

(<https://profile.intra.42.fr/searches>)

SCALE FOR PROJECT INIT (/PROJECTS/INIT)

You should correct 1 student in this team



Git repository

Introduction

Please respect the following rules:

- Remain polite, courteous, respectful and constructivethroughout the evaluation process. The well-being of the community depends on it.
- Identify with the person (or the group) graded the eventualdysfunctions of the work. Take the time to discuss and debate the problems you have identified.
- You must consider that there might be some difference in how yourpeers might have understood the project's instructions and the scope of its functionalities. Always keep an open mind and grade him/her as honestly as possible. The pedagogy is valid only if the peer-evaluation is conducted seriously.

Guidelines

- Only grade the work that is in the student or group'sGiT repository.
- Double-check that the GiT repository belongs to the studentor the group. Ensure that the work is for the relevant project and also check that "git clone" is used in an empty folder.
- Check carefully that no malicious aliases was used to fool youand make you evaluate something other than the content of the official repository.

evaluator and the evaluated students have reviewed the possible scripts used to facilitate the grading.

- If the evaluated student has not completed that particular project yet, it is mandatory for this student to read the entire subject prior to starting the defence.
 - Use the flags available on this scale to signal an empty repository, non-functioning program, a norm error, cheating etc. In these cases, the grading is over and the final grade is 0 (or -42 in case of cheating). However, with the exception of cheating, you are encouraged to continue to discuss your work (even if you have not finished it) in order to identify any issues that may have caused this failure and avoid repeating the same mistake in the future.
-

Attachments

- ☐ Subject (<https://cdn.intra.42.fr/pdf/pdf/1281/init.en.pdf>)
- ☐ Sujet (<https://cdn.intra.42.fr/pdf/pdf/750/init.fr.pdf>)

Follow Slash16 around the world

You have to follow us in the whole world

The student has followed Slash16 on LinkedIn, Facebook and Twitter The

student has followed Slash16 on LinkedIn, Facebook and Twitter

☐ Yes

☐ No

Part 2 - Network

Evaluation of Part 2 - Network

Get the list of the network interfaces of the machine without displaying any detail Check that the answer file contains the command which lists the names of the interfaces of the machine and no other information. For instance:

```
lo0 gif0 stf0 en0 en1 en2 en3 p2p0 awdl0 bridge0
```

```
$>
```

☐ Yes

☐ No

Identify the IP address of the Ethernet interface

Check that the answer file contains the command which identifies and displays the specifications of the Ethernet interface. For instance:

```
$>`cat 02` en0:  
flags=XXXX mtu 1500  
options=10b ether  
00:00:00:00:00:00  
inet 42.42.42.42 netmask 0xfffff00 broadcast 42.42.42.255  
nd6 options=1  
media: autoselect (1000baseT )  
status: active  
$>
```

☐ Yes

☐ No

Identify the MAC address of the Wi-Fi card

Check that the answer file contains the command which identifies and displays the MAC address of the wi-fi board. For instance:

```
$>`cat 03` xxn:  
flags=XXXX  
ether 00:00:00:00:00:00  
$>
```

☐ Yes

☐ No

Identify the default gateway in the routing table

Check that the answer file contains the command which identifies and displays the default gateway in the routing table. For instance:

```
$>sh 04  
default 42.42.42.42 UGSc 19 16 en0
```

☐ Yes

☐ No

Identify the IP address of the DNS server which answers to slash16.org

Check that the answer file contains the command which identifies and displays the IP address of the DNS server. For instance:

```
$>`cat 05`  
Server:10.51.1.42  
Address:10.51.1.42
```

Non-authoritative answer:

```
Name:slash16.org  
Address: 195.154.52.157  
Name:slash16.org  
Address: 195.154.52.158  
$>
```

☐ Yes

☐ No

Get the complete path of the file that contains the IP address of the DNS server you're using

Check that the answer file contains the complete path of the file in which the IP address of the used DNS server is written.

```
$>cat 05  
/etc/resolv.conf  
$>
```

☐ Yes

☐ No

Query an external DNS server on the same domain name (ex, google 8.8.8.8)

Check that the answer file contains the command which use another DNS server to solve the same domain name. For instance:

```
$>`cat 07`  
Server:8.8.8.8  
Address:8.8.8.8
```

Name:slash16.org

Address: 195.154.52.157

Name:slash16.org

Address: 195.154.52.158

\$>

☐ Yes

☐ No

Find the provider of slash16.org

Check that student's answer in the file is AWS (Amazon Web Services).

☐ Yes

☐ No

Find the external IP of 42.fr

Check that student's answer in the file is 163.172.250.12 and/or 163.172.250.11.

☐ Yes

☐ No

Identify the network devices between your computer and the slash16.org domain

Check that the answer file contains the command which identifies and displays the different network devices between your computer and slash16.org. For instance:

\$>`cat 10`

tracert to slash16.org (195.154.52.158), 64 hops max, 52 byte packets

1 10.8.0.1 (10.8.0.1) 5.809 ms 6.087 ms 3.124 ms

2 10.42.1.254 (10.42.1.254) 6.005 ms 13.668 ms 7.037 ms

3 nat-1.42.fr (10.60.1.11) 7.530 ms 3.379 ms 9.966 ms

4 dc3.42.fr (62.210.35.1) 7.100 ms 7.587 ms 5.160 ms

5 195.154.1.174 (195.154.1.174) 57.350 ms 168.093 ms 8.906 ms

6 a9k2-45x-s44-2.dc3.poneytelecom.eu (195.154.1.106) 6.590 ms 3.910 ms 5.525 ms

7 195.154.1.179 (195.154.1.179) 4.077 ms 46.904 ms 3.883 ms

8 pub-1.slash16.org (195.154.52.158) 5.699 ms 6.034 ms 7.632 ms

\$>

☐ Yes

☐ No

link between you (local network) and the outside world.

Check that student's answer in the file is the NAT server.

☐ Yes

☐ No

Check that the server with the 10.51.1.253 IP address is reachable from your computer.

Check that the answer file contains the command which displays if the IP address is reachable or not. For instance:

```
$>`cat 12`  
64 bytes from 10.51.1.253: icmp_seq=0 ttl=62 time=40.663 ms  
64 bytes from 10.51.1.253: icmp_seq=1 ttl=62 time=5.024 ms  
$>
```

☐ Yes

☐ No

Figure out the server type.

Check that student's answer in the file is DHCP.

☐ Yes

☐ No

Use the Reverse DNS to find out the name of the server linked to the 10.51.1.81 IP address Check that

student's answer in the file is ldap-proxy.42.fr

☐ Yes

☐ No

What file contains the local DNS entries?

Check that student's answer in the file is /etc/hosts.

☐ Yes

☐ No

Make the 46.19.122.85 address reroute to intra.42.fr

Check that student's answer in the file is '46.19.122.85 intra.42.fr'.

☐ Yes

☐ No

Part 3 - System

Evaluation of Part 3 - System

In what file can you find the installed version of your Debian?

Check that student's answer in the file is /etc/debian_version.

☐ Yes

☐ No

What command can you use to rename your system?

Check that the answer file contains the command which rename the system. For instance:

```
$>`cat 02`  
machine.old.name.local  
$>
```

☐ Yes

☐ No

What file has to be modified to make it permanent?

Check that student's answer in the file is /etc/hostname.

☐ Yes

☐ No

What command gives your system was last booted?

gives the time since the last boot of the system. For instance:

```
$>`cat 04`  
17:44 up 1 day, 6:45, 4 users, load averages: 1.33 1.42 1.40  
$>
```

☐ Yes

☐ No

Name the command that determines the state of the SSH service?

Check that the answer file contains the command which determines the state of the SSH service. For instance with init.d :

```
$>`cat 05` openssh-daemon (pid 22405)  
is running... $>
```

Or with service:

```
$>`cat 05`  
! ssh.service - OpenBSD Secure Shell server  
Loaded: loaded (/lib/systemd/system/ssh.service; enabled)  
Active: active (running) since Fri 2016-12-02 18:42:05 CET; 1 months 0 days ago  
Main PID: 13106 (sshd)  
CGroup: /system.slice/ssh.service  
└─ 2461 ssh-agent -s  
└─13106 /usr/sbin/sshd -D  
└─27517 sshd: skyline [priv]  
└─27519 sshd: skyline@pts/0  
└─27520 -zsh  
└─27561 sudo su  
└─27562 su  
└─27563 zsh  
└─27589 systemctl status sshd.service  
$>
```

☐ Yes

☐ No

Name the command that reboots it.

reboot the SSH service. For instance with init.d:

```
$>`cat 06`  
Stopping sshd: [ OK ]  
Starting sshd: [ OK ]  
$>
```

Or with service:

```
$>`cat 06`  
$> service sshd status  
! ssh.service - OpenBSD Secure Shell server  
Loaded: loaded (/lib/systemd/system/ssh.service; enabled)  
Active: active (running) since Fri 2016-12-02 18:42:05 CET; 10s ago  
Main PID: 13106 (sshd)  
CGroup: /system.slice/ssh.service  
├─2461 ssh-agent -s  
├─13106 /usr/sbin/sshd -D  
├─27517 sshd: skyline [priv]  
├─27519 sshd: skyline@pts/0  
├─27520 -zsh  
├─27561 sudo su  
├─27562 su  
├─27563 zsh  
└─27589 systemctl status sshd.service  
$>
```

The displayed time in Active has to be in seconds because of the reboot of sshd.

☐ Yes

☐ No

Figure out the PID of the SSHD service

Check that the answer file contains the command which figure out the PID of the ssh service. For instance: `$>`cat 07``

```
root 22405 0.0 0.0 66224 1184 ? Ss 17:46 0:00  
/usr/sbin/sshd  
$>
```

☐ Yes

☐ No

What file contains the RSA keys authorized to connect via SSH? Check

that student's answer in the file is .ssh/authorized_keys

☐ Yes

☐ No

What command lets you know who is connected to the System?

Check that the answer file contains the command
which lets you know who is connected to the system.
For instance:

```
$>`cat 09` skyline console  
Mar 23 10:59  
skyline ttys000 Mar 24 17:04  
$>
```

☐ Yes

☐ No

Name the command that lists the partition tables of external devices?

Check that the answer file contains the command
which lists the partition tables of external devices. For
instance:

```
$>`cat 10`  
Disk /dev/sdb: 2000.4 GB, 2000398934016 bytes  
255 heads, 63 sectors/track, 243201 cylinders  
Units = cylinders of 16065 * 512 = 8225280 bytes  
Sector size (logical/physical): 512 bytes / 512 bytes  
I/O size (minimum/optimal): 512 bytes / 512 bytes  
Disk identifier: 0x00000000  
$>
```

☐ Yes

☐ No

Name the command that displays the available space left on the system?

displays the available space left. For instance:

```
$>`cat 11`
```

```
Filesystem Size Used Avail Use% Mounted on
/dev/xvda2 7.8G 1.2G 6.3G 16% / udev
10M 0 10M 0% /dev tmpfs 200M 4.2M 196M 3% /run tmpfs 500M 0 500M 0% /dev/shm tmpfs 5.0M 0 5.0M 0% /run/lock tmpfs 500M 0 500M 0% /sys/fs/cgroup
$>
```

☐ Yes

☐ No

Figure out the exact size of each folder of /var

Check that the answer file contains the command which displays the exact size of each folders of /var.
For instance:

```
$>`cat 12`
```

```
4.0K /var/opt
864K /var/spool
1.3M /var/log
111M /var/lib
124M /var/cache
4.0K /var/local
8.0K /var/mail
1.1M /var/backups
4.0K /var/tmp
238M /var
$>
```

☐ Yes

☐ No

Name the command that find currently running processes

Check that the answer file contains the command which displays running processes in real time.
For instance:

```
$>`cat 13`
```

```
Tasks: 58 total, 1 running, 57 sleeping, 0 stopped, 0 zombie
```

KiB Mem: 1022952 total, 359176 used, 663776 free, 168200 buffers

KiB Swap: 0 total, 0 used, 0 free. 86924 cached Mem

```
PID USER PR NI VIRT RES SHR S %CPU %MEM TIME+ COMMAND
```

```
1 root 20 0 28740 4760 3064 S 0.0 0.5 0:03.28 systemd
```

```
2 root 20 0 0 0 0 S 0.0 0.0 0:00.00 kthreadd
```

```
3 root 20 0 0 0 0 S 0.0 0.0 0:00.02 ksoftirqd/0
```

```
5 root 0 -20 0 0 0 S 0.0 0.0 0:00.00 kworker/0:0H
```

```
$>
```

☐ Yes

☐ No

Run the `tail -f /var/log/syslog` command in background

Check that the answer file contains the command which runs the command `tail -f /var/log/syslog` in background

For instance:

```
$>`cat 14`
```

```
[1] 2660
```

```
Mar 25 06:25:03 rsyslogd: [origin software="rsyslogd" swVersion="8.4.2" x-pid="330" xinfo="http://www.rsyslog.com"] rsyslogd was HUPed
```

```
Mar 25 07:17:01 CRON[2601]: (root) CMD ( cd / && run-parts --report /etc/cron.hourly)
```

```
Mar 25 08:17:01 CRON[2656]: (root) CMD ( cd / && run-parts --report /etc/cron.hourly)
```

```
$>
```

☐ Yes

☐ No

Find the command that kills the background command's process

Check that the answer file contains the command which kills the process of the `tail -f /var/log/syslog` command. For instance:

```
$>`cat 15`
```

```
[1]+ Terminated tail -f /var/log/syslog
```

```
$>
```

☐ Yes

☐ No

student's answer in the file is cron.

☐ Yes

☐ No

Find the command which gives the list of firewall rules

Check that the answer file contains the command which gives the list of firewall rules. For instance:

```
$>`cat 17`
```

```
Chain INPUT (policy ACCEPT)
```

```
target prot opt source destination
```

```
Chain FORWARD (policy ACCEPT)
```

```
target prot opt source destination
```

```
Chain OUTPUT (policy ACCEPT)
```

```
target prot opt source destination
```

```
$>
```

☐ Yes

☐ No

With the previous command, authorize only IP addresses from 10.0.0.0/8 to connect to your system

Check that the answer file contains the command which authorize only IP addresses from 10.0.0.0/8 to connect to your system. For instance:

```
$>`cat 18`
```

```
$>
```

```
$> iptables -L
```

```
Chain INPUT (policy ACCEPT)
```

```
target prot opt source destination
```

```
ACCEPT all -- 10.0.0.0/8 anywhere
```

```
Chain FORWARD (policy ACCEPT)
```

```
target prot opt source destination
```

target prot opt source destination

\$>

☐ Yes

☐ No

With the previous command, forbid all others

Check that the answer file contains the command which forbids all others to connect to your system.
For instance:

```
$>`cat 19`
```

```
$>
```

```
$> iptables -L
```

```
Chain INPUT (policy DROP) target
prot opt source destination
ACCEPT all -- 10.0.0.0/8 anywhere
```

```
Chain FORWARD (policy ACCEPT)
target prot opt source destination
```

```
Chain OUTPUT (policy ACCEPT)
target prot opt source destination
$>
```

☐ Yes

☐ No

Part 3 - Scripting

Evaluation of the part 3 - Scripting

Write a script which displays only the login, UID and Path of each entry of the /etc/passwd file

Check that the script displays only the login, UID and Path of each entry of the /etc/passwd file.
For instance:

```
$>sh 1
```

```
root:0:/bin/bash
```

```
daemon:1:/usr/sbin/nologin
```

```
sys:3:/usr/sbin/nologin sync:4:/bin/sync
games:5:/usr/sbin/nologin
man:6:/usr/sbin/nologin
lp:7:/usr/sbin/nologin
mail:8:/usr/sbin/nologin
news:9:/usr/sbin/nologin
uucp:10:/usr/sbin/nologin
proxy:13:/usr/sbin/nologin www-
data:33:/usr/sbin/nologin
backup:34:/usr/sbin/nologin
list:38:/usr/sbin/nologin
irc:39:/usr/sbin/nologin
gnats:41:/usr/sbin/nologin
nobody:65534:/usr/sbin/nologin
systemd-timesync:100:/bin/false
systemd-network:101:/bin/false
systemd-resolve:102:/bin/false
systemd-bus-proxy:103:/bin/false
sshd:104:/usr/sbin/nologin Debian-
exim:105:/bin/false
postfix:106:/bin/false
skyline:1000:/bin/bash
$>
```

☐ Yes

☐ No

Write a script which updates all the package sources, then all packages and then logs everything in a file named `/var/log/update_script.log`. Create a scheduled task for this script, once per week at 4 AM.

Check that the script updates all the package sources and logs everything in the good file and check if it is cron. For instance:

```
$>sh script/2
$>cat /var/log/update_script.log
Hit http://cloudfront.debian.net jessie-backports InRelease
Hit http://security.debian.org jessie/updates InRelease
Hit http://security.debian.org jessie/updates/main Sources
Hit http://security.debian.org jessie/updates/contrib Sources
Hit http://security.debian.org jessie/updates/non-free Sources
Hit http://security.debian.org jessie/updates/main amd64 Packages
Hit http://security.debian.org jessie/updates/contrib amd64 Packages
Hit http://security.debian.org jessie/updates/non-free amd64 Packages
Hit http://security.debian.org jessie/updates/contrib Translation-en
```

Hit http://security.debian.org jessie/updates/main Translation-en
Get:1 http://httpredir.debian.org jessie-updates InRelease [142 kB]
Hit http://security.debian.org jessie/updates/non-free Translation-en
Get:2 http://cloudfront.debian.net jessie-backports/main Sources/DiffIndex [27.8 kB]
Get:3 http://httpredir.debian.org jessie Release.gpg [2,373 B]
Get:4 http://cloudfront.debian.net jessie-backports/main amd64 Packages/DiffIndex [27.8 kB]
Get:5 http://cloudfront.debian.net jessie-backports/main Translation-en/DiffIndex [27.8 kB]
Hit http://httpredir.debian.org jessie-updates/main Sources
Hit http://httpredir.debian.org jessie-updates/contrib Sources
Hit http://httpredir.debian.org jessie-updates/non-free Sources
Get:6 http://httpredir.debian.org jessie-updates/main amd64 Packages/DiffIndex [1,012 B]
Hit http://httpredir.debian.org jessie-updates/contrib amd64 Packages
Get:7 http://httpredir.debian.org jessie-updates/non-free amd64 Packages/DiffIndex [736 B]
Get:8 http://httpredir.debian.org jessie-updates/contrib Translation-en [14 B]
Get:9 http://httpredir.debian.org jessie-updates/main Translation-en/DiffIndex [736 B]
Get:10 http://httpredir.debian.org jessie-updates/non-free Translation-en/DiffIndex [736 B]
Get:11 http://httpredir.debian.org jessie Release [148 kB]
Hit http://httpredir.debian.org jessie/main Sources
Hit http://httpredir.debian.org jessie/contrib Sources
Hit http://httpredir.debian.org jessie/non-free Sources
Hit http://httpredir.debian.org jessie/main amd64 Packages
Hit http://httpredir.debian.org jessie/contrib amd64 Packages
Hit http://httpredir.debian.org jessie/non-free amd64 Packages
Get:12 http://httpredir.debian.org jessie/contrib Translation-en [38.5 kB]
Get:13 http://httpredir.debian.org jessie/main Translation-en [4,582 kB]
Get:14 http://httpredir.debian.org jessie/non-free Translation-en [72.5
kB] Fetched 5,073 kB in 4s (1,143 kB/s) Reading package lists...
Reading package lists...
Building dependency tree...
Reading state information...
The following packages will be upgraded:
git git-man
2 upgraded, 0 newly installed, 0 to remove and 0 not upgraded.
Need to get 4,530 kB of archives.
After this operation, 30.7 kB of additional disk space will be used.
Get:1 http://security.debian.org/ jessie/updates/main git-man all 1:2.1.4-2.1+deb8u2 [1,267 kB]
Get:2 http://security.debian.org/ jessie/updates/main git amd64 1:2.1.4-2.1+deb8u2 [3,262 kB]
Fetched 4,530 kB in 0s (14.5 MB/s)
(Reading database ... 41091 files and directories currently installed.)
Preparing to unpack .../git-man_1%3a2.1.4-2.1+deb8u2_all.deb ...
Unpacking git-man (1:2.1.4-2.1+deb8u2) over (1:2.1.4-2.1+deb8u1) ...
Preparing to unpack .../git_1%3a2.1.4-2.1+deb8u2_amd64.deb ...
Unpacking git (1:2.1.4-2.1+deb8u2) over (1:2.1.4-2.1+deb8u1) ...
Processing triggers for man-db (2.7.0.2-5) ...

Setting up git (1:2.1.4-2.1+deb8u2) ...

\$>

Pour vérifier que ce script est en cron :

\$>crontab -l

00 4 * * 1 /bin/sh /usr/local/bin/01.sh

\$>

☐ Yes

☐ No

Write a script which displays the list of files from the folder given as parameter, sorted by size.

Check that the script displays the list of files in the folder given as parameter, sorted by size. For instance:

\$>sh script/3 /var

248736 /var

131080 /var/cache

125012 /var/cache/apt

113992 /var/lib

97572 /var/lib/apt

97544 /var/lib/apt/lists

75024 /var/cache/apt/archives

33016 /var/cache/apt/archives/linux-image-3.16.0-4-amd64_3.16.7-ckt20-1+deb8u4_amd64.deb

33012 /var/lib/apt/lists/httpredir.debian.org_debian_dists_jessie_main_binary-amd64_Packages 31764

/var/lib/apt/lists/httpredir.debian.org_debian_dists_jessie_main_source_Sources \$>

☐ Yes

☐ No

Make a script which monitors the modifications of the /etc/crontab file and sends an e-mail to root if the file is modified. Create a scheduled task to run this script everyday at midnight.

Check that the script monitors the modifications of the /etc/crontab file and sends an e-mail to root ONLY if the file is modified. So you should receive an email showing the changes on the file, either in local with the mail command or in your own mailbox.

Further, you have to check the crontab:

\$>crontab -l

\$>

☐ Yes

☐ No

Make a script which displays 42.

42 Obviously ;)

☐ Yes

☐ No

Ratings

Don't forget to check the flag corresponding to the defense

☐ Ok

☐ Empty work

☐ Incomplete work

☐ Cheat

Conclusion

Leave a comment on this evaluation

Finish evaluation