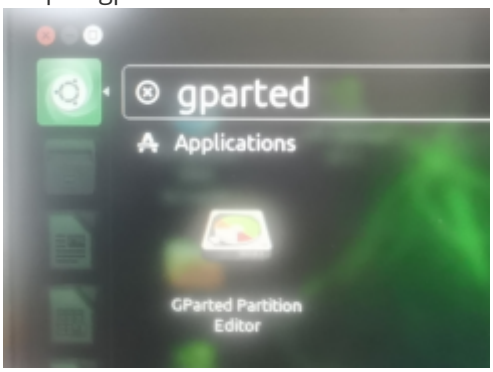
6. Tutorial on capacity expansion

Since we cannot directly expand the space of the running system, we need to remove the SSD first, put it into the SSD box, and then connect it to the computer (virtual machine) before operating.

This tutorial uses a 128G SSD, and the package SSD has now been upgraded to 256GB

1.Open gparted in the virtual machine



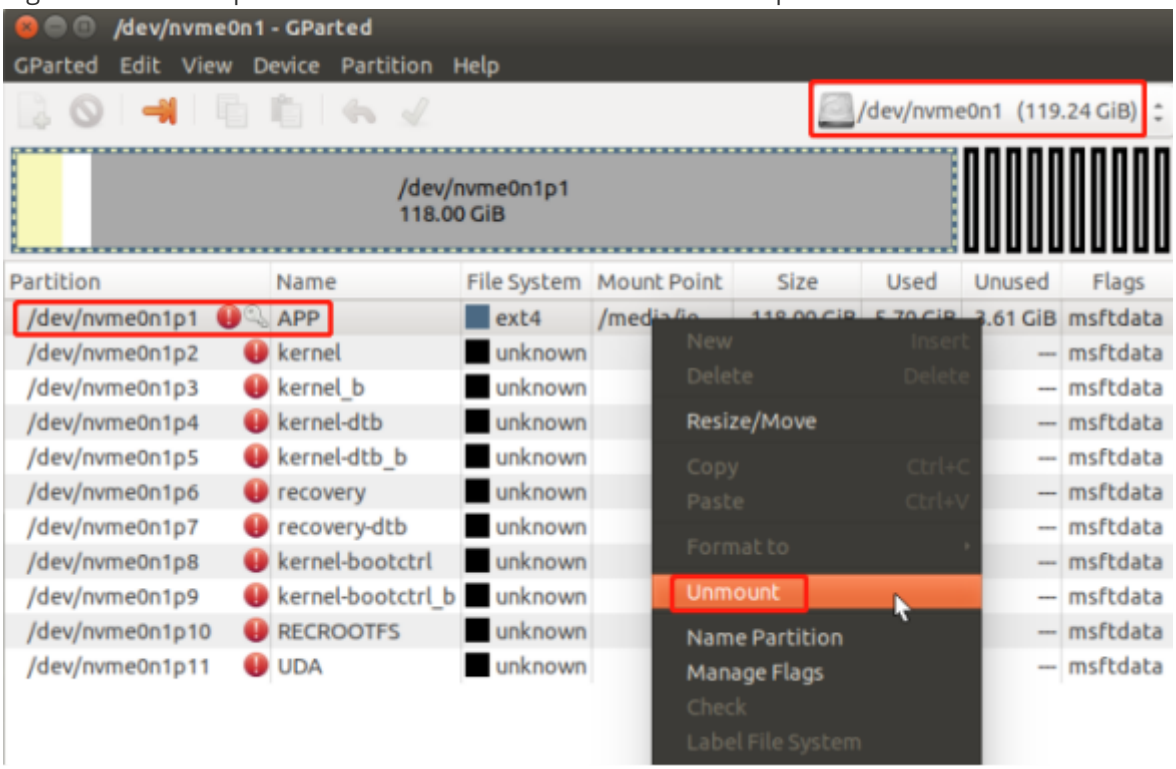
If you don’t have this software, download it first

```
sudo apt install gparted
```

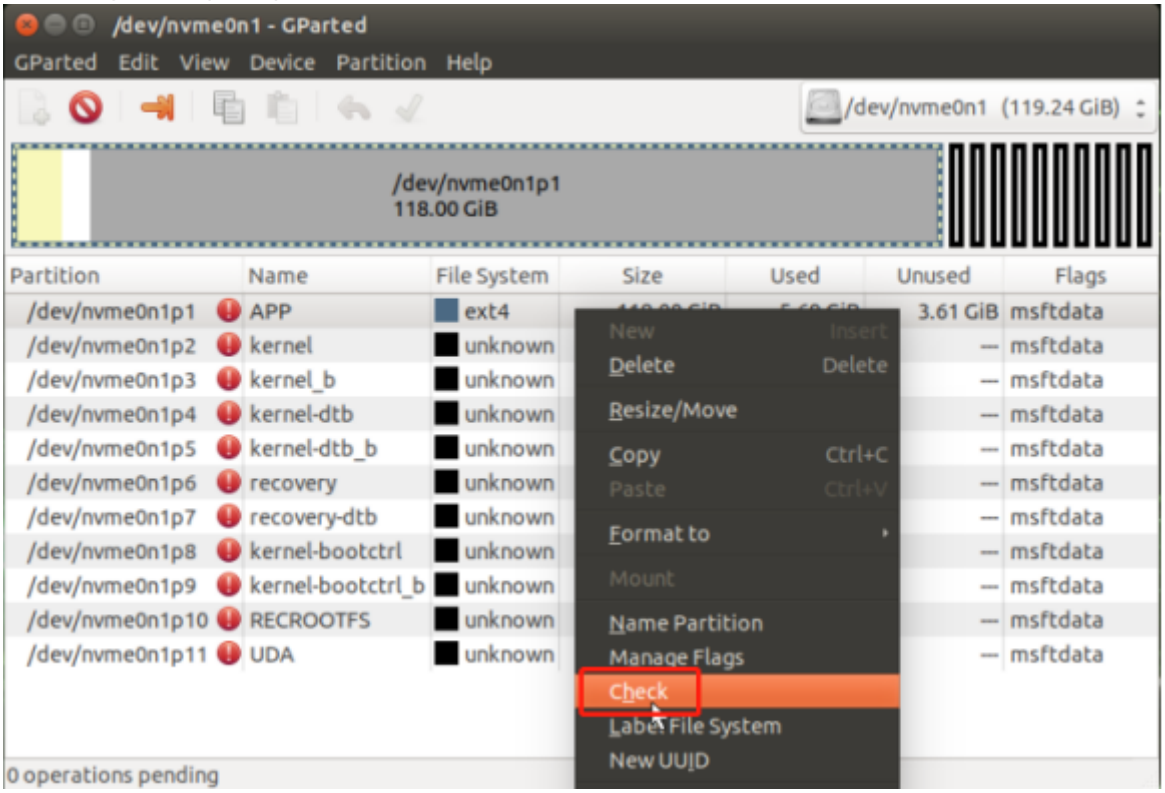
2.Select the corresponding NVME hard disk /dev/nvme0n1 (subject to actual use), check the information, and the APP partition corresponds to Partition /dev/nvme0n1p1. **Note: Be sure to select the correct hard disk number in this step.**

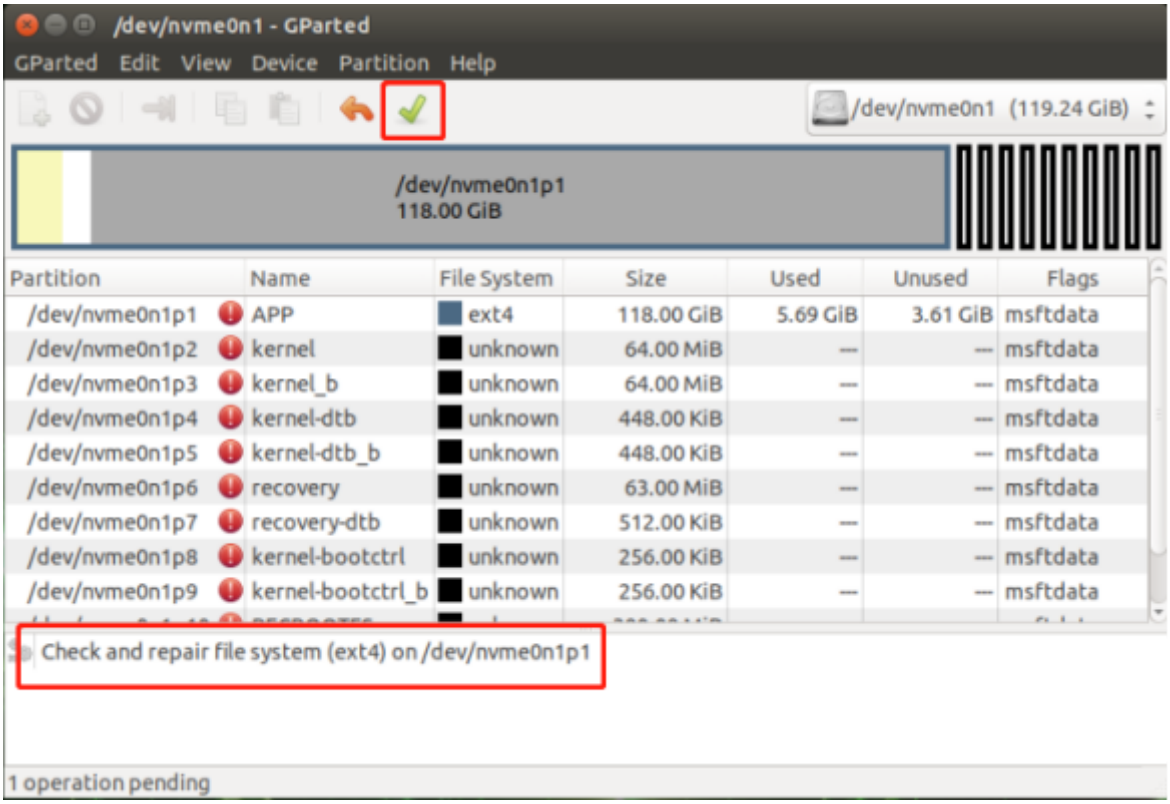
You can see that part of the APP partition is gray, and you need to change the gray part to white for normal. **Color represents: yellow indicates used space, white indicates unused space, and gray indicates unavailable space.** This is because the restored system is compressed, so the internal space needs to be re-checked before it can be expanded to the entire partition capacity.

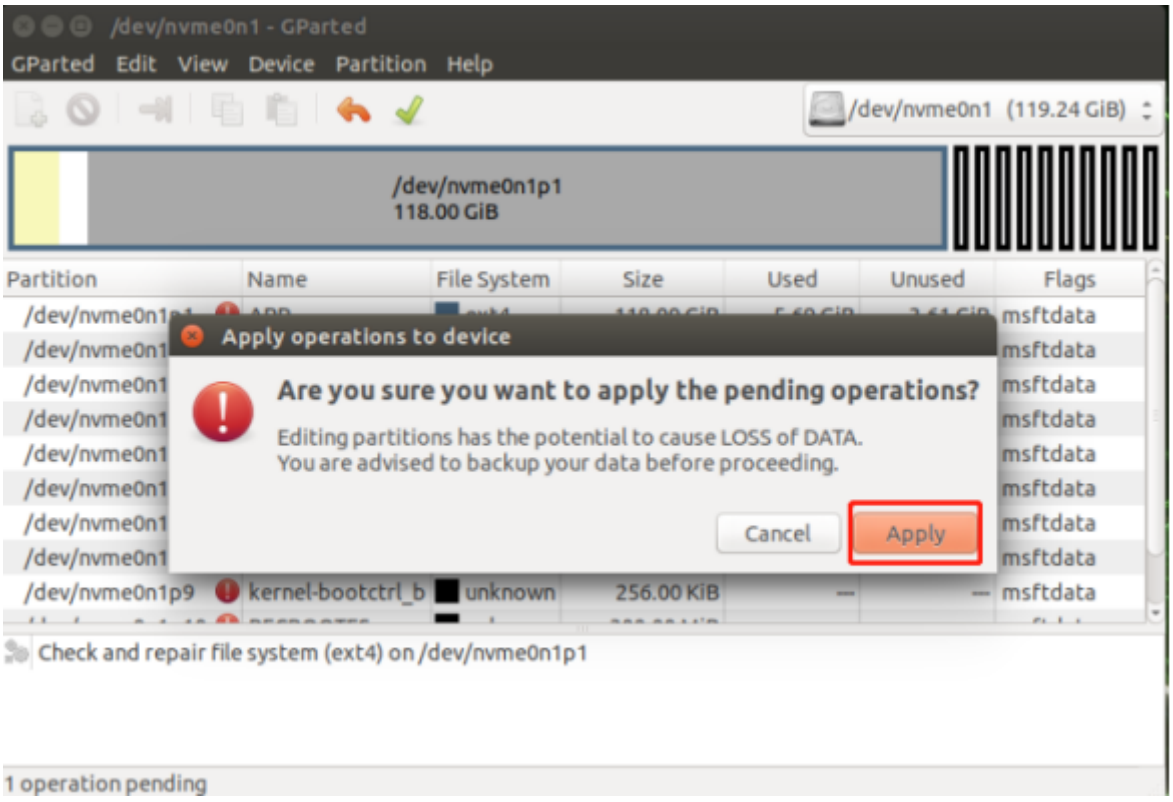
Right-click the APP partition and click Unmount to unmount the partition.



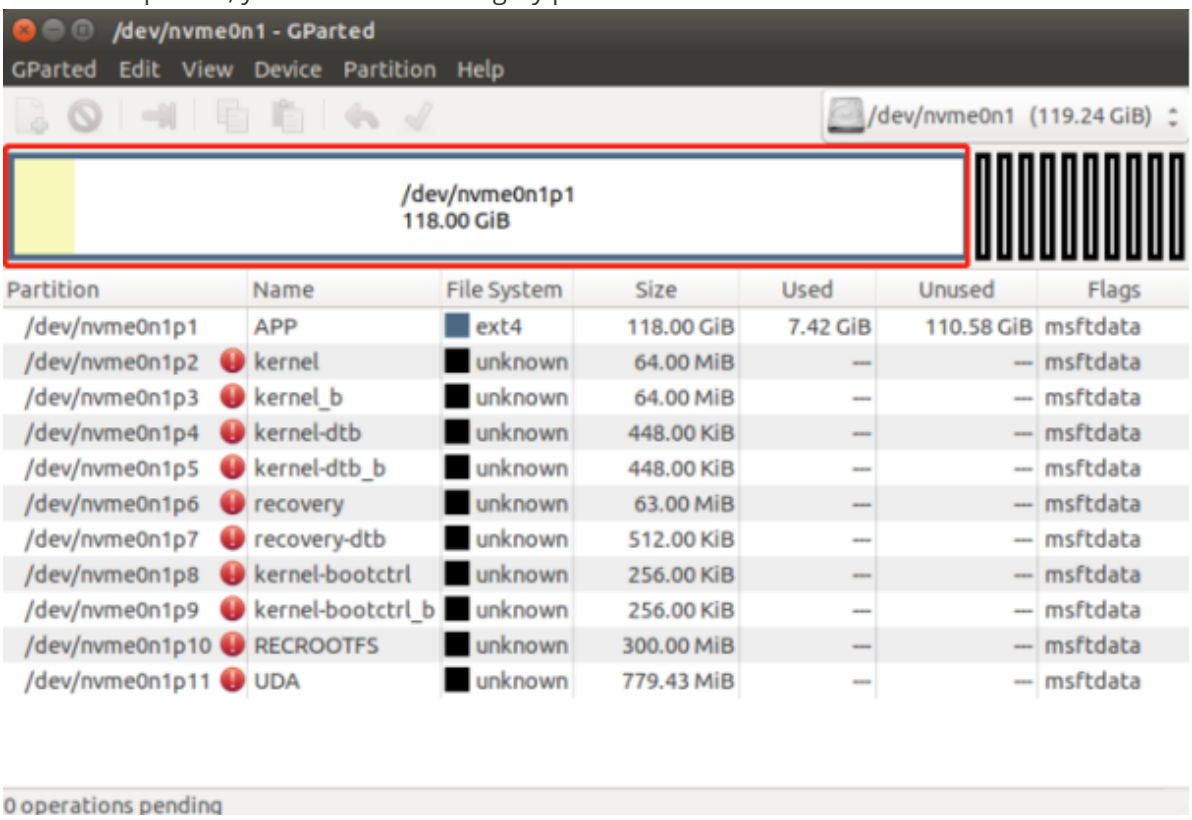
3.Select the APP partition, right-click again, select Check, and then complete the operation according to the prompts.




/dev/nvme0n1 - GParted
GParted Edit View Device Partition Help
/dev/nvme0n1 (119.24 GiB)
/dev/nvme0n1p1
118.00 GiB
Partition Name File System Size Used Unused Flags
/dev/nvme0n1p1 APP ext4 118.00 GiB 5.69 GiB 3.61 GiB msftdata
/dev/nvme0n1p2 kernel unknown 64.00 MiB --- --- msftdata
/dev/nvme0n1p3 kernel_b unknown 64.00 MiB --- --- msftdata
/dev/nvme0n1p4 kernel-dtb unknown 448.00 KiB --- --- msftdata
/dev/nvme0n1p5 kernel-dtb_b unknown 448.00 KiB --- --- msftdata
/dev/nvme0n1p6 recovery unknown 63.00 MiB --- --- msftdata
/dev/nvme0n1p7 recovery-dtb unknown 512.00 KiB --- --- msftdata
/dev/nvme0n1p8 kernel-bootctrl unknown 256.00 KiB --- --- msftdata
/dev/nvme0n1p9 kernel-bootctrl_b unknown 256.00 KiB --- --- msftdata
Check and repair file system (ext4) on /dev/nvme0n1p1
1 operation pending


/dev/nvme0n1 - GParted
GParted Edit View Device Partition Help
/dev/nvme0n1 (119.24 GiB)
/dev/nvme0n1p1
118.00 GiB
Partition Name File System Size Used Unused Flags
Apply operations to device
Are you sure you want to apply the pending operations?
Editing partitions has the potential to cause LOSS of DATA.
You are advised to backup your data before proceeding.
Cancel
Apply
/dev/nvme0n1p9 kernel-bootctrl_b unknown 256.00 KiB --- --- msftdata
Check and repair file system (ext4) on /dev/nvme0n1p1
1 operation pending

4.After completion, you can see that the gray part turns white.



5.Complete the removal of the SSD from the SSD box and install it back.