

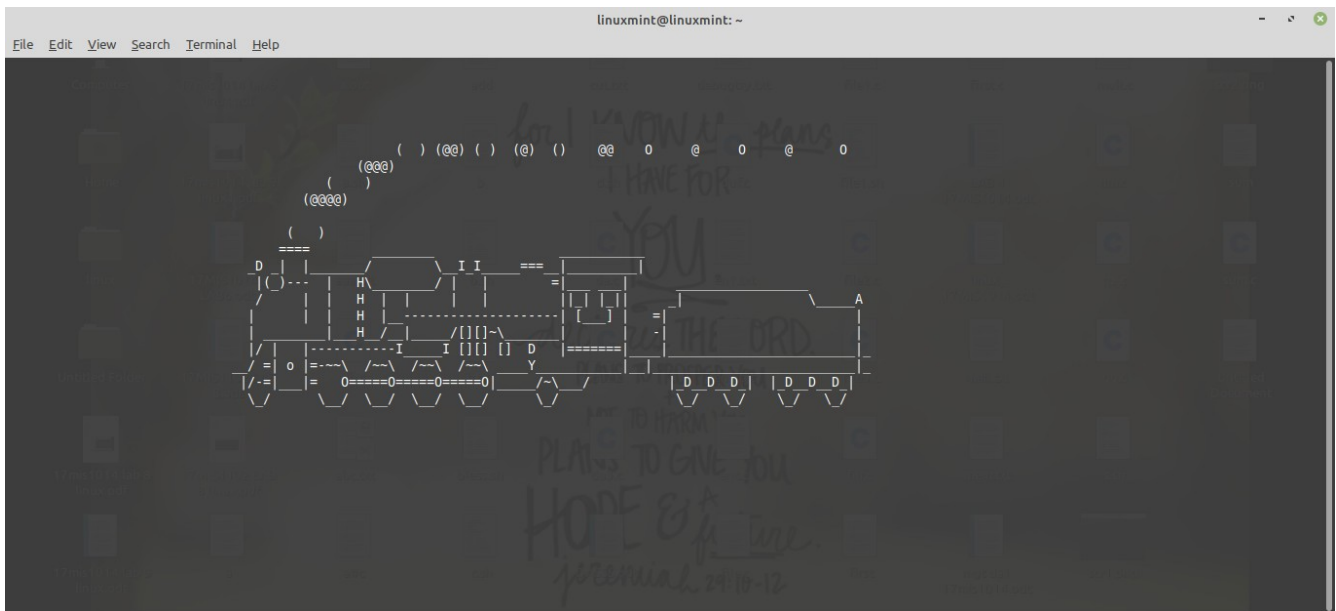
LINUX LAB

17MIS1014
BLESSY BOBAN

1)1) SL:

code:

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



```
File Edit View Search Terminal Help
upgrade      - Perform a safe upgrade
version      - Show the installed version of a package

linuxmint@linuxmint:~$ sl

Command 'sl' not found, but can be installed with:

sudo apt install sl

linuxmint@linuxmint:~$ sudo apt install sl
[sudo] password for linuxmint:
Reading package lists... Done
Building dependency tree
Reading state information... Done
The following NEW packages will be installed:
  sl
0 upgraded, 1 newly installed, 0 to remove and 0 not upgraded.
Need to get 26.4 kB of archives.
After this operation, 98.3 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu bionic/universe amd64 sl amd64 3.03-17build2 [26.4 kB]
Fetched 26.4 kB in 1s (18.5 kB/s)
Selecting previously unselected package sl.
(Reading database ... 253871 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) ...
linuxmint@linuxmint:~$ sl
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linuxmint@linuxmint:~$ sl
linuxmint@linuxmint:~$
```

EXPLANATION:

Install the package `sl` and execute `.`. Then a moving train structure will appear.

2)

2) SCRIPT1.SH

CODE:

rev

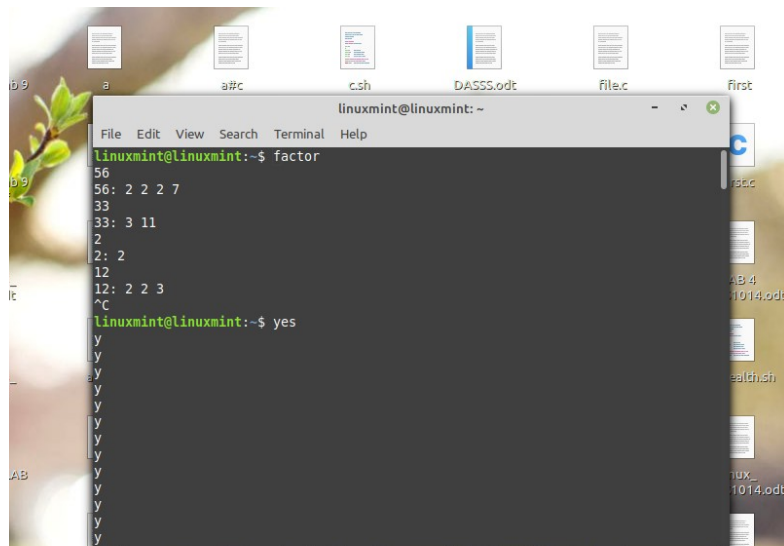
factor

yes.

```
File Edit View Search Terminal Help
Need to get 26.4 kB of archives.
After this operation, 98.3 kB of additional disk space will be used.
Get:1 http://archive.ubuntu.com/ubuntu bionic/universe amd64 sl amd64 3.03-17build2 [26.4 kB]
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Setting up sl (3.03-17build2) ...
Processing triggers for man-db (2.8.3-2ubuntu0.1) ...
linuxmint@linuxmint:~$ sl

linuxmint@linuxmint:~$ sl
linuxmint@linuxmint:~$ sl
linuxmint@linuxmint:~$ sl
linuxmint@linuxmint:~$ rev
factor
rotcaf
yes
sey
no
on
blessy
ysselb
so what
tahw os
hahahah
hahahah
kohikode
edokihok
kerala
alarek

```

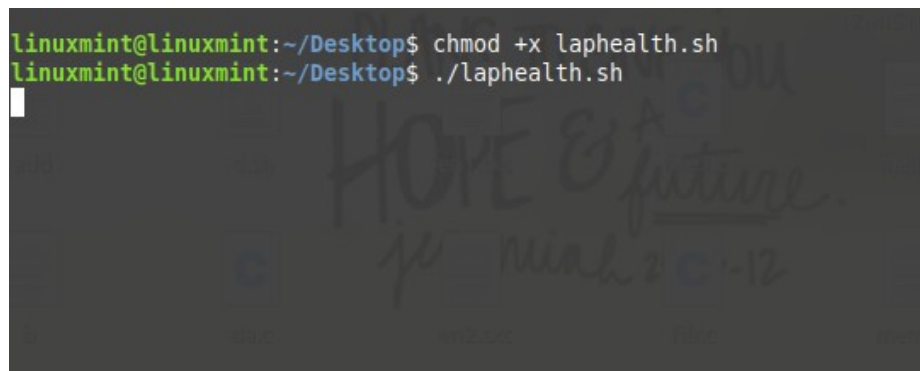
A screenshot of a Linux terminal window titled 'linuxmint@linuxmint: ~'. The terminal shows the execution of the 'factor' command, which outputs the prime factors of 56 (2 2 2 7) and 33 (3 11). Below this, the 'yes' command is executed, resulting in a continuous stream of 'y' characters. The terminal window is overlaid on a desktop background featuring a blurred image of a plant and several document icons.

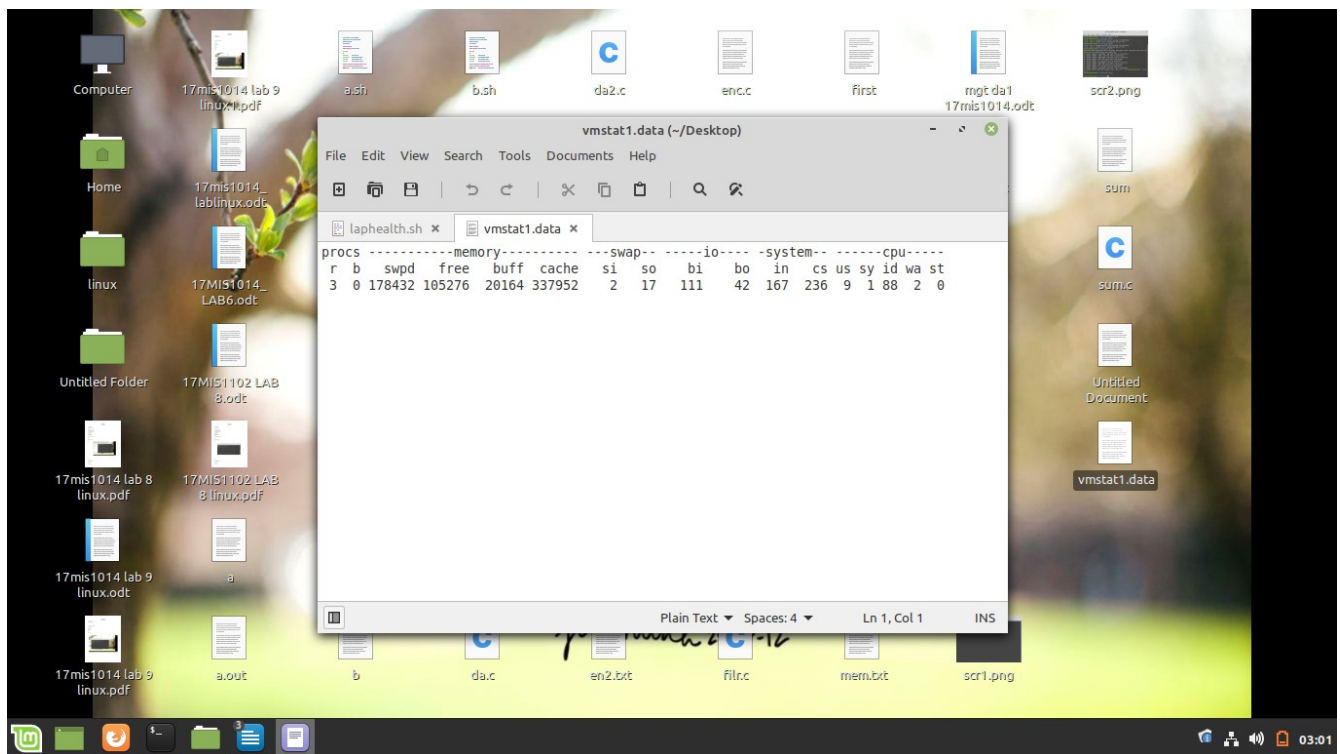
EXPLANATION:

rev commands reverse the input string. whatever we type it will reverse and gives the output. And factor will give you the factor and yes command prints the y in a continuous loop.

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

```
vmstat 1200 > vmstat1.data
filename="/home/linuxmint/Desktop"
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
```

A screenshot of a Linux terminal window showing the execution of a bash script. The prompt is 'linuxmint@linuxmint:~/Desktop\$'. The user enters 'chmod +x laphealth.sh' and then './laphealth.sh'. The terminal output shows the script's execution. The background of the terminal window features a dark, textured image with the text 'HOPE & future' and 'is real' written in a stylized font.



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.

