

Ex. No.:02

Date: 01.03.2024

System Monitoring using Shell Script

Aim: To write a Shellscrip to to display system information.

Program Code:

```
#!/bin/bash
# Sample script written for Part 4 of the RHCE series
# This script will return the following set of system
information: # -Hostname information:
echo -e "\e[31;43m***** HOSTNAME INFORMATION
*****\e[0m"
hostnamectl
echo ""
# -File system disk space usage:
echo -e "\e[31;43m***** FILE SYSTEM DISK SPACE USAGE
*****\e[0m" df -h
echo ""
# -Free and used memory in the system:
echo -e "\e[31;43m ***** FREE AND USED MEMORY
*****\e[0m" free
echo ""
# -System uptime and load:
echo -e "\e[31;43m***** SYSTEM UPTIME AND LOAD
*****\e[0m"
uptime
echo ""

# -Logged-in users:
echo -e "\e[31;43m***** CURRENTLY LOGGED-IN USERS
*****\e[0m" who
echo ""
# -Top 5 processes as far as memory usage is concerned
echo -e "\e[31;43m***** TOP 5 MEMORY-CONSUMING
```

PROCESSES

```
*****\e[0m" ps -eo %mem,%cpu,comm --sort=-%mem | head -n
```

6

```
echo ""
```

```
echo -e "\e[1;32mDone.\e[0m"
```

Output: Hostname Information

Static hostname: n/a

Transient host: fedora

Icon name: Computer-desktop

Chassis: desktop

Machine ID: 7973908dF8614 ffabb

Boot ID: bec 914 79 1478460585625

Operating system: Federa Linux 86.

load

aurage: 0:09024

CPE OS Name: CPS: 10: federa projects: fedora: 36

Kernel: Linux Fedora Linux 36.

Architecture: x86-64

Hardware render: Lenovo

Hardware model: Desktop LM VSOE Gen 2

Result:

The above program executed successfully and output got verified.

Ex. No.: 3 b

Date: 09.03.2024

Aim:

RESULTS OF EXAMINATION

Program Code:

Student.dat

John 50 45 65 70

Jane 55 60 40 75

Doe 45 35 55 60

Smith 70 80 90 85

Alice 50 60 70 80

Bob 30 40 45 50

Ex3b.awk

```
{
    name = $1;
    subjects_failed = 0;

    for(i = 2; i <= NF; i++){
        if($i < 45){
            subjects_failed++;
        }
    }

    if(subjects_failed > 0) {
        print name, "Fail";
    }else{
        print name, "Pass";
    }
}
```

OUTPUT

```
(kali㉿kali)-[~/os/ex3b]  
$ awk -f ex3b.awk student.dat  
John Pass  
Jane Fail  
Doe Fail  
Smith Pass  
Alice Pass  
Bob Fail
```

Result:

The above program executed successfully and output got verified.