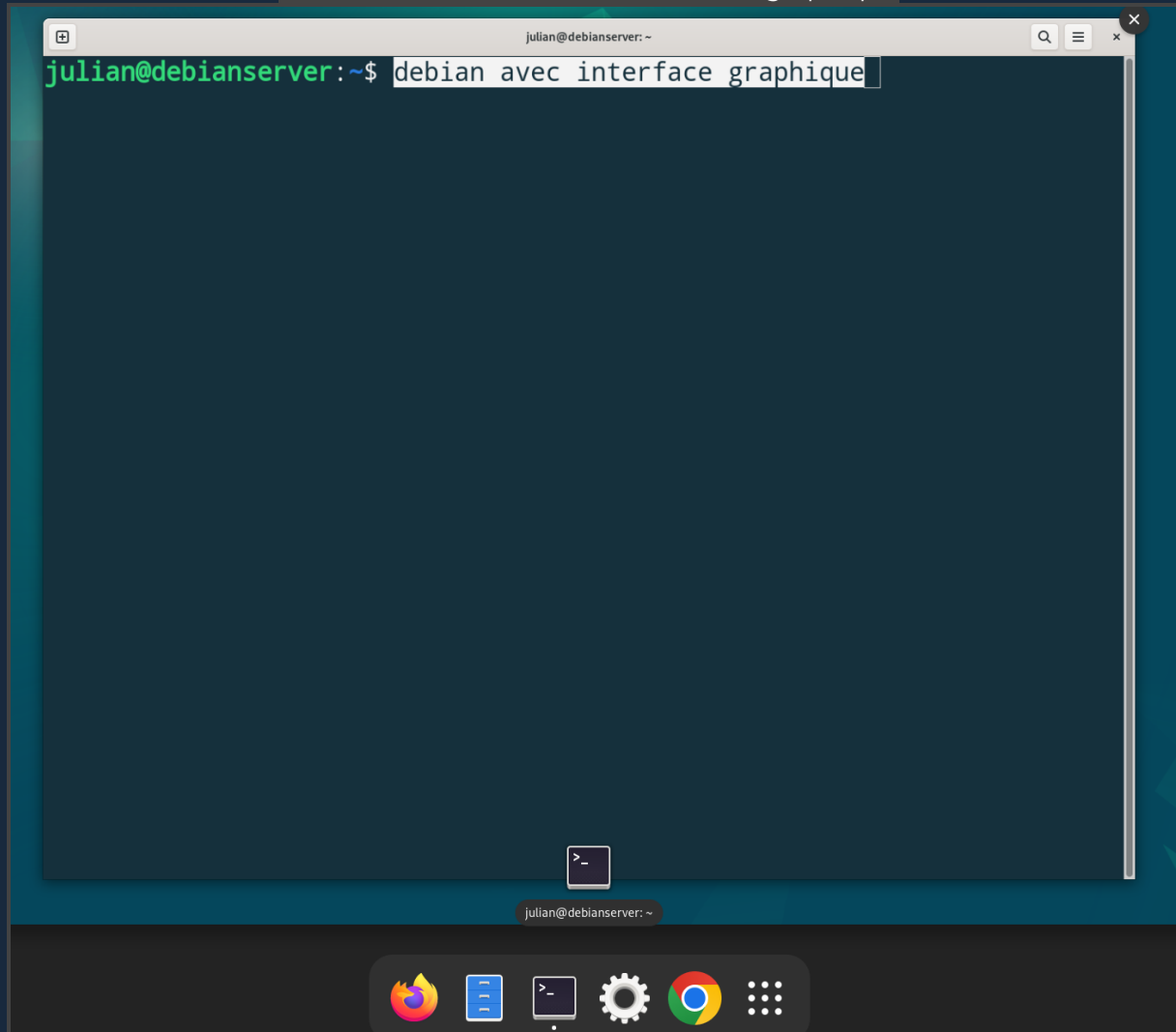


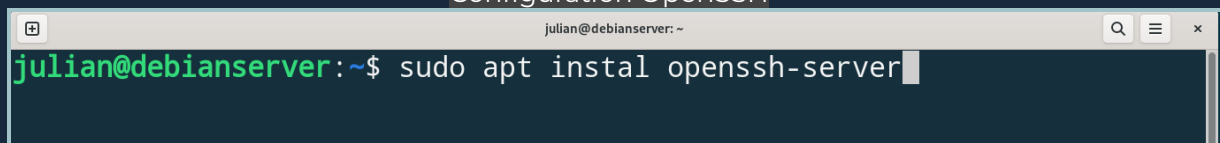
DDWS

JOB 01

Installation VM Debian avec interface graphique



Configuration OpenSSH



JOB 02

Installation de Apache2

```
julian@debianserver:~$ sudo apt install apache2
```

Affichage de l'adresse IP du serveur

```
julian@debianserver:~$ ip addr
1: lo: <LOOPBACK,UP,LOWER_UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
    inet 127.0.0.1/8 scope host lo
        valid_lft forever preferred_lft forever
    inet6 ::1/128 scope host noprefixroute
        valid_lft forever preferred_lft forever
2: ens33: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc fq_codel state UP group default qlen 1000
    link/ether 00:0c:29:4d:9b:a8 brd ff:ff:ff:ff:ff:ff
    altname enp2s1
    inet 192.168.1.117/24 brd 192.168.1.255 scope global dynamic noprefixroute ens33
        valid_lft 85316sec preferred_lft 85316sec
    inet6 2001:861:37c0:94f0:683d:5649:bdd9:8928/128 scope global dynamic noprefixroute
        valid_lft 2522sec preferred_lft 2522sec
    inet6 2001:861:37c0:94f0:69ad:ee2b:360d:163f/64 scope global temporary dynamic
        valid_lft 7181sec preferred_lft 5381sec
    inet6 2001:861:37c0:94f0:20c:29ff:fe4d:9ba8/64 scope global dynamic mngtmpaddr noprefixroute
        valid_lft 7181sec preferred_lft 5381sec
    inet6 fe80::20c:29ff:fe4d:9ba8/64 scope link noprefixroute
        valid_lft forever preferred_lft forever
```

Page web Apache2 atteignable depuis l'hôte

Apache2 Debian Default Page

It works!

This is the default welcome page used to test the correct operation of the Apache2 server after installation on Debian systems. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should **replace this file** (located at `/var/www/html/index.html`) before continuing to operate your HTTP server.

If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.

Configuration Overview

Debian's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Debian tools. The configuration system is **fully documented in `/usr/share/doc/apache2/README.Debian.gz`**. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the **manual** if the `apache2-doc` package was installed on this server.

The configuration layout for an Apache2 web server installation on Debian systems is as follows:

```
/etc/apache2/
|-- apache2.conf
|   |-- ports.conf
|-- mods-enabled
|   |-- *.load
|   |-- *.conf
|-- conf-enabled
|   |-- *.conf
|-- sites-enabled
|   |-- *.conf
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.



Apache est un logiciel de serveur web gratuit et open-source qui alimente environ 46% des sites web à travers le monde. Le nom officiel est Serveur Apache HTTP et il est maintenu et développé par Apache Software Foundation.



Nginx, prononcé comme « engine-ex », est un serveur web open-source qui, depuis son succès initial en tant que serveur web, est maintenant aussi utilisé comme reverse proxy, cache HTTP, et load balancer.



Microsoft IIS est le serveur web fonctionnant sous Windows Server. IIS permet de gérer une application web avec une prise en charge avancée des langages de programmation au travers des modules CGI. IIS s'installe et s'administre via le gestionnaire de serveur comme tous les rôles Windows Server



Lighttpd est un serveur web (*HTTP*) qui, de par sa légèreté, se veut rapide. Il supporte un grand nombre de fonctionnalités comparables à celles d'Apache (comme les rewrite, fast-cgi, proxy, etc.) pour des performances aussi bonnes sinon meilleures dans les tests faits par Lighttpd.

JOB 04

Installation serveur DNS avec bind9

```
julian@debianserver:~$ sudo apt install bind9
```

Configuration fichier zone

```
GNU nano 7.2 /etc/bind/named.conf.local
//
// Do any local configuration here
//
// Consider adding the 1918 zones here, if they are not used in your
// organization
//include "/etc/bind/zones.rfc1918";

zone "dnsproject.prepa.com" {
    type master;
    file "/etc/bind/zones/dnsproject.prepa.com.db";
};
```

Création fichier zone

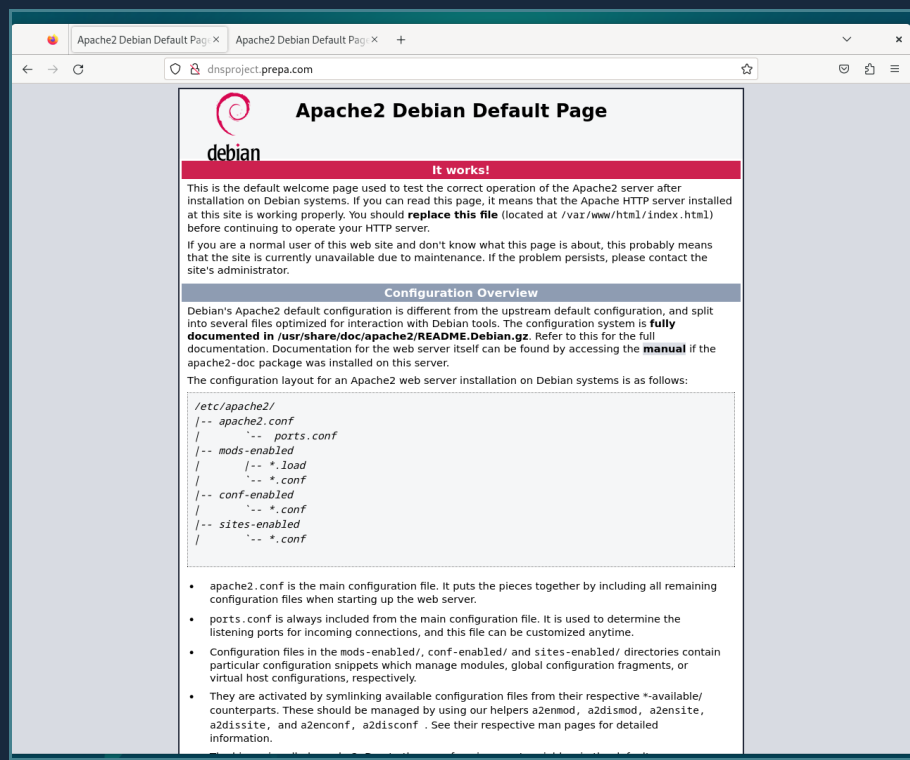
```
GNU nano 7.2 dnsproject.prepa.com.db *
;
; BIND data file for local loopback interface
;
$TTL      604800
@         IN      SOA      dnsproject.prepa.com. (
                                2           ; Serial
                                604800       ; Refresh
                                86400        ; Retry
                                2419200      ; Expire
                                604800 )     ; Negative Cache TTL
;
@         IN      NS       dnsproject.prepa.com.
@         IN      A        192.168.1.117
```

Configuration réseau

```
julian@debianserver: /etc/bind/zones
GNU nano 7.2 /etc/resolv.conf *
# Generated by NetworkManager
nameserver 192.168.1.117
```

Ping


```
julian@debianserver: /etc/bind/zones$ ping dnsproject.prepa.com
PING dnsproject.prepa.com (192.168.1.117) 56(84) bytes of data.
64 bytes from debianserver (192.168.1.117): icmp_seq=1 ttl=64 time=
24 ms
64 bytes from debianserver (192.168.1.117): icmp_seq=2 ttl=64 time=
39 ms
64 bytes from debianserver (192.168.1.117): icmp_seq=3 ttl=64 time=
63 ms
64 bytes from debianserver (192.168.1.117): icmp_seq=4 ttl=64 time=
46 ms
64 bytes from debianserver (192.168.1.117): icmp_seq=5 ttl=64 time=
42 ms
^C
--- dnsproject.prepa.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4007ms
rtt min/avg/max/mdev = 0.024/0.042/0.063/0.012 ms
```



JOB 06

Browser tabs: Intra - LaPlateforme_ | DDWS - Prépa Marseille.pdf | DDWS - Google Docs | Apache2 Debian Default Page | +

Address bar: dnsproject.prepa.com



Apache2 Debian Default Page

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/   |-- ports.conf
|-- mods-enabled
/   |-- *.load
/   |-- *.conf
|-- conf-enabled
/   |-- *.conf
|-- sites-enabled
/   |-- *.conf
```

`apache2.conf` is the main configuration file. It puts the pieces together by including all remaining

JOB 07

Installation pare-feu ufw

```
julian@debianserver:~$ sudo apt install ufw
Lecture des listes de paquets... Fait
Construction de l'arbre des dépendances... Fait
Lecture des informations d'état... Fait
Les paquets supplémentaires suivants seront installés :
  iptables libip6tc2
Paquets suggérés :
  firewalld xtables
```

Rejet des connexions entrantes

```
julian@debianserver:~$ sudo ufw default deny incoming
```

Rejet des connexions sortantes

```
julian@debianserver:~$ sudo ufw default deny outgoing
```

Ouverture ports TCP

```
julian@debianserver:~$ sudo allow 80/tcp
```

```
julian@debianserver:~$ sudo allow 445/tcp
```

```
julian@debianserver:~$ sudo allow 139/tcp
```

Modification fichier "before.rules"

```
# allow all on loopback
-A ufw-before-input -i lo -j ACCEPT
-A ufw-before-output -o lo -j ACCEPT

# quickly process packets for which we already have a connection
-A ufw-before-input -m conntrack --ctstate RELATED,ESTABLISHED -j ACCEPT
-A ufw-before-output -m conntrack --ctstate RELATED,ESTABLISHED -j ACCEPT
-A ufw-before-forward -m conntrack --ctstate RELATED,ESTABLISHED -j ACCEPT

# drop INVALID packets (logs these in loglevel medium and higher)
-A ufw-before-input -m conntrack --ctstate INVALID -j ufw-logging-deny
-A ufw-before-input -m conntrack --ctstate INVALID -j DROP

# ok icmp codes for INPUT
-A ufw-before-input -p icmp --icmp-type destination-unreachable -j DROP
-A ufw-before-input -p icmp --icmp-type time-exceeded -j DROP
-A ufw-before-input -p icmp --icmp-type parameter-problem -j DROP
-A ufw-before-input -p icmp --icmp-type echo-request -j DROP
```

^G Aide	^O Écrire	^W Chercher	^K Couper	^T Exécuter	^C Emplacement
^X Quitter	^R Lire fich.	^Y Remplacer	^U Coller	^J Justifier	^_ Aller ligne

JOB 08

Installation samba

```
julian@debianserver:~$ sudo apt install samba
```

Création fichier partagé

```
julian@debianserver:~$ mkdir sharing
```

Configuration samba

```
comment = partage  
path = /home/julian/sharing  
valid users = @users  
force group = users
```

JOB Pour aller plus loin...

Utilisation certbot

My HTTP website is running Apache on Debian 10

```
julian@debianserver:~$ sudo snap install --classic certbot
```

```
julian@debianserver:~$ sudo certbot --apache
```