

## LINUX LAB

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1) SL:

code:

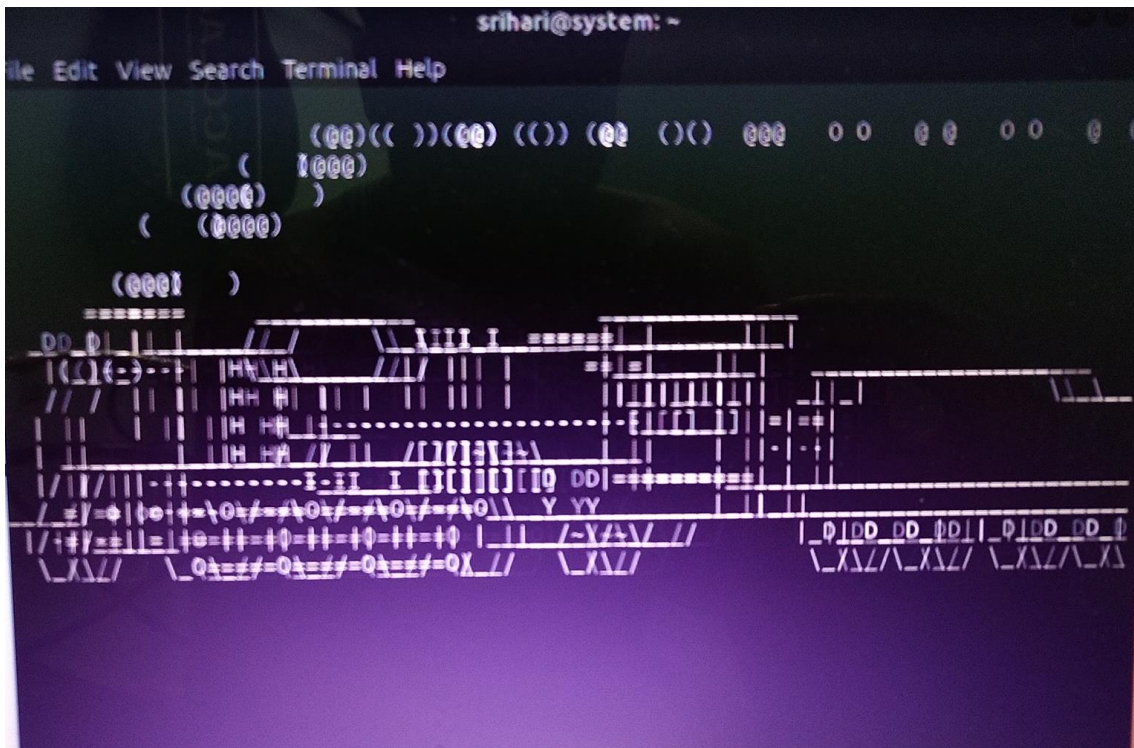
```
sudo apt-get install sl  
sl
```

EXPLANATION:

sl is just a fun command when you install the package and execute sl in terminal a train like structure will move in your terminal.

OUTPUT:

```
srihari@system:~$ sudo apt-get install sl  
Reading package lists... Done  
Building dependency tree  
Reading state information... Done  
The following NEW packages will be installed  
  sl  
0 to upgrade, 1 to newly install, 0 to remove and 281 not to upgrade.  
Need to get 26.4 kB of archives.  
After this operation, 98.3 kB of additional disk space will be used.  
Get:1 http://in.archive.ubuntu.com/ubuntu bionic/universe amd64 sl amd64 3.03-17  
build2 [26.4 kB]  
Fetched 26.4 kB in 0s (194 kB/s)  
Selecting previously unselected package sl.  
(Reading database ... 168394 files and directories currently installed.)  
Preparing to unpack .../sl_3.03-17build2_amd64.deb ...  
Unpacking sl (3.03-17build2) ...  
Setting up sl (3.03-17build2) ...  
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...  
srihari@system:~$ sl  
srihari@system:~$
```



## 2) SCRIPT1.SH

CODE:

```
rev
```

EXPLANATION:

the command “rev” is used to reverse the lines. Once it is executed it will prompt for you to enter any word and when you press enter the word will be reversed and displayed.

output:

```
srihari@system:~$ ./script1.sh
yes
sey
factor
rotcaf
^C
^Csrihari@system:~$
```

3) Write a bash script to monitor health of the system.

Health.sh:

```
vmstat 1200 > vmstat1.data
filename= "/home/srihari/vmstat1.data"
tail -f $filename |
while read $line do
if [ (cat vmstat1.data | grep "swap")>0 ]
then
echo "some rogue process has consumed massive amounts of memory"> swap.txt
fi
if [ (cat vmstat1.data | grep "r")>1 ]
then
echo "some process are waiting to execute"> runqueue.txt
fi
if [ (cat vmstat1.data | grep "cpu")>1000 ]
then
echo "cpu usage is more"> cpu.txt
fi
End
```

EXPLANATION:

the vmstat 1200 – monitors every 24 hours and puts the data into the vmstat1.data

grep “swap”- the swap should always be zero if its not then some process has consumed massive memory. That will be monitored in this line

grep “r”- the running queue is constantly above process 1 it indicates the system is slow and some process is waiting to be executed. That will be monitored here.

Grep “cpu”- it indicates the cpu usage of the system. If the cpu usage is more it will be monitored and will alert in this line.

OUTPUT:

```
srihari@srihari-VirtualBox: ~/Downloads
File Edit View Search Terminal Help
srihari@srihari-VirtualBox:~/Downloads$ chmod +x health.sh
srihari@srihari-VirtualBox:~/Downloads$ ./health.sh
^Csrihari@srihari-VirtualBox:~/Downloads$ ls
Documents          health.sh  Music      Public     Videos
examples.desktop  hey.sh    Pictures   Templates  vmstat1.data
srihari@srihari-VirtualBox:~/Downloads$ cat vmstat1.data
procs -----memory----- ---swap-- -----io----- -system-- -----cpu-----
 r  b   swpd   free   buff  cache   si   so    bi    bo    in   cs us sy id wa st
 0  0     0 1119048 53460 820000    0    0  2598   484  496 2309 51  9 18 23
0
srihari@srihari-VirtualBox:~/Downloads$
```

GITHUB LINK:

<https://github.com/sriharinirmala/linux-sl-rev-health-monitor>