BOOTING PROCESS TROUBLESHOOTING

DATE – 10-12-2024

Condition - GRUB2 File crashed in BIOS System

GRUB 2 Error Message-1

To demonstrate this, let's remove the `grub.cfg` file from the system and restart it. If the `grub.cfg` file is missing or corrupted, the GRUB 2 boot loader will show the following error message.

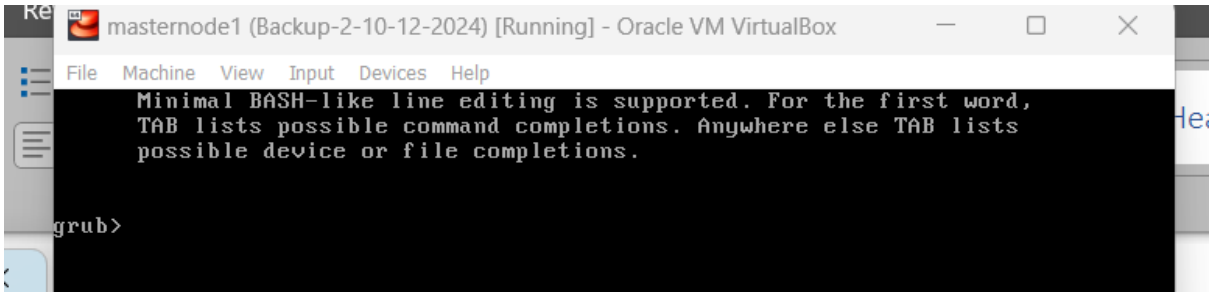
Manually deleting the grub

```bash file

rm -rf /boot/grub2/grub.cfg

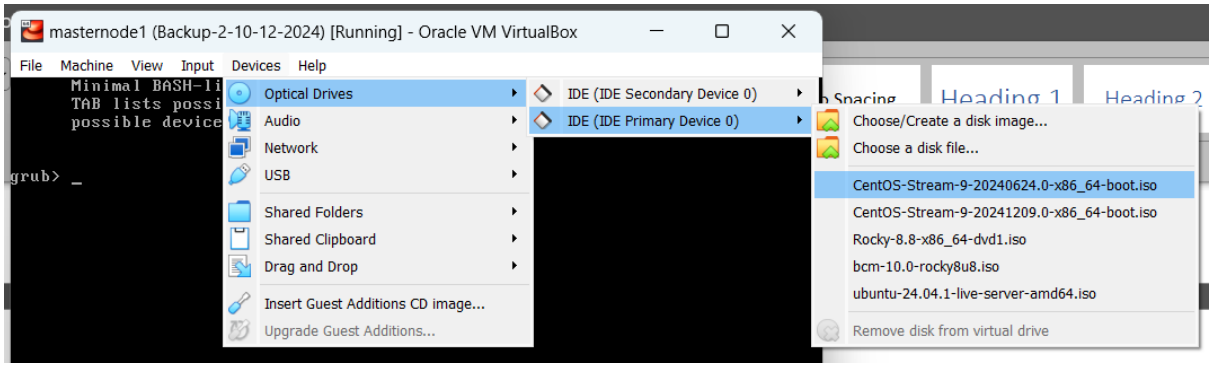
reboot

After the reboot, you will see the following error message.

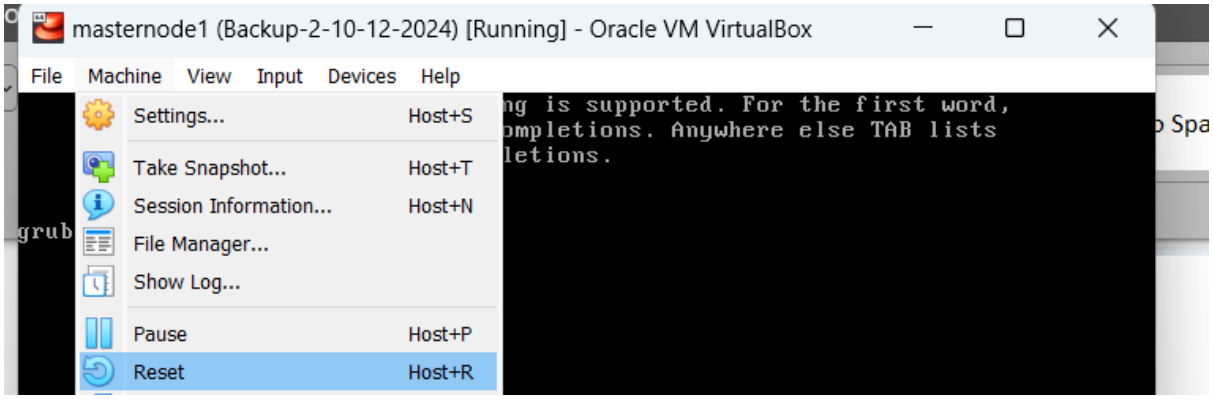


Step 1 - How to Reinstall Corrupted GRUB 2 on RHEL 8, Rocky, CENTOS 9

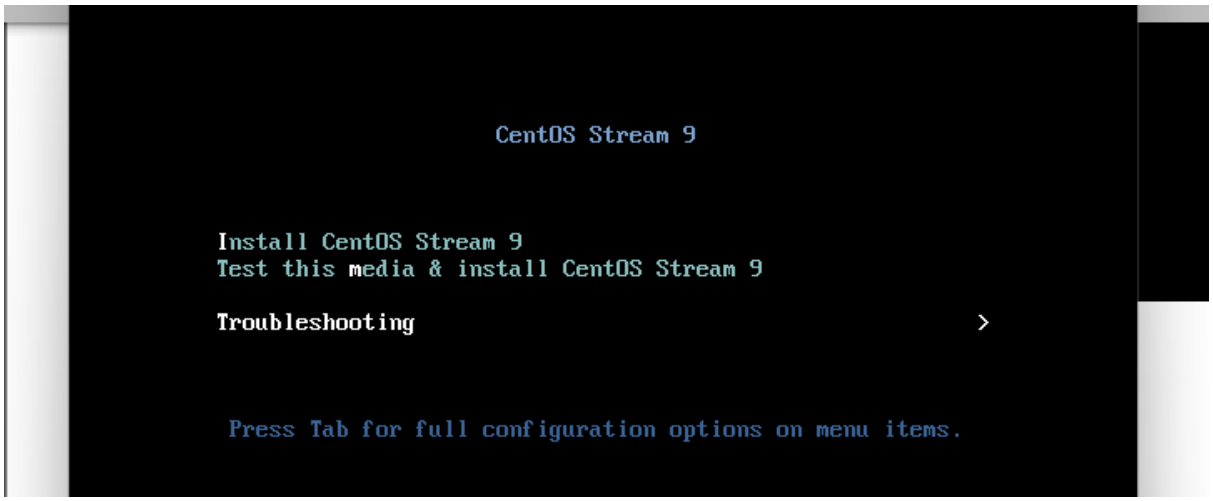
To reinstall or recover the grub.cfg file or grub2 directory, you need to boot your system with the installation DVD/ISO image. On the boot screen of Red Hat 8, select the 'Troubleshooting' option and press Enter



Restart the Virtual machine (Master node1)

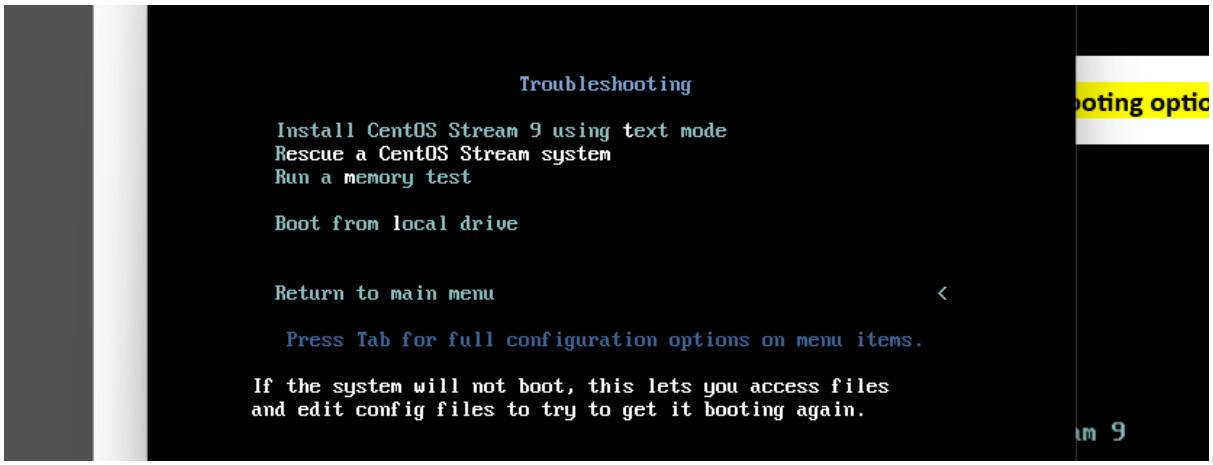


Troubleshooting Screen appear on screen , Click the Troubleshooting option

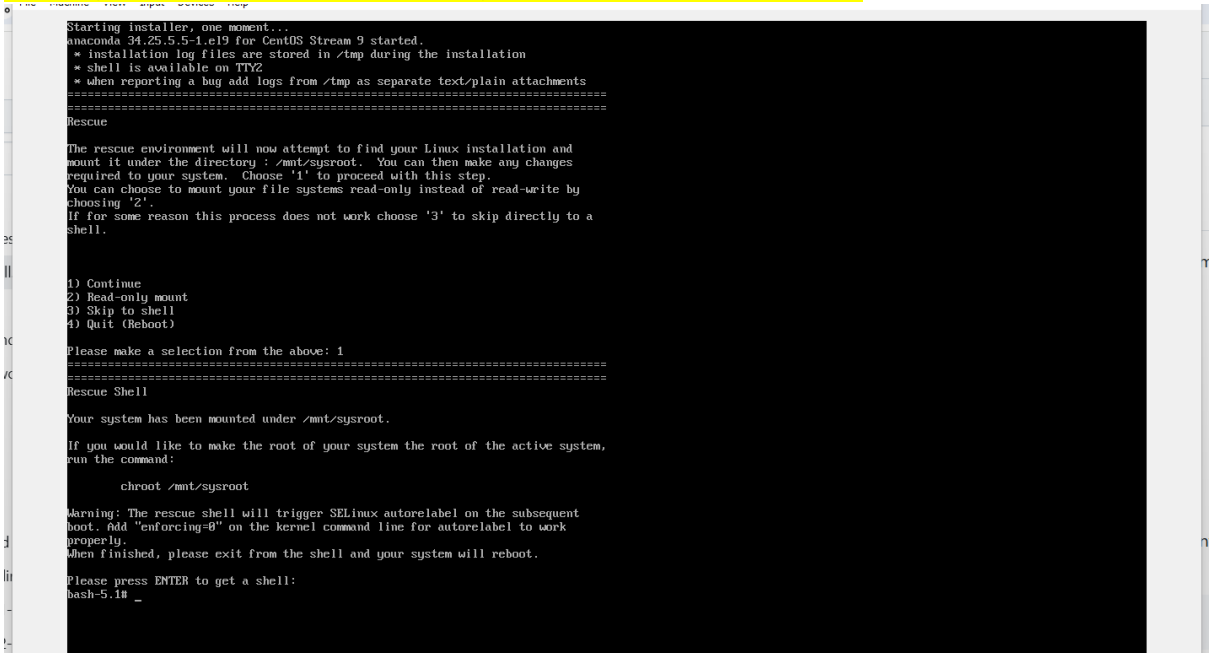


SELECT OPTION – RESCUE OPTION – RESCUE A CENTOS STREAM SYSTEM

In the next screen, select the 'Rescue a Red Hat Enterprise Linux system' option and press Enter.



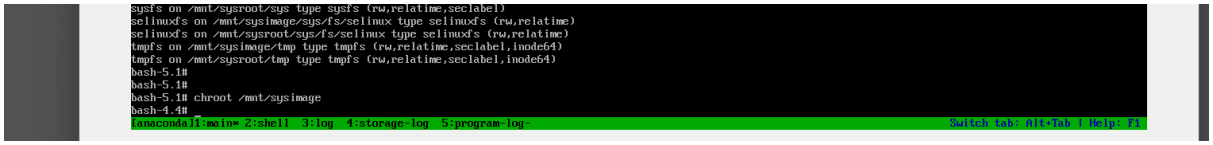
Select Option - On the next screen, select option '1 (Continue)' and hit 'Enter'.



Run the below command

#mount

See the last line , /mnt/sysroot/ (ro - read only), we have to change as read write (rw) option



 # chroot /mnt/sysimage

Recovering the Corrupted GRUB 2 Bootloader -

Install GRUB2 in the primary hard disk, it would be /dev/sda. The grub-install command installs GRUB onto a given device, which includes copying GRUB images into the target directory (generally /boot/grub2).

 # grub2-install /dev/sda

Create a configuration file for GRUB2. The grub2-mkconfig command creates a new configuration file grub.cfg based on the current system configuration. This command uses the /etc/default/grub file and the customizable scripts in the directory /etc/grub.d/ when generating the grub.cfg file

#grub2-mkconfig -o /boot/grub2/grub.cfg or grub2.cfg

```
bash-4.4#
bash-4.4# grub2-mkconfig -o /boot/grub2/grub2.cfg
Generating grub configuration file ...
done
bash-4.4#
```

Enable the SELinux relabeling process on the next system boot:

 # touch /.autorelabel

```
bash-4.4#
bash-4.4#
bash-4.4# touch /.autorelabel
bash-4.4#
```

Exit the chroot environment and reboot the system by executing the exit command twice:

#exit

Note: The system will automatically perform the relabeling process of all files, and the system will automatically restart when the relabeling process is complete.

Remove the Attached DVD or ISO file from Virtual Machine, So avoid the system to boot from attached ISO image

Then Reboot or Restart the VM, Below GRUB bootloaded image will load in Screen