SRIHARIHARASUDHAN .V
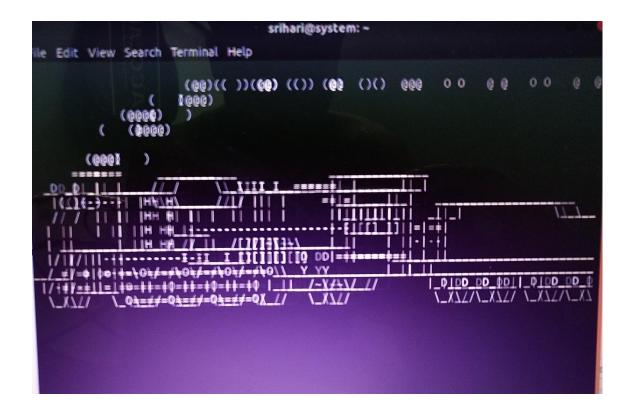17MIS1094

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:

3) "FACTOR":

The factor command displays the factor of the entered number

OUTPUT:

```
srihari@srihari-VirtualBox:~$ factor
42
42: 2 3 7
82
82: 2 41
290
290: 2 5 29
600
600: 2 2 2 3 5 5
^C
srihari@srihari-VirtualBox:~$ 
```

4)   "YES":

Yes command just displays y in terminal until you cancel it

OUTPUT:

```
y
y
y
y
y
y
y
y
y
y
y
y
^C
srihari@srihari-VirtualBox:~$ 
```

5)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:

GITHUB LINK: