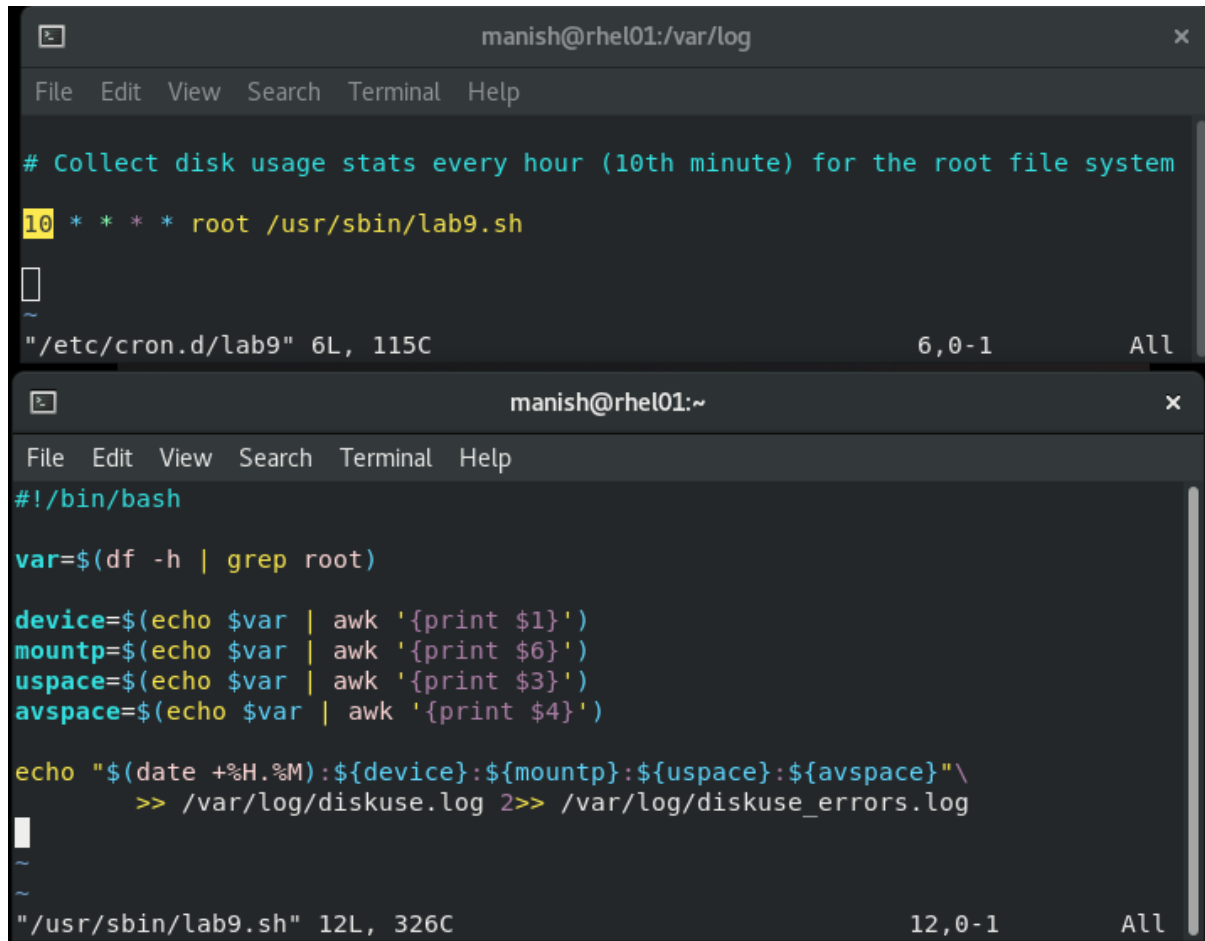


Assignment: Lab 9: Scripting and Scheduling Tasks

Return 1:



The image shows two terminal windows. The top window is titled 'manish@rhel01:/var/log' and shows a cron job being added to the crontab. The command is `* * * * * root /usr/sbin/lab9.sh`. The bottom window is titled 'manish@rhel01:~' and shows the contents of the script `/usr/sbin/lab9.sh`. The script uses `df -h` to get disk usage for the root filesystem, extracts the device, mount point, and available space using `awk`, and then appends this information to `/var/log/diskuse.log` and `/var/log/diskuse_errors.log` along with the current date and time.

```
manish@rhel01:/var/log
File Edit View Search Terminal Help

# Collect disk usage stats every hour (10th minute) for the root file system
10 * * * * root /usr/sbin/lab9.sh

~/
"/etc/cron.d/lab9" 6L, 115C 6,0-1 All

manish@rhel01:~
File Edit View Search Terminal Help
#!/bin/bash

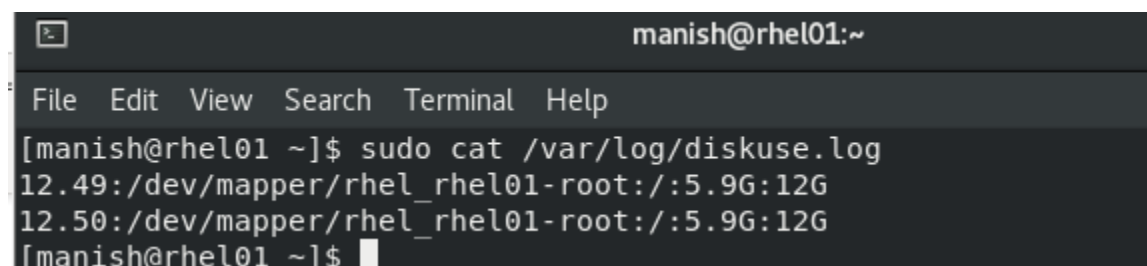
var=$(df -h | grep root)

device=$(echo $var | awk '{print $1}')
mountp=$(echo $var | awk '{print $6}')
uspace=$(echo $var | awk '{print $3}')
avspace=$(echo $var | awk '{print $4}')

echo "$(date +%H.%M):${device}:${mountp}:${uspace}:${avspace}" \
    >> /var/log/diskuse.log 2>> /var/log/diskuse_errors.log

~/
~/
"/usr/sbin/lab9.sh" 12L, 326C 12,0-1 All
```

The log file works nicely. (configured it to run every minute for testing purpose.)



The image shows a terminal window titled 'manish@rhel01:~'. The user has run the command `sudo cat /var/log/diskuse.log`. The output shows two lines of log data, each representing a disk usage snapshot at 12.49 and 12.50. The data is formatted as `HH.MM:/dev/mapper/rhel_rhel01-root:/:5.9G:12G`.

```
manish@rhel01:~
File Edit View Search Terminal Help

[manish@rhel01 ~]$ sudo cat /var/log/diskuse.log
12.49:/dev/mapper/rhel_rhel01-root:/:5.9G:12G
12.50:/dev/mapper/rhel_rhel01-root:/:5.9G:12G
[manish@rhel01 ~]$
```

Return 2:

```
manish@rhel01:/var/log
File Edit View Search Terminal Help
#!/bin/bash

var=$(df -h | grep '/$')

device=$(echo $var | awk '{print $1}')
mountp=$(echo $var | awk '{print $6}')
uspace=$(echo $var | awk '{print $3}')
avspace=$(echo $var | awk '{print $4}')

echo "[$(date +%H.%M)]:[${device}]:[${mountp}]:[${uspace}]:[${avspace}]" \
    >> /var/log/diskuse.log 2>> /var/log/diskuse_errors.log

usage=$(echo $var | awk '{print $5}')
check=$(echo $usage | sed 's/%//')

if [ $check -ge 10 ]
then
    find / -xdev -type f -size +10M -exec ls -lah {} \; 2> /dev/null | sort -rn -k 5
    | head -10 >> /var/log/largefiles.log 2>> /var/log/largefiles_error.log
fi

~
~
~
~
~
~
~
~
~
~
"/usr/sbin/lab9.sh" 20L, 596C 18,51-58 All
```

Test for /var/log/largefiles.log

```
manish@rhel01:/var/log
File Edit View Search Terminal Help
[manish@rhel01 log]$ cat /var/log/largefiles.log
-rw-r--r--. 1 root root 162M Mar 27 16:40 /var/cache/PackageKit/8.5/metadata/rhel-8-for-x86_64-baseos-rpms-8-x86_64/packages/linux-firmware-20210702-104.gitd79c2677.el8_5.noarch.rpm
-rwxr-xr-x. 1 root root 138M Oct 4 2021 /usr/lib64/firefox/libxul.so
-rw-r--r--. 1 root root 112M Apr 16 17:31 /var/lib/rpm/Packages
-rw-r--r--. 1 root root 107M Mar 27 16:39 /var/cache/PackageKit/8.5/metadata/rhel-8-for-x86_64-appstream-rpms-8-x86_64/packages/firefox-91.7.0-3.el8_5.x86_64.rpm
-rwxr-xr-x. 1 root root 85M Sep 3 2021 /usr/lib64/libLLVM-12.so
-rwxr-xr-x. 1 root root 56M Sep 28 2021 /usr/lib64/libwebkit2gtk-4.0.so.37.53.4
-rw-r--r--. 1 root root 54M Jun 8 2018 /usr/share/GeoIP/GeoLite2-City.mmdb
-rwxr-xr-x. 1 root root 48M Sep 21 2021 /usr/bin/podman
-rw-r--r--. 1 root root 41M Oct 4 2021 /usr/lib64/firefox/browser/omni.ja
-rw-r--r--. 1 root root 38M Mar 27 16:40 /var/cache/PackageKit/8.5/metadata/rhel-8-for-x86_64-baseos-rpms-8-x86_64/packages/kernel-core-4.18.0-348.20.1.el8_5.x86_64.rpm
[manish@rhel01 log]$
```