Your /dev/xvda3 partition is an **LVM physical volume (LVM2\_member)**, and your root filesystem (/) is an **XFS volume inside LVM** (/dev/mapper/ubuntu--vg-ubuntu--lv).

This means you **cannot resize /dev/xvda3 directly**. Instead, you need to:

1. Expand the LVM partition (/dev/xvda3).

2. Resize the LVM physical volume.

3. Extend the logical volume.

4. Resize the XFS filesystem.

**Step 1: Expand the Partition /dev/xvda3**

Run:

sudo growpart /dev/xvda 3

This increases the partition size to fill the available space.

Check if it was expanded:

lsblk

**Step 2: Resize the LVM Physical Volume**

sudo pvresize /dev/xvda3

This makes LVM recognize the new space.

Verify:

sudo pvdisplay

**Step 3: Extend the Logical Volume (ubuntu--lv)**

Find the volume group name:

sudo vgdisplay

Find the logical volume path:

sudo lvdisplay

Extend the volume:

sudo lvextend -l +100%FREE /dev/mapper/ubuntu--vg-ubuntu--lv

This allocates **all remaining free space** to the logical volume.

**Step 4: Resize the XFS Filesystem**

Since your filesystem is **XFS**, use:

sudo xfs\_growfs /

Verify the new size:

df -h

**Final Check**

Run:

lsblk

df -h

Your root filesystem (/) should now reflect the expanded storage.