<center>SA</center>

1. Playing With LVM

1.1 Storage for NASA Course

https://www.tecmint.com/extend-and-reduce-lvms-in-linux/

https://www.systutorials.com/docs/linux/man/8-lvresize/

- pvcreate /dev/sdb   /dev/sdc

  vgcreate storage-vg /dev/sdb   /dev/sdc
- lvcreate –n student -L 150G storage-vg

  mkfs -t ext4 /dev/storage-vg/student
- lvcreate –n ta -L 350G storage-vg

  mkfs -t ext4 /dev/storage-vg/ta
- lvcreate -n hsinmu -l 100%FREE storage-vg

  mkfs -t ext4 /dev/storage-vg/hsinmu

1.2 Need More Space

https://unix.stackexchange.com/questions/98339/how-do-i-extend-a-partition-with-a-lvm-and-the-contained-physical-volume-and-log

https://www.rootusers.com/how-to-increase-the-size-of-a-linux-lvm-by-adding-a-new-disk/

- lvresize --resizefs -L -150G /dev/storage-vg/ta

  lvresize --resizefs -L +150G /dev/storage-vg/hsinmu

  pvcreate /dev/sdd

  vgextend storage-vg /dev/sdd

  lvextend /dev/storage-vg/hsinmu /dev/sdd

  resize2fs /dev/storage-vg/hsinmu

2. PPT Alert

Discuss with B06902130

https://www.facebook.com/PttTW/

https://www.ptt.cc/bbs/PttHistory/M.1509711325.A.1FF.html

At 2017.10.30 Mon, 9 pm. ppt started to go wrong. People failed to look up ppt board. Users who try to post or write email were being disconnected and unable to login again. At 21:47, every user was unable to login. After one hour, system manager of ptt posted that there were problems with disk array. ppt use RAID 6 to implement the disk array, which allows at max two disks broken but users can still enjoy service. Unfortunately, ppt broke 2 disks and when they try to do recovery, the third disk broke down. So the system totally shut down and needed time to fix. System manager announced that what they have to do is to repair disk array and restore back up data to backup machine. First, they let disk array recover access. Later, they had to do back up and check data system and recovery. Afterward, they will do some

extra test to avoid system errors and keep most part of data be saved successfully. Only data added or edited a short time before server crash would lose. Even though backup machine's performance is not as good as the original one, it will guarantee users use ptt quicker. And they also use backup system to restore data, if the original machine's data is severe damage, they can use backup system to give service. After restore and repair the system and save data, it can switch back to origin machine again. At 11.03, 9:52 am, ppt finally available again to public. To prevent this kind of tragedy and provide better solution, system manager should backup data regularly so when something happens, they will not lose too many data. Check up their disk condition is another important thing to do. They should replace the disks after they had been used a certain period of time. Do not change every disk at the same time and buy different brands of disk is another way to prevent many disks breaking down in a time for the disks may have the same lifespan.