Linux Programming

Lab-9

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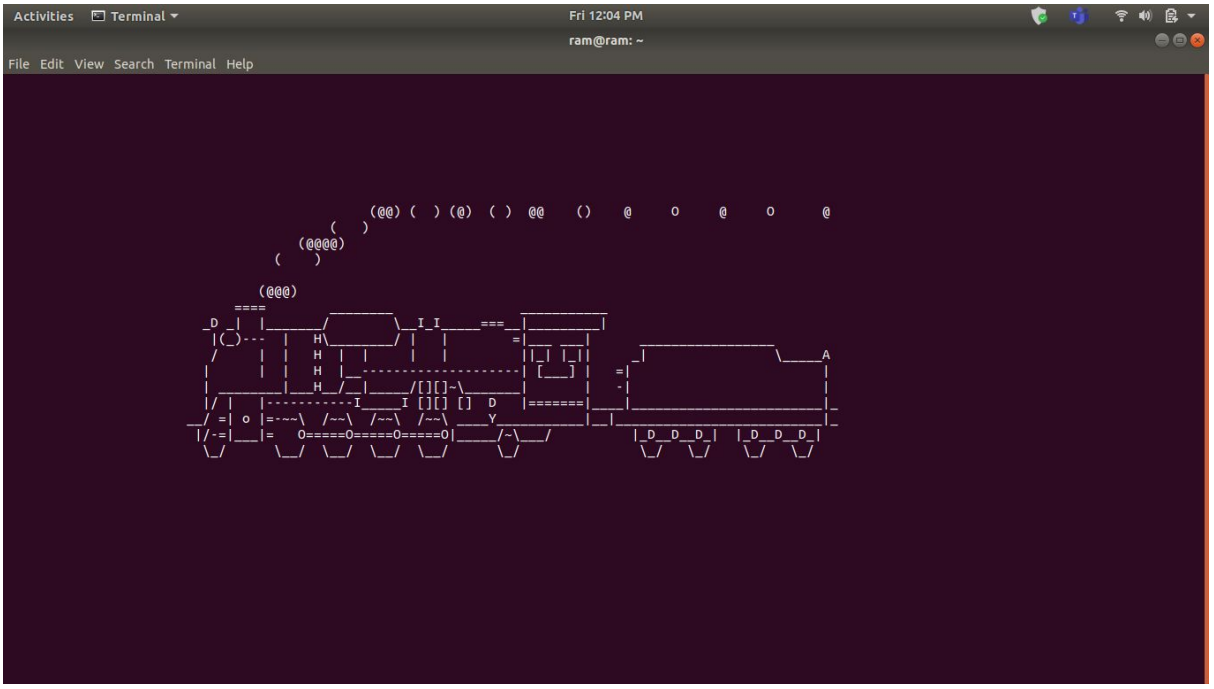
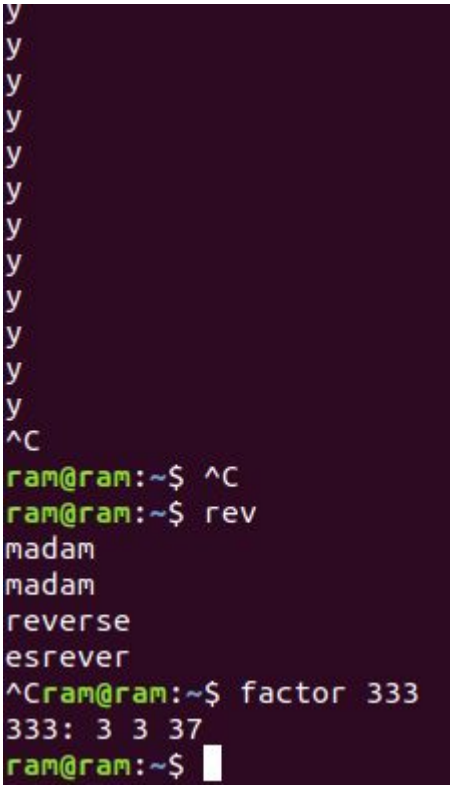
1.Script -1
Command: sudo apt-get install sl
sl
Output:



2. Script-2
Commands:
rev
factor
yes
Note: The ‘rev’ command is used to reverse a string and the ‘factor’ command is used to get the prime factors of the input number.

Output:



2. Write a bash shell script to monitor the health of your system. Let the details be stored and archived in any folder of your choice.

CODE:

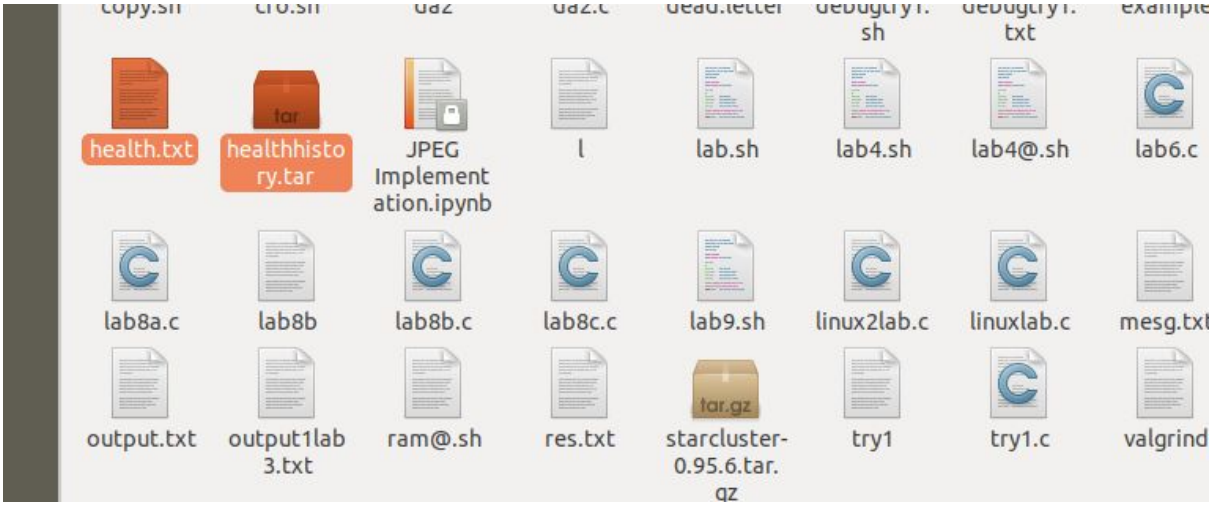
top -b -n1>health.txt
tar -cvf 'healthhistory.tar' 'health.txt'

CRONTAB SPECIFICATION:

```
ram@ram: ~
File  Edit  View  Search  Terminal  Help
  GNU nano 2.9.3                          /tmp/crontab.I7l2sU/crontab

* * * * * /home/ram/lab9.sh
# Edit this file to introduce tasks to be run by cron.
#
# Each task to run has to be defined through a single line
# indicating with different fields when the task will be run
# and what command to run for the task
#
# To define the time you can provide concrete values for
# minute (m), hour (h), day of month (dom), month (mon),
# and day of week (dow) or use '*' in these fields (for 'any').#
# Notice that tasks will be started based on the cron's system
# daemon's notion of time and timezones.
#
# Output of the crontab jobs (including errors) is sent through
# email to the user the crontab file belongs to (unless redirected).
#
# For example, you can run a backup of all your user accounts
# at 5 a.m every week with:
# 0 5 * * 1 tar -zcf /var/backups/home.tgz /home/
#
# For more information see the manual pages of crontab(5) and cron(8)
#
# m h  dom mon dow   command
```

Output:



health.txt:

lab9.sh × health.txt

```
op - 12:38:05 up 48 min,  1 user,  load average: 0.87, 1.01, 1.06
asks: 313 total,   1 running, 257 sleeping,   1 stopped,   0 zombie
Cpu(s): 12.0 us,  3.1 sy,  0.1 ni, 80.4 id,  3.8 wa,  0.0 hi,  0.6 si,  0.0 st
iB Mem :  8041484 total,  1729552 free,  3338848 used,  2973084 buff/cache
iB Swap:  2097148 total,  2097148 free,        0 used.  3651144 avail Mem

  PID USER      PR  NI    VIRT    RES    SHR S  %CPU %MEM     TIME+ COMMAND
 8773 ram       20   0   51312   4128   3412 R  15.8  0.1   0:00.06 top
 2851 ram       20   0 1157676  85892  56168 S  10.5  1.1   2:33.90 Xorg
 3343 ram       20   0 3240068 174632  88500 S   5.3  2.2   2:09.91 teams
 3651 ram       20   0 2594548 465708  76724 S   5.3  5.8   1:43.34 teams
 6291 ram       20   0 1475164  95772  39000 S   5.3  1.2   0:37.20 nautilus
    1 root      20   0  225700   9476   6760 S   0.0  0.1   0:05.11 systemd
    2 root      20   0       0      0      0 S   0.0  0.0   0:00.00 kthreadd
    3 root       0 -20       0      0      0 I   0.0  0.0   0:00.00 rcu_gp
    4 root       0 -20       0      0      0 I   0.0  0.0   0:00.00 rcu_par_gp
    6 root       0 -20       0      0      0 I   0.0  0.0   0:00.00 kworker/0:0H-kb
    8 root      20   0       0      0      0 I   0.0  0.0   0:02.98 kworker/u8:0-ev
    9 root       0 -20       0      0      0 I   0.0  0.0   0:00.00 mm_percpu_wq
   10 root      20   0       0      0      0 S   0.0  0.0   0:00.10 ksoftirqd/0
   11 root      20   0       0      0      0 I   0.0  0.0   0:03.09 rcu_sched
   12 root      rt   0       0      0      0 S   0.0  0.0   0:00.01 migration/0
   13 root     -51   0       0      0      0 S   0.0  0.0   0:00.00 idle_inject/0
   14 root      20   0       0      0      0 S   0.0  0.0   0:00.00 cpuhp/0
   15 root      20   0       0      0      0 S   0.0  0.0   0:00.00 cpuhp/1
   16 root     -51   0       0      0      0 S   0.0  0.0   0:00.00 idle_inject/1
   17 root      rt   0       0      0      0 S   0.0  0.0   0:00.14 migration/1
   18 root      20   0       0      0      0 S   0.0  0.0   0:00.12 ksoftirqd/1
   20 root       0 -20       0      0      0 I   0.0  0.0   0:00.00 kworker/1:0H-kb
   21 root      20   0       0      0      0 S   0.0  0.0   0:00.00 cpuhp/2
   22 root     -51   0       0      0      0 S   0.0  0.0   0:00.00 idle_inject/2
   23 root      rt   0       0      0      0 S   0.0  0.0   0:00.14 migration/2
   24 root      20   0       0      0      0 S   0.0  0.0   0:00.11 ksoftirqd/2
   26 root       0 -20       0      0      0 I   0.0  0.0   0:00.00 kworker/2:0H-kb
   27 root      20   0       0      0      0 S   0.0  0.0   0:00.00 cpuhp/3
```