# LVM Advanced Cheatsheet

| Logical Volumes | Usage |
|---|---|
| Create a RAID0 LV | lvcreate --name lvname --stripes 3 --stripesize 4 --size 100G vgname |
| Create a RAID5 LV | lvcreate --type raid5 --stripes 3 --size 1G --name lvname vgname |
| Create a RAID10 LV | lvcreate --type raid10 --stripes 2 --mirrors 1 --size 10G --name lvname vgname |
| Create an LV with mirror(s) | lvcreate --name lvname --mirrors 1 --size 50G  vgname |
| Split LV from mirror | lvconvert --splitmirrors 2 --name copy /dev/vgname/lvname |
| Add tag to LV | lvchange --addtag  grouptag /dev/vgname/lvname |

| Volume Groups | Usage |
|---|---|
| Splitting a Volume Group | vgsplit vgname newvg /dev/sdb1 |
| Combining Volume Groups | vgmerge -v newvg oldvg |
| Move Volume Group to new host | vgchange -an  vgname<br>vgexport vgname |

| Snapshots | Usage |
|---|---|
| Create snapshot | lvcreate --size 100G --snapshot --name snap /dev/vgname/lvname |
| Create thin-provisioned snapshot of thin provisioned volume | lvcreate --shapshot  --name thinsnap /dev/vgname/thinlvname |
| Merge snapshot | lvconvert --merge /dev/vgname/snap |
| Marge all snapshots with tag | lvconvert --merge @grouptag |

| Cache Volumes | Usage |
|---|---|
| Create cache data volume | lvcreate -L 2G -n lv_cache VG /dev/sdf1 |
| Create cache metadata volume | lvcreate -L 12M -n lv_cache_meta VG /dev/sdf1 |
| Create cache pool | lvconvert --type cache-pool --cachemode writethrough --poolmetadata VG/lv_cache_meta VG/lv_cache |
| Create cache logical volume | lvconvert --type cache --cachepool VG/lv_cache VG/lv |
| Create thinpool on cached volume | lvconvert --thinpool vg/cvol |