Lesson 3. Homework Assignment

- 1. Pseudo devices
 - a. Where in a Linux system will you look for device files?
 - i /dev
 - b. What pseudo device is generates zeroes
 - i. /dev/zero
 - c. What pseudo device is a blackhole
 - i. /dev/null
 - d. What devices are generate random characters
 - i. /dev/random
- 2. Hardware Devices
 - a. What device is usually carrying a root filesystem?
 - i. /root
 - b. You already have a root volume and one data volume attached, and you just attached one more volume to the system. What device name this volume will most likely have?
 - i. /dev/xvda or /dev/xvdf /data
- 3. Filesystem
 - a. What would be a linux command for creating xfs filesystem on a attached device
 - i. Mkfs.xfs/dev/
- 4. Hidden files
 - a. Why hidden files exists
 - i. These files are necessary for the operation system and keeping them hidden will protect them from accidental deletion
 - b. How to list all hidden files in Home directory
 - i. Ls -a/home/
- 5. Linux user data
 - a. You have a task to write a script that will archive all users data on a Linux host. Where will you be looking for a list of folders to archive?
 - i. /usr .bash logout
- 6. Temporary and virtual folders.
 - a. You have a task to write a script that will archive/backup all data on a Linux host. What folders from the 1st level of the root filesystem are you going to add to an exclusion list?
 - i. /dev/tempfs/archive/backup

Optional:

- 7. Practice assignment
 - a. Create VM in GCP. Use a CentOS7 image with additional volume.
 - b. Connect to the host with ssh
 - c. Create single primary partition on the non-root volume
 - d. Format the partition to xfs
 - e. Create folder '/mount/mydata'
 - f. Mount the partition to `/mount/mydata` folder
 - g. Check linux disks layout with 'dh -h'
 - h. Update fstab file to have it automounted
- 8. Permissions. Please provide exact linux command that will do requested permission on `/tmp/mytestfile`
 - a. Set read only for all users
 - i. Chmod 644 /tmp/mytestfile //owner can Read and Write, others can Read
 - b. Set read, write and execute permission for file owner only
 - i. Chmod 600 /tmp/mytestfile //Only Owner can Read and Write
 - c. Revoke only execute permission
 - i. Chmod -wx /tmp/mytestfile
 - d. Revoke write permission for group
 - e. Chmod 750 /tmp/mytestfile

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