    Tasks: 30 (limit: 12359)
   Memory: 99.3M
   CGroup: /system.slice/mariadb.service
           └─1137 /usr/libexec/mysqld --basedir=/usr

Mar 16 06:43:56 Lampserver systemd[1]: Starting MariaDB 10.3 database server...
Mar 16 06:43:57 Lampserver mysql-check-socket[818]: Socket file /var/lib/mysql/mysql.sock exists.
Mar 16 06:43:57 Lampserver mysql-check-socket[818]: No process is using /var/lib/mysql/mysql.sock, which means it is a garbage, so it will be removed automatic
Mar 16 06:43:57 Lampserver mysql-prepare-db-dir[870]: Database MariaDB is probably initialized in /var/lib/mysql already, nothing is done.
Mar 16 06:43:57 Lampserver mysql-prepare-db-dir[870]: If this is not the case, make sure the /var/lib/mysql is empty before running mysql-prepare-db-dir.
Mar 16 06:43:58 Lampserver systemd[1]: Started MariaDB 10.3 database server.
[root@Lampserver ~]# php -v
PHP 8.2.28 (cli) (built: Mar 11 2025 17:58:12) (NTS gcc x86_64)
Copyright (c) The PHP Group
Zend Engine v4.2.28, Copyright (c) Zend Technologies
    with Zend OPcache v8.2.28, Copyright (c), by Zend Technologies
[root@Lampserver ~]# httpd -v
Server version: Apache/2.4.37 (Rocky Linux)
Server built:   Feb 19 2025 20:07:52
[root@Lampserver ~]# mysql --version
mysql  Ver 15.1 Distrib 10.3.39-MariaDB, for Linux (x86_64) using readline 5.1
[root@Lampserver ~]#
```

Right Ctrl

task-4 [Running] - Oracle VirtualBox
File Machine View Input Devices Help

```
Rocky Linux 8.10 (Green Obsidian)
Kernel 4.18.0-553.el8_10.x86_64 on an x86_64

Lampserver login: root
Password:
Last login: Tue Mar 18 02:12:47 on tty1
[root@Lampserver ~]# lsblk
NAME                  MAJ:MIN RM  SIZE RO TYPE MOUNTPOINT
sda                     8:0    0   64G  0 disk
├─sda1                  8:1    0    2G  0 part /boot
└─sda2                  8:2    0   37G  0 part
  ├─rl_lampserver-root 253:0    0   15G  0 lvm  /
  ├─rl_lampserver-swap 253:1    0    2G  0 lvm  [SWAP]
  └─rl_lampserver-home 253:2    0   20G  0 lvm  /home
sdb                     8:16   0   16G  0 disk
sr0                    11:0    1 1024M  0 rom
[root@Lampserver ~]# pvcreate /dev/sdb
  Physical volume "/dev/sdb" successfully created.
[root@Lampserver ~]# vgcreate mahi /dev/sdb
  Volume group "mahi" successfully created
[root@Lampserver ~]# pvs
  PV         VG            Fmt  Attr PSize   PFree
  /dev/sda2  rl_lampserver lvm2 a--   36.99g      0
  /dev/sdb   mahi          lvm2 a--  <16.00g <16.00g
[root@Lampserver ~]# lvs
  LV   VG            Attr       LSize  Pool Origin Data%  Meta%  Move Log Cpy%Sync Convert
  home rl_lampserver -wi-ao---- 19.99g
  root rl_lampserver -wi-ao---- 15.00g
  swap rl_lampserver -wi-ao----  2.00g
[root@Lampserver ~]# vgs
  VG            #PV #LV #SN Attr   VSize   VFree
  mahi            1   0   0 wz--n- <16.00g <16.00g
  rl_lampserver   1   3   0 wz--n-  36.99g      0
[root@Lampserver ~]# ~
```

Right Ctrl

task-4 [Running] - Oracle VirtualBox
File Machine View Input Devices Help

```
Password:
Last login: Tue Mar 18 02:23:57 on tty1
[root@Lampserver ~]# lvs
  LV   VG            Attr       LSize  Pool Origin Data%  Meta%  Move Log Cpy%Sync Convert
  nani mahi          -wi-a-----  3.00g
  home rl_lampserver -wi-ao---- 19.99g
  root rl_lampserver -wi-ao---- 15.00g
  swap rl_lampserver -wi-ao----  2.00g
[root@Lampserver ~]#
Display all 1265 possibilities? (y or n)
[root@Lampserver ~]#
[root@Lampserver ~]# lvs
  LV   VG            Attr       LSize  Pool Origin Data%  Meta%  Move Log Cpy%Sync Convert
  nani mahi          -wi-a-----  3.00g
  home rl_lampserver -wi-ao---- 19.99g
  root rl_lampserver -wi-ao---- 15.00g
  swap rl_lampserver -wi-ao----  2.00g
[root@Lampserver ~]# mkfs.xfs /dev/mahi/nani
meta-data=/dev/mahi/nani         isize=512    agcount=4, agsize=196608 blks
         =                       sectsz=512   attr=2, projid32bit=1
         =                       crc=1        finobt=1, sparse=1, rmapbt=0
         =                       reflink=1    bigtime=0 inobtcount=0
data     =                       bsize=4096   blocks=786432, imaxpct=25
         =                       sunit=0      swidth=0 blks
naming   =version 2              bsize=4096   ascii-ci=0, ftype=1
log      =internal log           bsize=4096   blocks=2560, version=2
         =                       sectsz=512   sunit=0 blks, lazy-count=1
realtime =none                   extsz=4096   blocks=0, rtextents=0
[root@Lampserver ~]# mkdir /lvl1
[root@Lampserver ~]# mount + /dev/mahi/nani /lvl1
mount: bad usage
Try 'mount --help' for more information.
[root@Lampserver ~]# mount  /dev/mahi/nani /lvl1
[root@Lampserver ~]# cd /lvl1
[root@Lampserver lvl1]# ls
[root@Lampserver lvl1]# unmount  /dev/mahi/nani /lvl1
-bash: unmount: command not found
[root@Lampserver lvl1]# unmount /lvl1
-bash: unmount: command not found
[root@Lampserver lvl1]# umount /lvl1
umount: /lvl1: target is busy.
[root@Lampserver lvl1]# umount /lvl1
umount: /lvl1: target is busy.
[root@Lampserver lvl1]# cd ..
[root@Lampserver /]# umount /lvl1
[root@Lampserver /]# mkdir /var/www/html
mkdir: cannot create directory ‘/var/www/html’: File exists
[root@Lampserver /]# mkdir -p /var/www/html
[root@Lampserver /]# mount  /dev/mahi/nani /var/www/html
[root@Lampserver /]#
```

Right Ctrl

task-4 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

```
Setting the root password ensures that nobody can log into the MariaDB
root user without the proper authorisation.

Set root password? [Y/n] y
New password:
Re-enter new password:
Password updated successfully!
Reloading privilege tables..
 ... Success!


By default, a MariaDB installation has an anonymous user, allowing anyone
to log into MariaDB without having to have a user account created for
them.  This is intended only for testing, and to make the installation
go a bit smoother.  You should remove them before moving into a
production environment.

Remove anonymous users? [Y/n] y
 ... Success!

Normally, root should only be allowed to connect from 'localhost'.  This
ensures that someone cannot guess at the root password from the network.

Disallow root login remotely? [Y/n] y
 ... Success!

By default, MariaDB comes with a database named 'test' that anyone can
access.  This is also intended only for testing, and should be removed
before moving into a production environment.

Remove test database and access to it? [Y/n] y
 - Dropping test database...
 ... Success!
 - Removing privileges on test database...
 ... Success!

Reloading the privilege tables will ensure that all changes made so far
will take effect immediately.

Reload privilege tables now? [Y/n] y
 ... Success!

Cleaning up...

All done!  If you've completed all of the above steps, your MariaDB
installation should now be secure.

Thanks for using MariaDB!
[root@mahendra ~]# mysql -u root -p
Enter password: _
```

Auto capture keyboard ...

Mouse integration ...

Right Ctrl

```
installation should now be secure.

Thanks for using MariaDB!
[root@mahendra ~]# mysql -u root -p
Enter password:
Welcome to the MariaDB monitor.  Commands end with ; or \g.
Your MariaDB connection id is 16
Server version: 10.3.39-MariaDB MariaDB Server

Copyright (c) 2000, 2018, Oracle, MariaDB Corporation Ab and others.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

MariaDB [(none)]> CREATE DATABASE lampdb;
ERROR 1007 (HY000): Can't create database 'lampdb'; database exists
MariaDB [(none)]> CREATE USER 'wordpress'@'%' IDENTIFIED BY 'Wordpress321#';
ERROR 1396 (HY000): Operation CREATE USER failed for 'wordpress'@'%'
MariaDB [(none)]> SELECT user, host FROM mysql.user;
+-----------+-----------+
| user      | host      |
+-----------+-----------+
| wordpress | %         |
| root      | 127.0.0.1 |
| root      | ::1       |
| root      | localhost |
+-----------+-----------+
4 rows in set (0.001 sec)

MariaDB [(none)]> GRANT ALL PRIVILEGES ON lampdb.* to 'wordpress'@'%';
Query OK, 0 rows affected (0.000 sec)

MariaDB [(none)]> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.001 sec)

MariaDB [(none)]> SHOW DATABASES;
+--------------------+
| Database           |
+--------------------+
| information_schema |
| lampdb             |
| mysql              |
| performance_schema |
+--------------------+
4 rows in set (0.003 sec)
```

task-4 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

```
Rocky Linux 8.10 (Green Obsidian)
Kernel 4.18.0-553.el8_10.x86_64 on an x86_64

mahendra login: root
Password:
Last login: Thu Mar 20 03:37:55 on tty1
[root@mahendra ~]# mysql -u wordpress -p
Enter password:
ERROR 1045 (28000): Access denied for user 'wordpress'@'localhost' (using password: YES)
[root@mahendra ~]# mysql -u wordpress -p
Enter password:
ERROR 1045 (28000): Access denied for user 'wordpress'@'localhost' (using password: YES)
[root@mahendra ~]# mysql -u wordpress -p
Enter password:
ERROR 1045 (28000): Access denied for user 'wordpress'@'localhost' (using password: YES)
[root@mahendra ~]# mysql -u wordpress -p'Wordpress321#' -e "SHOW DATABASES;"
ERROR 1045 (28000): Access denied for user 'wordpress'@'localhost' (using password: YES)
[root@mahendra ~]# mysql -u wordpress -p'wordpress321#' -e "SHOW DATABASES;"
+--------------------+
| Database           |
+--------------------+
| information_schema |
| lampdb             |
+--------------------+
[root@mahendra ~]#
```

Right Ctrl

task-4 [Running] - Oracle VirtualBox

task-4 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

```
[root@mahendra ~]# systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor preset: disabled)
  Drop-In: /etc/systemd/system/httpd.service.d
           └─php-fpm.conf
   Active: active (running) since Sun 2025-03-23 02:46:22 EDT; 1h 33min ago
     Docs: man:httpd.service(8)
 Main PID: 2053 (httpd)
   Status: "Total requests: 3; Idle/Busy workers 100/0;Requests/sec: 0.000537; Bytes served/sec:   0 B/sec"
    Tasks: 278 (limit: 18824)
   Memory: 35.6M
   CGroup: /system.slice/httpd.service
           ├─2053 /usr/sbin/httpd -DFOREGROUND
           ├─2055 /usr/sbin/httpd -DFOREGROUND
           ├─2056 /usr/sbin/httpd -DFOREGROUND
           ├─2057 /usr/sbin/httpd -DFOREGROUND
           ├─2058 /usr/sbin/httpd -DFOREGROUND
           └─2270 /usr/sbin/httpd -DFOREGROUND

Mar 23 02:46:22 mahendra systemd[1]: httpd.service: Succeeded.
Mar 23 02:46:22 mahendra systemd[1]: Stopped The Apache HTTP Server.
Mar 23 02:46:22 mahendra systemd[1]: Starting The Apache HTTP Server...
Mar 23 02:46:22 mahendra httpd[2053]: AH00558: httpd: Could not reliably determine the server's fully qualified domain name, using fe80::a00:27ff:fecd:3ac. Set
Mar 23 02:46:22 mahendra systemd[1]: Started The Apache HTTP Server.
Mar 23 02:46:23 mahendra httpd[2053]: Server configured, listening on: port 80
[root@mahendra ~]# systemctl status mariadb
● mariadb.service - MariaDB 10.3 database server
   Loaded: loaded (/usr/lib/systemd/system/mariadb.service; enabled; vendor preset: disabled)
   Active: active (running) since Sun 2025-03-23 00:40:57 EDT; 3h 38min ago
     Docs: man:mysqld(8)
           https://mariadb.com/kb/en/library/systemd/
  Process: 1395 ExecStartPost=/usr/libexec/mysql-check-upgrade (code=exited, status=0/SUCCESS)
  Process: 907 ExecStartPre=/usr/libexec/mysql-prepare-db-dir mariadb.service (code=exited, status=0/SUCCESS)
  Process: 857 ExecStartPre=/usr/libexec/mysql-check-socket (code=exited, status=0/SUCCESS)
 Main PID: 1174 (mysqld)
   Status: "Taking your SQL requests now..."
    Tasks: 30 (limit: 18824)
   Memory: 103.2M
   CGroup: /system.slice/mariadb.service
           └─1174 /usr/libexec/mysqld --basedir=/usr

Mar 23 00:40:55 mahendra systemd[1]: Starting MariaDB 10.3 database server...
Mar 23 00:40:56 mahendra mysql-check-socket[857]: Socket file /var/lib/mysql/mysql.sock exists.
Mar 23 00:40:56 mahendra mysql-check-socket[857]: No process is using /var/lib/mysql/mysql.sock, which means it is a garbage, so it will be removed automatical
Mar 23 00:40:56 mahendra mysql-prepare-db-dir[907]: Database MariaDB is probably initialized in /var/lib/mysql already, nothing is done.
Mar 23 00:40:56 mahendra mysql-prepare-db-dir[907]: If this is not the case, make sure the /var/lib/mysql is empty before running mysql-prepare-db-dir.
Mar 23 00:40:57 mahendra systemd[1]: Started MariaDB 10.3 database server.
[root@mahendra ~]#
```

Right Ctrl

Right Ctrl

task-4 [Running] - Oracle VirtualBox

task-4 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

```
~
~
~
```

task-4 [Running] - Oracle VirtualBox

task-4 [Running] - Oracle VirtualBox

File Machine View Input Devices Help

```
wordpress/wp-settings.php
wordpress/wp-signup.php
wordpress/wp-trackback.php
wordpress/xmlrpc.php
[root@mahendra html]# mv wordpress /var/www/html
mv: 'wordpress' and '/var/www/html/wordpress' are the same file
[root@mahendra html]# cd wordpress
[root@mahendra wordpress]# ls -l wp-config-sample.php
-rw-r--r--. 1 root root 3336 Oct 15 11:24 wp-config-sample.php
[root@mahendra wordpress]# cp wp-config-sample.php wp-config.php
[root@mahendra wordpress]# ls -l wp-config.php
-rw-r--r--. 1 root root 3336 Mar 23 02:37 wp-config.php
[root@mahendra wordpress]# sed -i "s/database_name_here/lampdb/" wp-congig.php
sed: can't read wp-congig.php: No such file or directory
[root@mahendra wordpress]# sed -i "s/database_name_here/lampdb/" wp-congig.php
sed: can't read wp-congig.php: No such file or directory
[root@mahendra wordpress]# ls -l wp-config.php
-rw-r--r--. 1 root root 3336 Mar 23 02:37 wp-config.php
[root@mahendra wordpress]# cp wp-config-sample.php wp-config.php
cp: overwrite 'wp-config.php'? yes
[root@mahendra wordpress]# ls -l wp-config.php
-rw-r--r--. 1 root root 3336 Mar 23 02:40 wp-config.php
[root@mahendra wordpress]# sed -i "s/database_name_here/lampdb/" wp-congig.php
sed: can't read wp-congig.php: No such file or directory
[root@mahendra wordpress]# ls -l wp-config.php
-rw-r--r--. 1 root root 3336 Mar 23 02:40 wp-config.php
[root@mahendra wordpress]# cp wp-config-sample.php wp-config.php
cp: overwrite 'wp-config.php'? yes
[root@mahendra wordpress]# ls -l wp-config.php
-rw-r--r--. 1 root root 3336 Mar 23 02:41 wp-config.php
[root@mahendra wordpress]# ls
index.php    wp-activate.php     wp-comments-post.php  wp-content   wp-links-opml.php  wp-mail.php      wp-trackback.php
license.txt  wp-admin            wp-config.php         wp-cron.php  wp-load.php        wp-settings.php  xmlrpc.php
readme.html  wp-blog-header.php  wp-config-sample.php  wp-includes  wp-login.php       wp-signup.php
[root@mahendra wordpress]# sed -i "s/database_name_here/lampdb/" wp-config.php
[root@mahendra wordpress]# sed -i "s/username_here/wordpress/" wp-config.php
[root@mahendra wordpress]# sed -i "s/password_here/wordpress321#/" wp-config.php
[root@mahendra wordpress]# pwd
/var/www/html/wordpress
[root@mahendra wordpress]# cat wp-config.php | grep lampdb
define( 'DB_NAME', 'lampdb' );
[root@mahendra wordpress]# cat wp-config.php | grep wordpress
 * @link https://developer.wordpress.org/advanced-administration/wordpress/wp-config/
define( 'DB_USER', 'wordpress' );
define( 'DB_PASSWORD', 'wordpress321#' );
 * the {@link https://api.wordpress.org/secret-key/1.1/salt/ WordPress.org secret-key service}.
 * @link https://developer.wordpress.org/advanced-administration/wordpress/wp-config/#table-prefix
 * @link https://developer.wordpress.org/advanced-administration/debug/debug-wordpress/
[root@mahendra wordpress]# systemctl restart httpd
[root@mahendra wordpress]#
```

Right Ctrl

Right Ctrl

=>Setup database server

set password for default "root" : Lamp321#

database: lampdb

db user : wordpress

password: Wordpress321#

grant full access on lampdb to wordpress

=>test the database access login as wordpress

=>configure phpmyadmin and verify db sever access

=>install wordpress app

#Backup

automate => wordpress app backup & database "lampdb" backup

- daily backup (12AM)
- store backup copies on remote server i.e on VM2
  -> use /wordpress for wordpress app backups
  > use /lampdb for db backups
- keep 3 recent backups and delete the backups older than 3days

tar
zip
include date
tar -cvzf myapp-backp-on-date +"%Y-%b-%d-%H-%M".tar.gz /var/www/html