

Debian OS installation for Medulla server

Technical Specifications

Prerequisites - Server Sizing		
Main Server	OS	Debian 12.x
	Architecture	x86-64
	CPU	8 cores
	RAM	8 GB
	Partition /	20 GB in EXT4
	/var partition	400 GB minimum in XFS or mount point on a storage array
Multi-site relay servers (if applicable)	OS	Debian 12.x
	Architecture	x86-64
	CPU	4 cores
	RAM	8 GB
	Partition /	20 GB in EXT4
	/var partition	At least 400 GB in XFS or mount point on a storage array

Debian Server Installation

Summary:

o separate only /var from / and place them in LVM

o install the SSH server and standard system utilities

o do not install antivirus software or a firewall

o set up an account that

- o can switch to sudo without a password

- o can log in from the IP address **94.130.207.190**

o can log in with the following key:

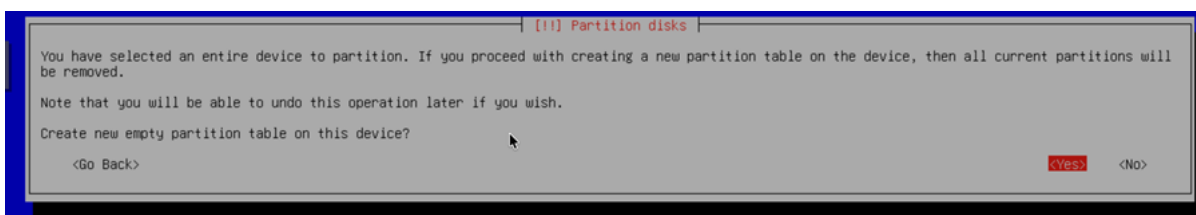
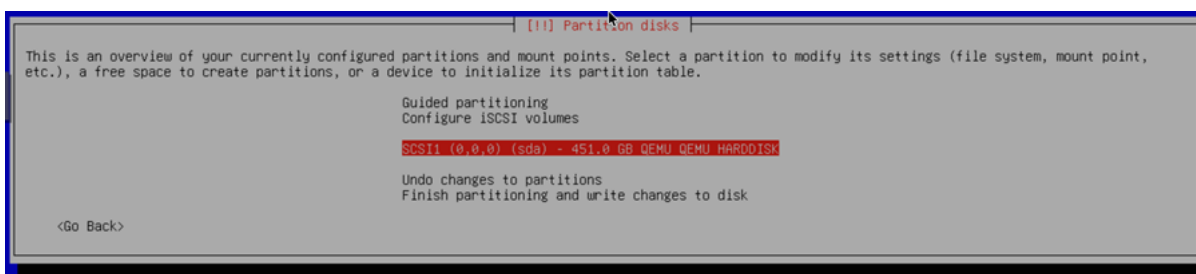
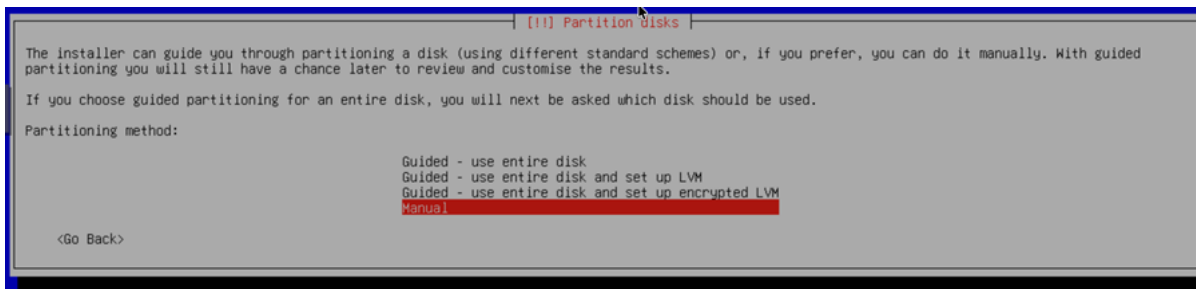
ssh-rsa

```
AAAAB3NzaC1yc2EAAAADAQABAAQGCScgwfwJKM5BtgzAYu6FEeJ5jW3onkzFp8D8piLR22kWbRcT/  
AJ1z0jhS5ZDtn6mumfidVPFbLkDf382u54pOU6JGwy9GhvEIXOSlzgXZMH5kcfBE/8Ovr9zLtbRKsWQN  
9YUSt5y6lmcSxuQNVhkRy49/593oamVJACSitSVJ68716hj0gp4N8gUMVkvNgEBDZVSPe0DXz2h7JEzO  
Kx2ejjRaw22ve+qARTw+60gMP0aCLGt/m0cyv+90AZigQwWIPcUk+bBRJn3Ku+Bkw+JuLYURIVc4xoT  
vT1JTWKXAzMln4nrlisl9Ex5eEHSkvs/fgjCgU28Fza5n5mBj/pbQRY+/AWLjvBVuLiVReO7hq60fhrX9+j  
7MWMCYCZQiHbk/r7OprLyl2yGFX1DbgRGF1Sk2R9DtqRhwPzPxtQ7ZtKSjhlLjrZxj/YJLHSoUsw+4CHprj  
zU0gXBt1RCQoyhYqEGcnuFyf9dIBXCINkmp4jzf7CQjrC8uPqAtS1zQU= support@support
```

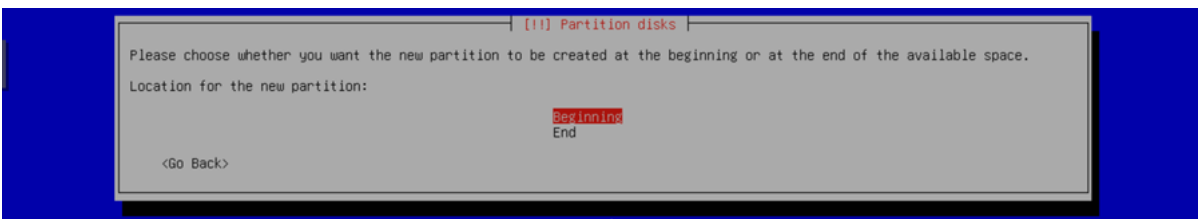
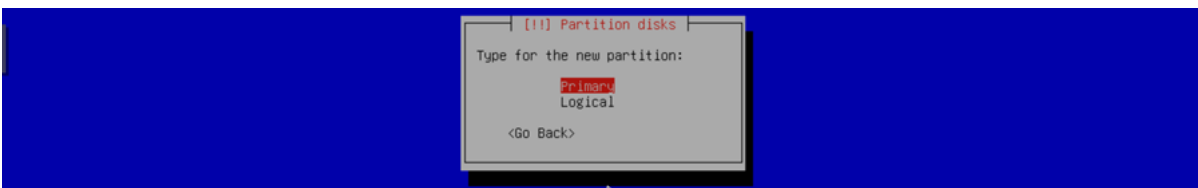
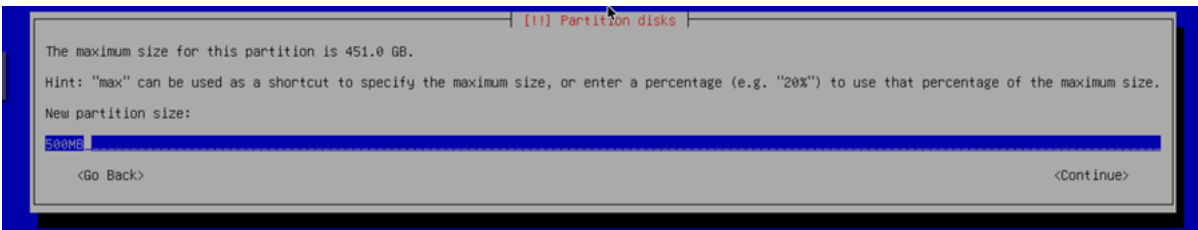
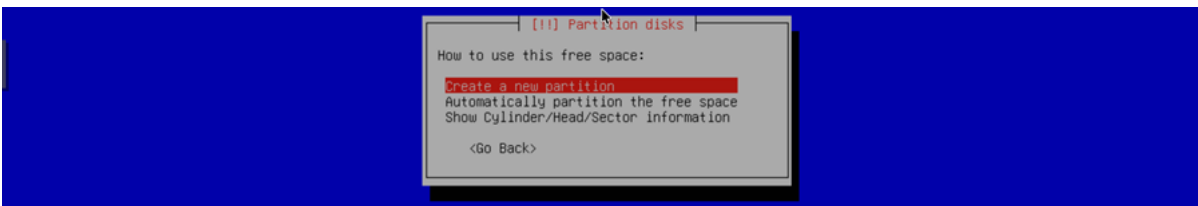
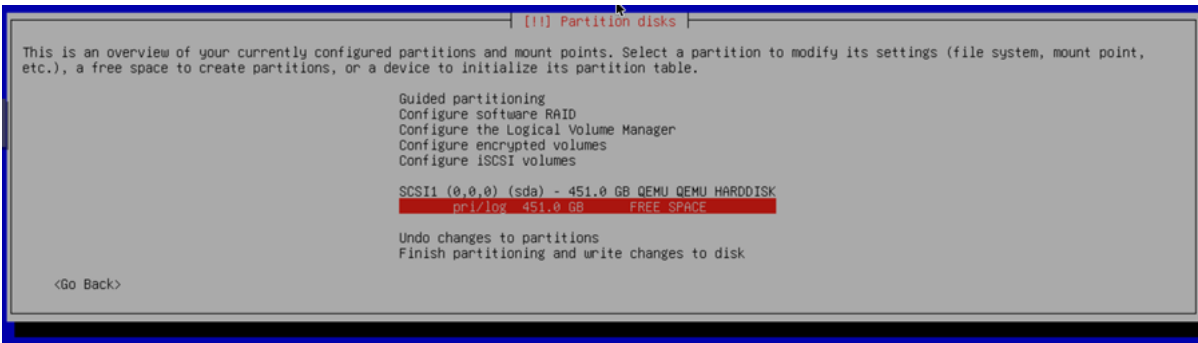
Disk Partitioning Configuration

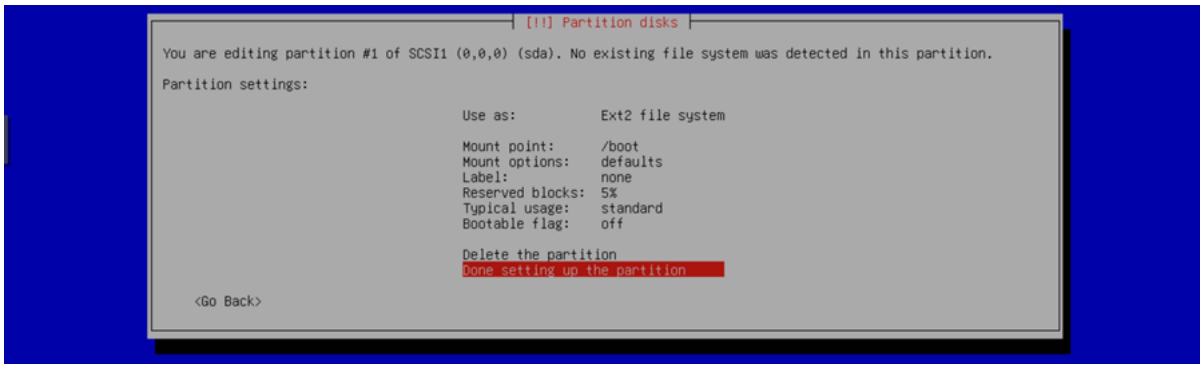
Partition the disks according to the instructions below:

Perform manual partitioning

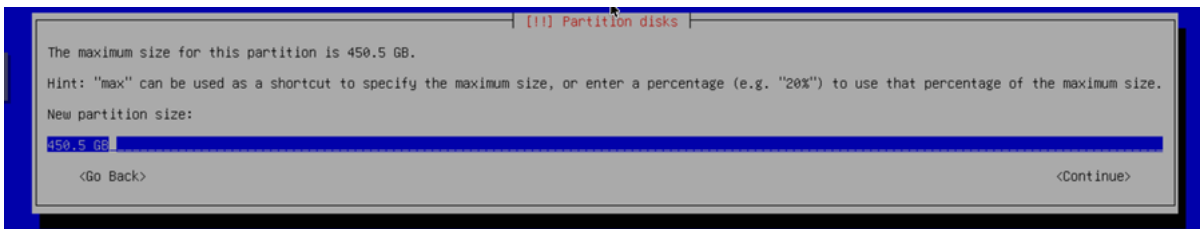
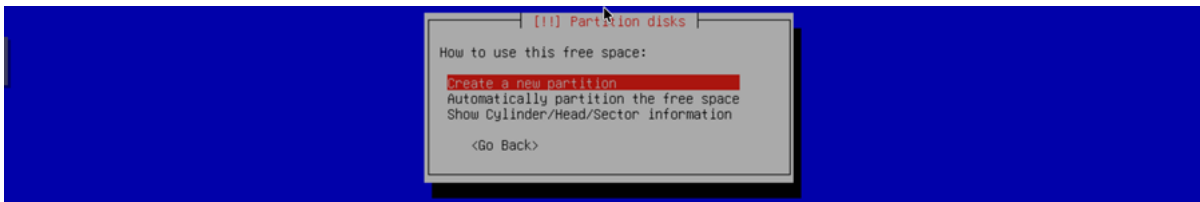
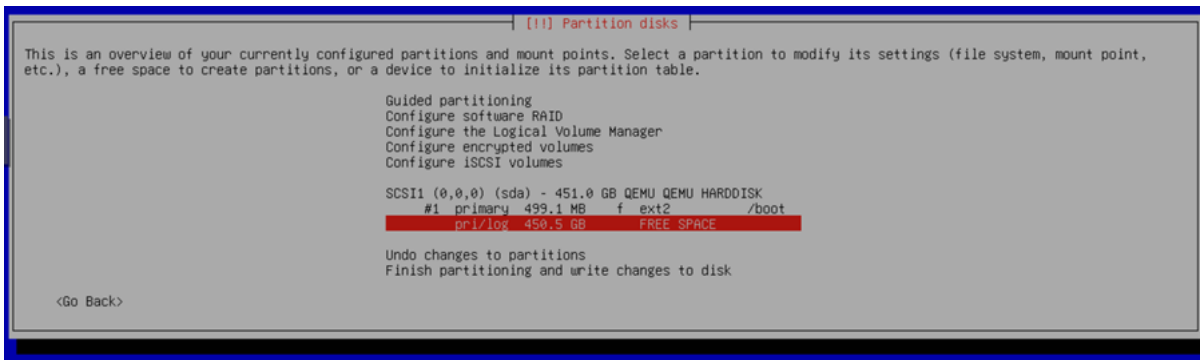


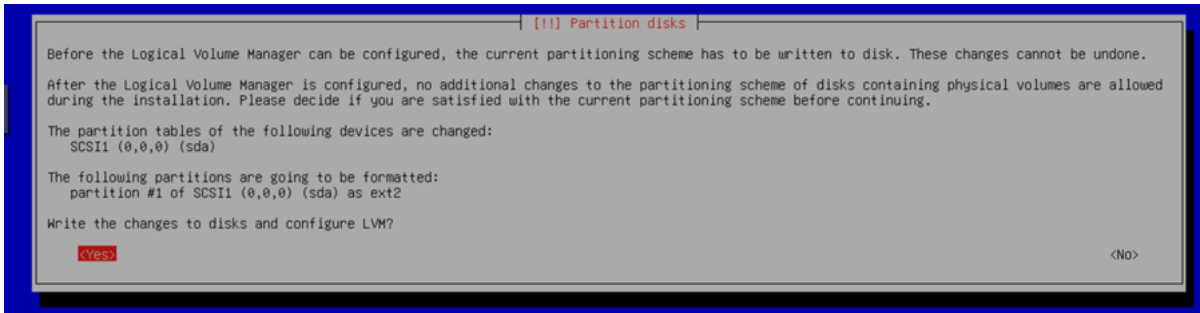
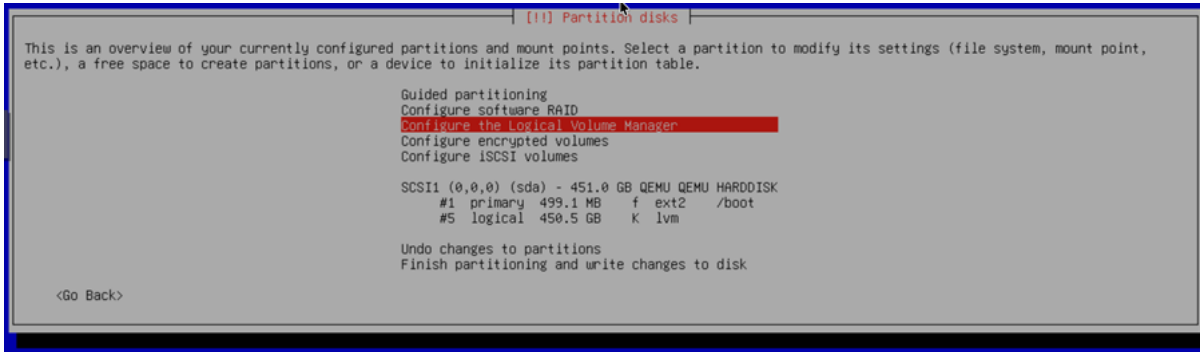
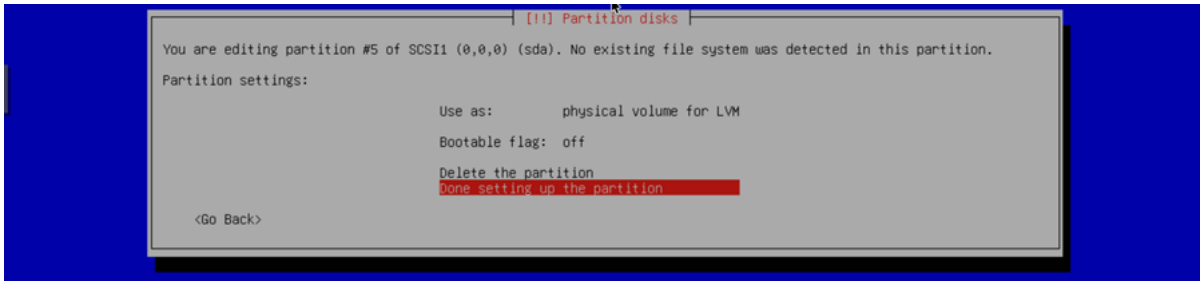
Creating the /boot partition



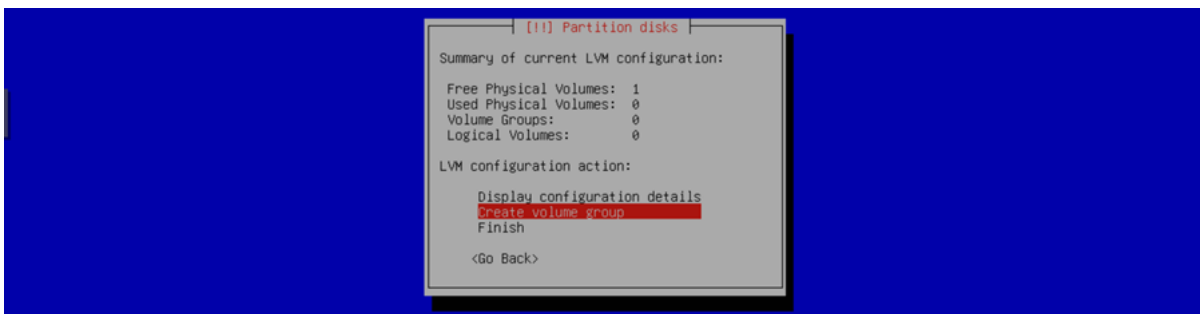


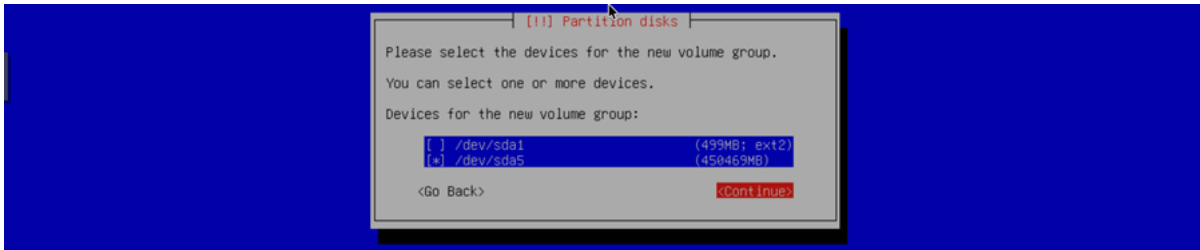
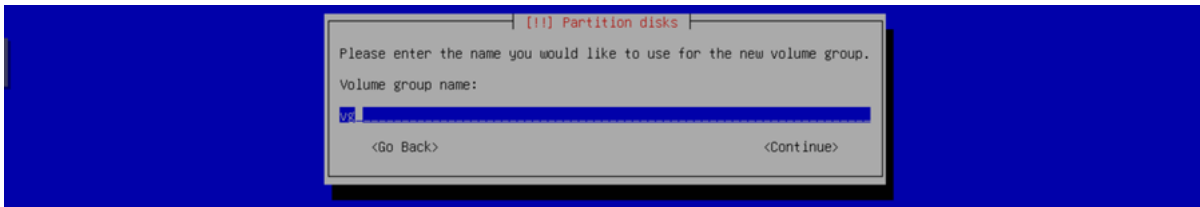
Creating the LVM



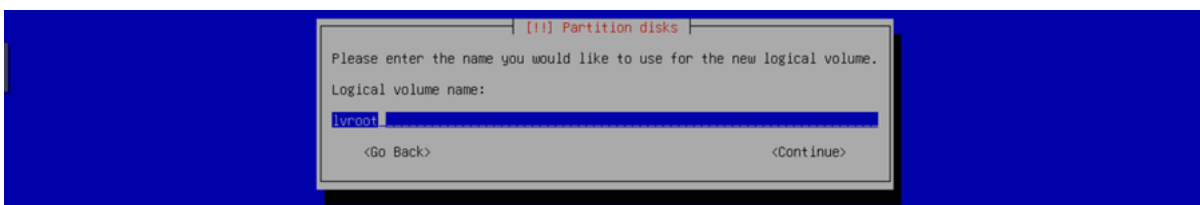
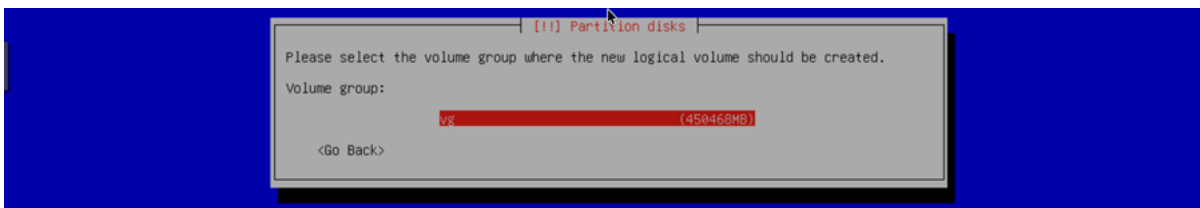
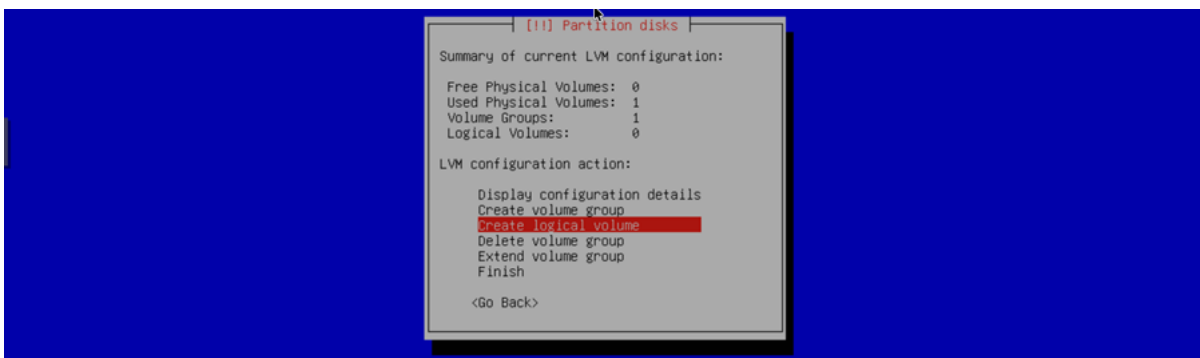


Creating the vg volume group



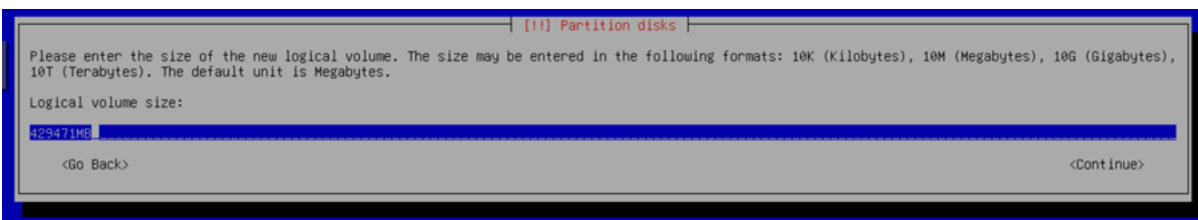
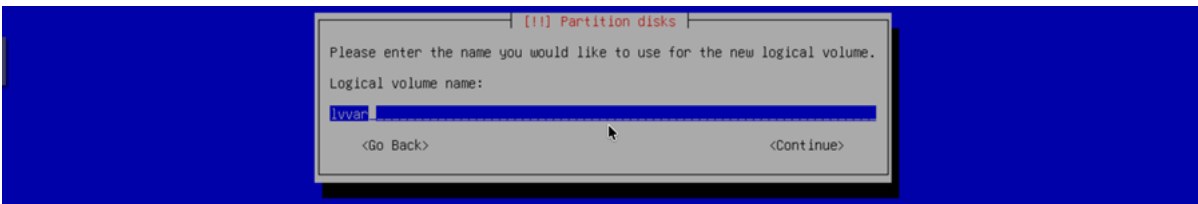
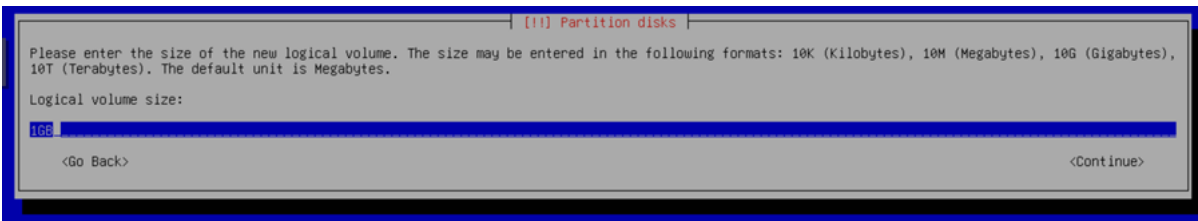


Create the logical volume lvroot

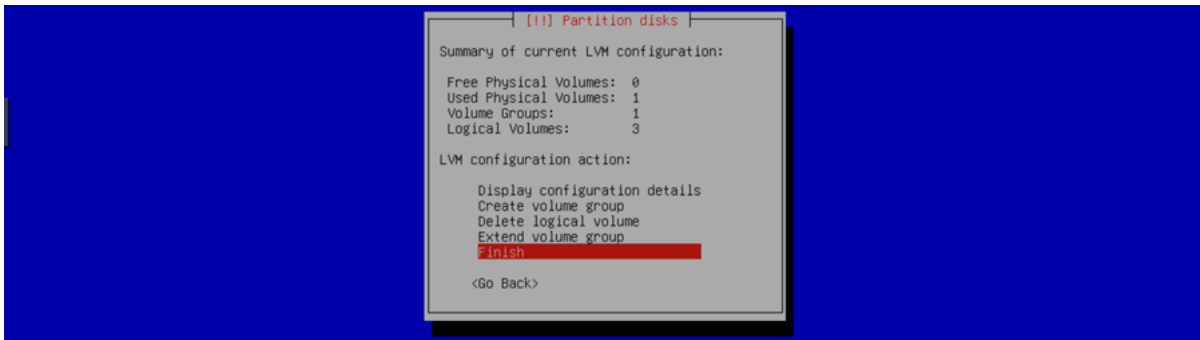
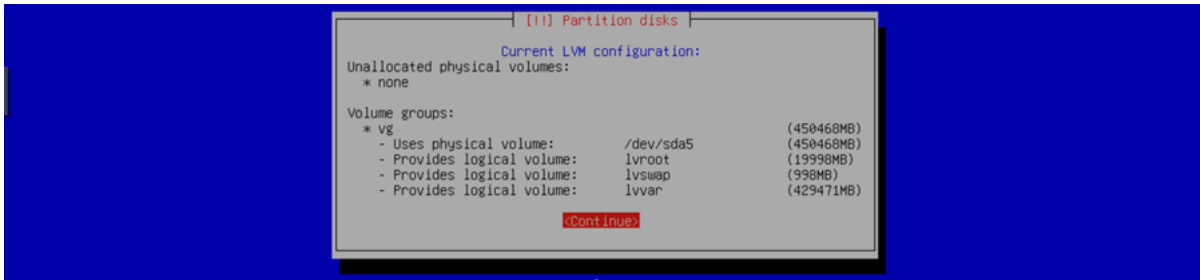




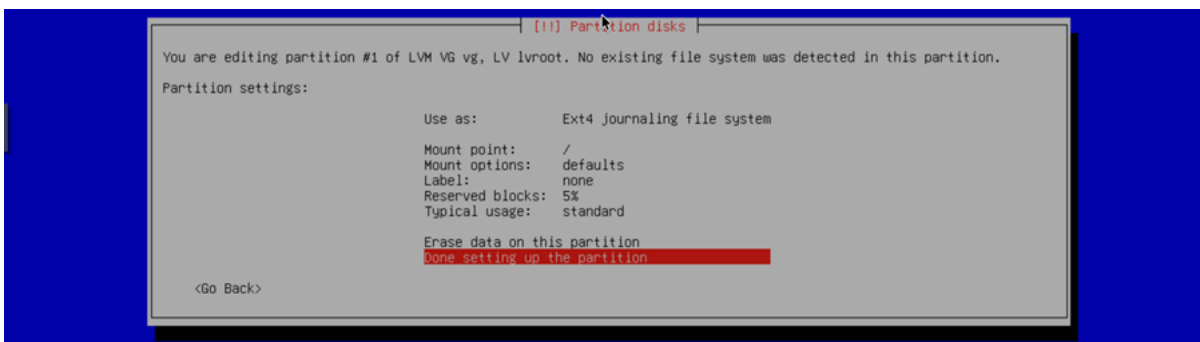
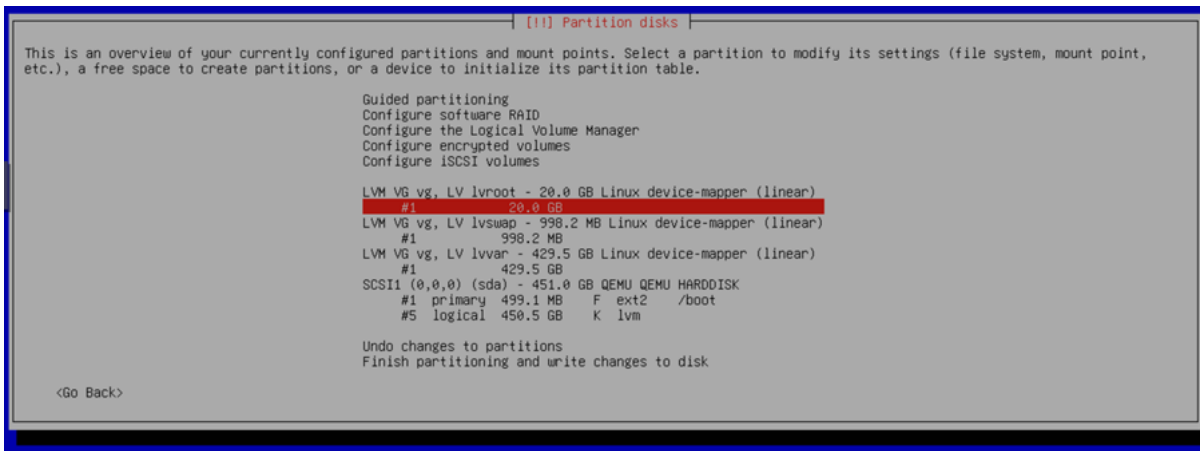
Repeat for the lvswap and lvvar volumes



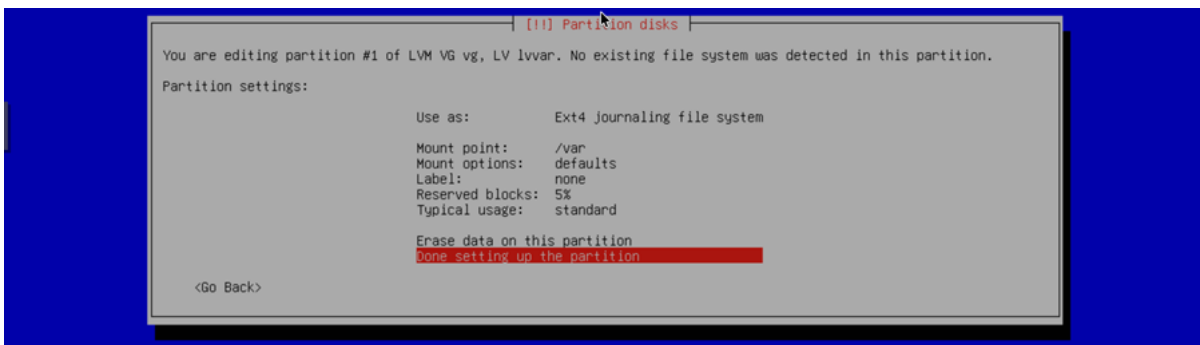
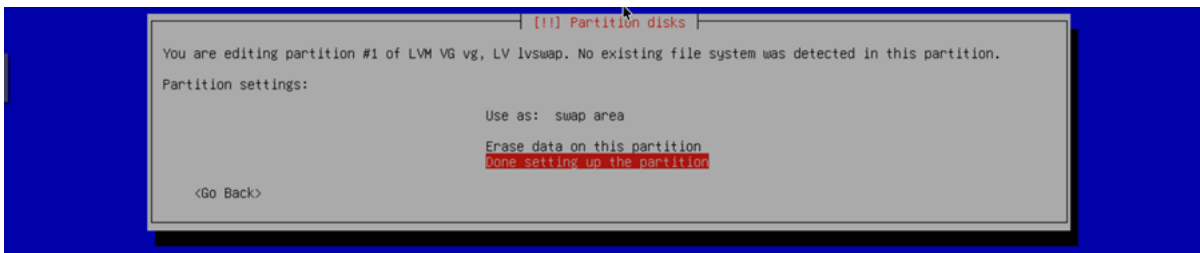
To obtain the following LVM layout:



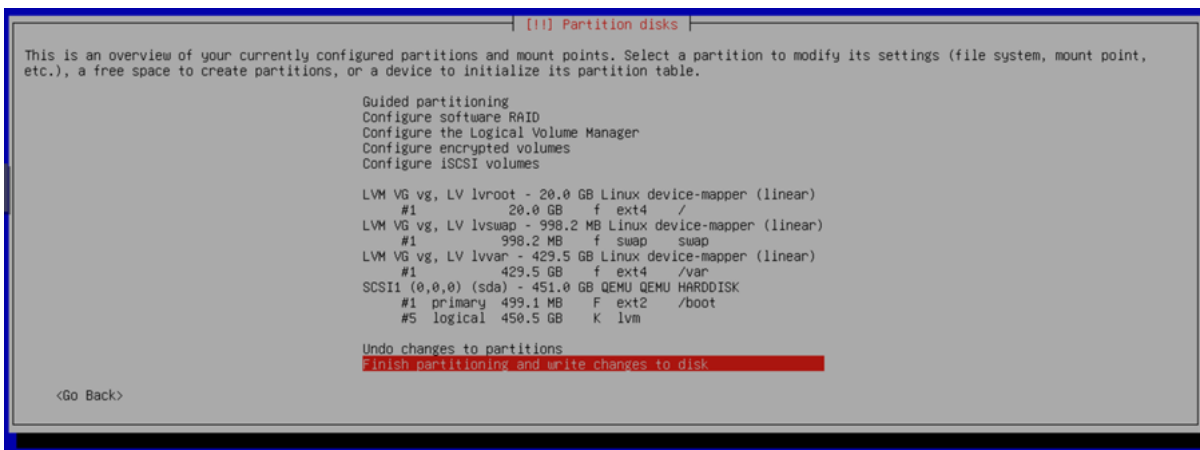
Configure the / partition



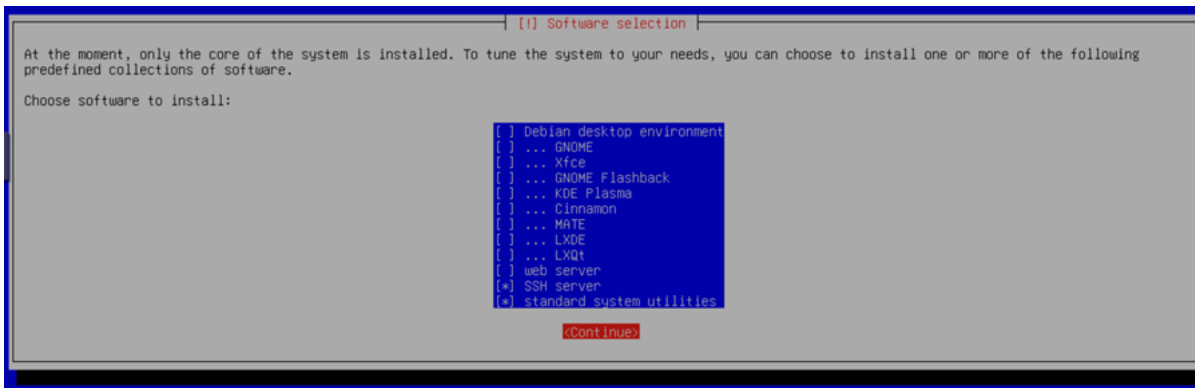
Repeat for each of the swap and /var partitions:



To obtain the following partitioning scheme:



Installing packages



Server verification

Download the verification script from https://dl.medulla-tech.io/nc/check_server_before_install.sh

```
wget https://dl.medulla-tech.io/nc/check_server_before_install.sh
```

run the following commands:

```
chmod +x check_server_before_install.sh
```

```
./check_server_before_install.sh
```

All script tests must pass. Once completed, you can request the installation script via the contact form:

<https://github.com/medulla-tech/medulla/blob/master/README.fr.md>

If you have a support contract, please send the results to delivery@medulla-tech.io. If not, please contact the "Sales" department via our website medulla-tech.io.

Here are the most common errors:

1. Core Dump Limits

Context: The file `/etc/security/limits.d/10-coredump-debian.conf` defines the maximum size of "core dump" files. Our script expects specific values that do not match the current configuration.

How to fix: Edit the file mentioned to match the requirements.

1. Open the file: `sudo nano /etc/security/limits.d/10-coredump-debian.conf`
2. Adjust the lines so they look like this:
 - `* hard core infinity`
 - `root hard core infinity`
 - `* soft core 0`
 - `root soft core 0`

Suggested sources: Debian documentation on `limits.conf` and `core dump`.

2. Number of open files (lsof)

Context: The `lsof` lines for users `xxx` and `messagebus` indicate that the number of currently open files deviates from the value expected by the verification script (often because services are already running or are misconfigured).

How to fix: This is often informative, but if you need to reduce these numbers:

- Identify what these users are doing: `ps -u user_id_in_error`.
- Restart the associated services (e.g., `sudo systemctl restart dbus` for `messagebus`).
- If the expected values are too strict for your use case, you may need to adjust the validation script itself or the global `ulimit` settings.

Suggested sources: `lsof` manual and file descriptor management in Linux.

3. systemd settings (NPROC and SIGPENDING)

Context: The `DefaultLimitNPROC` (maximum number of processes) and `DefaultLimitSIGPENDING` (pending signals) values must be **31541**.

How to fix: You must force these values in the global systemd configuration so that they match the expected values exactly.

1. Edit the configuration file: `sudo nano /etc/systemd/system.conf`
2. Uncomment or add the following lines:
 - `DefaultLimitNPROC=31541`
 - `DefaultLimitSIGPENDING=31541`
3. Reload the configuration and reboot (or use `systemctl daemon-reexec`).

Suggested sources: `systemd-system.conf` documentation on freedesktop.org.

Revision #1

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