For this assignment by exception I chose alma Linux, because I have a problem with all openSUSE distributions on my virtualbox, which take more time that I can spend for debugging/solving it.   
I have experience with both systems from the previous LSA course, so switching is not a problem.

# TASK 1

Preparations:

6 disks (5GB each). The system must recognize them as sd{b..g}

lsblk

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Since the both tasks are based on ZFS, First we have to add the repository, create zfs.conf and reboot the machine

Check if zfs is properly installed:

sudo modprobe zfs

sudo zfs version

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If we want to have Key File to automount the pool we have to create it first and after that encrypted pool must be created

# create key file:

sudo mkdir -p /root/zfs-keys

sudo chmod 700 /root/zfs-keys

sudo dd if=/dev/urandom of=/root/zfs-keys/zfs.key bs=32 count=1

sudo chmod 600 /root/zfs-keys/zfs.key

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A screenshot of a computer

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# create encrypted pool (3x2):

sudo zpool create \

  -O encryption=on \

  -O keyformat=raw \

  -O keylocation=file:///root/zfs-keys/zfs.key \

  zfs-raid10-3x2 \

  mirror /dev/sd{b,c} \

  mirror /dev/sd{d,e} \

  mirror /dev/sd{f,g}

# for 2x3 is pretty much the same, but with two mirrors and zfs-raid10-2x3

# check

sudo zpool status

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sudo zfs get encryption

A black screen with white text

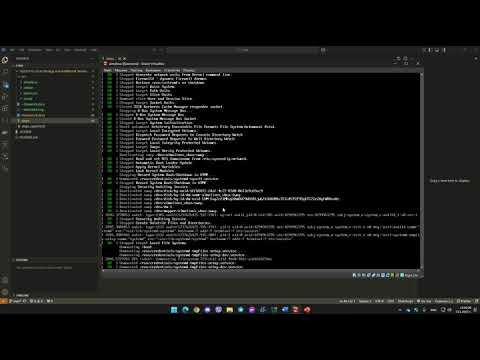
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Demo:

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Video demo:

[](https://www.youtube.com/embed/QJmRQeYX6XA?feature=oembed)