Apache

Web Hosting Service

Linux   Http Server
Apache Web Server

Web Site

Html

192.168.1.10
172.16.0.10
10.0.0.100

httpd

Firewall

Client

10.0.0.1
Or
Name www.abc.com

10.0.0.10

Linux Server

www.abc.com

index.html — Virtual Host

10.0.0.10:80

mail.abc.com

index.html — Virtual Host

projects.abc.com

index.html — Virtual Host

🕐 Client
② IP Based
③ Port Based
④ Name Based

each site has IP
each IP need interface

the packet from user

source IP   Client IP
Destination IP 10.0.0.10
Source port any
Destination port 80

URL www.abc.com

httpd
name based

not secure, because many port are opens + user has to know the port.

I tell the fw to look at the name to know which is the target website.
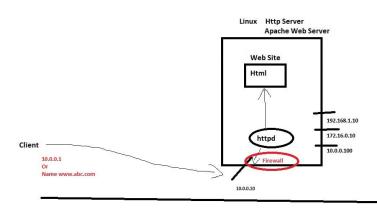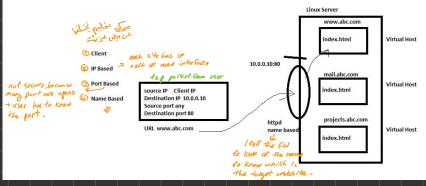

```
Configuring Apache webserver
Package                 httpd
Configuration files   /etc/httpd/conf/httpd.conf
Data files            /var/www/html                    web site contents
service started       httpd.service

# yum install httpd*
# tail -5 /etc/passwd
apache:x:48:48:Apache:/usr/share/httpd:/sbin/nologin
# ls /etc/httpd/conf/httpd.conf
# ls /var/www/html/
# systemctl status httpd.service

# vim /var/www/html/index.html
welcome to our web site
# firewall-cmd --add-service=http --permanent
# firewall-cmd --reload
# firewall-cmd --list-services
# systemctl enable httpd.service
# systemctl start httpd.service
# systemctl is-active httpd.service
active

# vim /var/named/abc.com.zone
www     IN     A        10.0.0.10
# systemctl restart named.service
```

```
Hosting Multiple Web Sites
Virtual Hosting        "Name Based"

1- Configure DNS Server
# vim /var/named/abc.com.zone
www     IN     A      10.0.0.10
mail    IN     A      10.0.0.10
projects       IN     A      10.0.0.10
# systemctl restart named.service

2- Create Document Root
# mkdir /var/www/html/www
# mkdir /var/www/html/mail
# mkdir /var/www/html/projects
# echo welcome to our web site > /var/www/html/www/index.html
# echo welcome to our mail site > /var/www/html/mail/index.html
# echo welcome to our projects site > /var/www/html/projects/index.html

3- Define Virtual hosts    /etc/httpd/conf/httpd.conf
# vim /etc/httpd/conf/httpd.conf
                    any IP
<VirtualHost *:80>
ServerName www.abc.com
DocumentRoot /var/www/html/www
</VirtualHost>

<VirtualHost *:80>
ServerName mail.abc.com
DocumentRoot /var/www/html/mail
</VirtualHost>

<VirtualHost *:80>
ServerName projects.abc.com
DocumentRoot /var/www/html/projects
</VirtualHost>

# systemctl restart httpd.service


# curl www.abc.com              view website contents command line
```