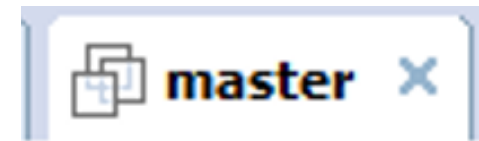
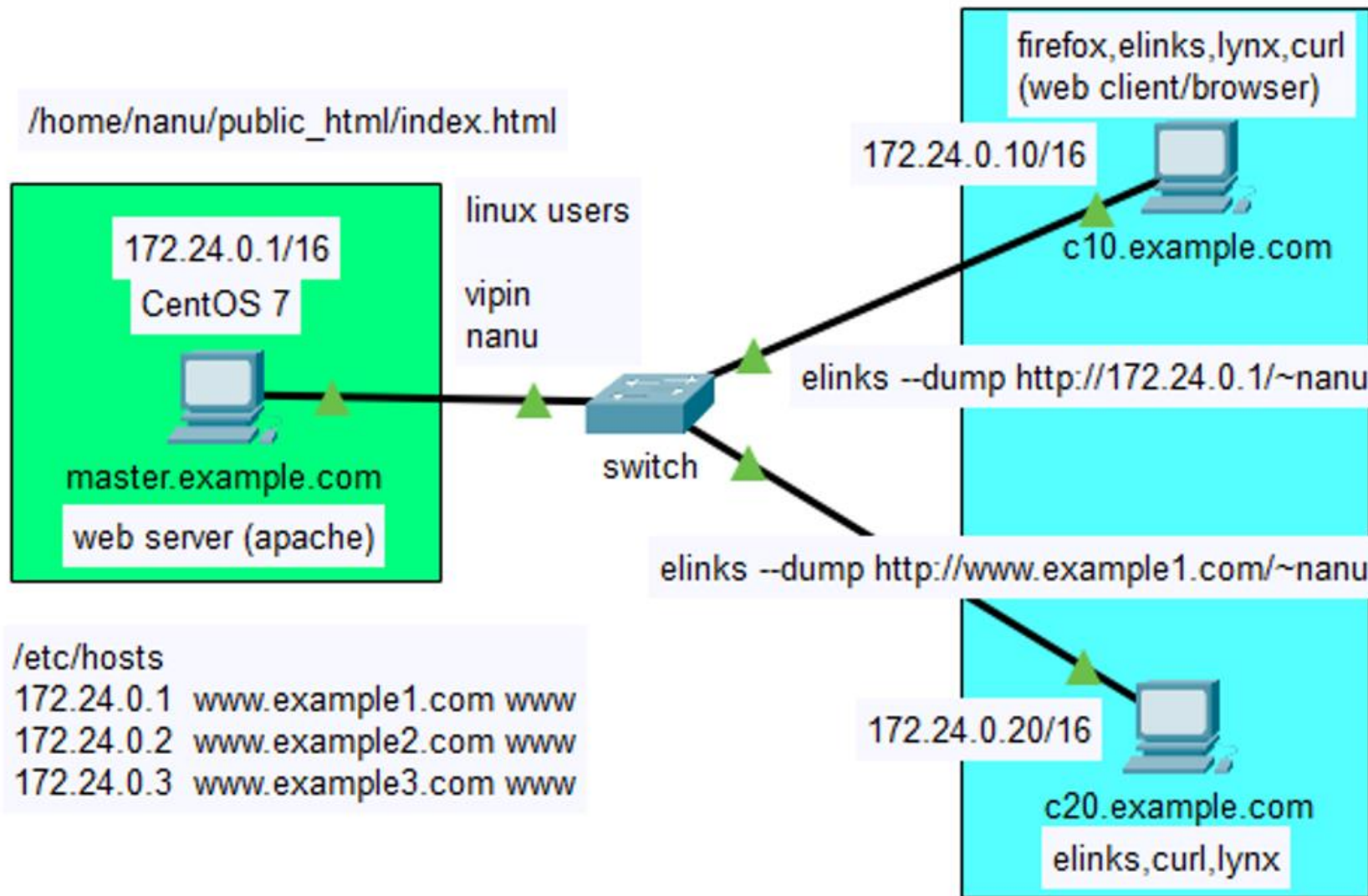


Per-user Web Directories

(Allow Users To Have Website In Their Home Directories)



Per-user Web Directories Lab Setup



Enable “UserDir public_html” Directive

Enable “UserDir” support for “public_html” directory based websites so that users can access the websites in “http://172.24.0.1/~user” format. We want “nanu” user to host his site so that others can view his site by specifying “http://172.24.0.1/~nanu” in web browser.

```
[root@master example1]# cat /etc/httpd/conf/httpd.conf |grep ^Include
Include conf.modules.d/*.conf
IncludeOptional conf.d/*.conf
[root@master example1]#
[root@master example1]# cat /etc/httpd/conf/httpd.conf |grep ^ServerRoot
ServerRoot "/etc/httpd"
[root@master example1]#
```

```
[root@master ~]# cd /etc/httpd/
[root@master httpd]#
[root@master httpd]# ls
conf  conf.d  conf.modules.d  logs  modules  run  webgroup  webpass
[root@master httpd]#
[root@master httpd]# cd conf.d/
[root@master conf.d]#
[root@master conf.d]# ls
autoindex.conf  php.conf  README  ssl.conf  userdir.conf  welcome.conf
[root@master conf.d]#
[root@master conf.d]# cat userdir.conf
```

Enable "UserDir public_html" Directive

Edit `"/etc/httpd/conf.d/userdir.conf"` file and put comment symbol before `"UserDir disable"` directive and uncomment `"UserDir public_html"` directive. Initial and modified configuration.

```
[root@master conf.d]# tail -26 userdir.conf
<IfModule mod_userdir.c>
#
# UserDir is disabled by default since it can confirm the presence
# of a username on the system (depending on home directory
# permissions).
#
UserDir disabled

#
# To enable requests to /~user/ to serve the user's public_html
# directory, remove the "UserDir disabled" line above, and uncomment
# the following line instead:
#
#UserDir public_html
</IfModule>

#
# Control access to UserDir directories. The following is an example
# for a site where these directories are restricted to read-only.
#
<Directory "/home/*/public_html">
    AllowOverride FileInfo AuthConfig Limit Indexes
    Options MultiViews Indexes SymLinksIfOwnerMatch IncludesNoExec
    Require method GET POST OPTIONS
</Directory>
```

```
[root@master conf.d]# systemctl reload httpd
```

```
[root@master conf.d]# tail -26 userdir.conf
<IfModule mod_userdir.c>
#
# UserDir is disabled by default since
# of a username on the system (depending
# permissions).
#
# UserDir disabled

#
# To enable requests to /~user/ to serve
# directory, remove the "UserDir disable
# the following line instead:
#
UserDir public_html
</IfModule>

#
# Control access to UserDir directories. Tl
# for a site where these directories are re:
#
<Directory "/home/*/public_html">
    AllowOverride FileInfo AuthConfig Limit
    Options MultiViews Indexes SymLinksIfOw
    Require method GET POST OPTIONS
</Directory>
```

Create Linux Users

Create 2 Linux users “vipin” and “nanu”.

```
[root@master ~]# useradd vipin
[root@master ~]#
[root@master ~]# useradd nanu
[root@master ~]#
[root@master ~]# passwd vipin
Changing password for user vipin.
New password:
BAD PASSWORD: The password is a palindrome
Retype new password:
passwd: all authentication tokens updated successfully.
[root@master ~]#
[root@master ~]# passwd nanu
Changing password for user nanu.
New password:
BAD PASSWORD: The password is a palindrome
Retype new password:
passwd: all authentication tokens updated successfully.
[root@master ~]#
```

Create Required Directory/Files

Now login as “nanu” user. Create “public_html” directory and in that directory create “index.html” file. Check the permissions on files and directories.

```
CentOS Linux 7 (Core)
Kernel 3.10.0-1160.6.1.el7.x86_64 on an x86_64

master login: nanu
Password:
[nanu@master ~]$ pwd
/home/nanu
[nanu@master ~]$ mkdir public_html
[nanu@master ~]$
[nanu@master ~]$ ls -ld public_html
drwxrwxr-x 2 nanu nanu 6 Jan  9 17:03 public_html
[nanu@master ~]$
[nanu@master ~]$ chmod 755 public_html
[nanu@master ~]$
[nanu@master ~]$ ls -ld public_html
drwxr-xr-x 2 nanu nanu 6 Jan  9 17:03 public_html
[nanu@master ~]$
[nanu@master ~]$ cd public_html/
[nanu@master public_html]$
[nanu@master public_html]$ cat >index.html
wel to nanu user home page
[nanu@master public_html]$
[nanu@master public_html]$ pwd
/home/nanu/public_html
```

Verify Access To User Website

Access web page by using “`elinks --dump http://172.24.0.1/~nanu`”. It is showing “don't have permission” type of error.

```
[root@c10 ~]# elinks --dump http://172.24.0.1/~nanu
Forbidden
```

```
    You don't have permission to access /~nanu on this server.
[root@c10 ~]#
```

Change Home Directory Permissions

Change the permissions of `"/home/nanu"` directory to `"711"` so that `"others"` can enter the directory.

```
[nanu@master public_html]$ cd ../../
[nanu@master home]$
[nanu@master home]$ pwd
/home
[nanu@master home]$ ls -ld nanu
drwx----- 3 nanu nanu 81 Jan  9 17:03 nanu
[nanu@master home]$
[nanu@master home]$ chmod 711 nanu
[nanu@master home]$
[nanu@master home]$ ls -ld nanu
drwx--x--x 3 nanu nanu 81 Jan  9 17:03 nanu
[nanu@master home]$
[nanu@master home]$ pwd
/home
[nanu@master home]$ cd
[nanu@master ~]$
[nanu@master ~]$ pwd
/home/nanu
```

Again Verify Access To User Website

Now we are able to view the web page.

```
[root@c10 ~]# elinks --dump http://172.24.0.1/~nanu
  wel to nanu user home page
[root@c10 ~]#
```

Checking Log Files For Troubleshooting Purposes

Apache web server keeps log files and error files in `"/var/log/httpd"` directory. You can view the `"access_log"` by viewing `"/var/log/httpd/access_log"` file and `"error_log"` by viewing `"/var/log/httpd/error_log"` file. These files gives you very useful information.

The log files are maintained in `"common log format"` which is standard text log format which can be analyzed by many analyzers.

```
[root@master ~]# tail -1 /var/log/httpd/access_log
172.24.0.10 - - [09/Jan/2021:17:14:37 +0530] "GET /~nanu/ HTTP/1.1" 200 27 "http://172.24.0.1/~nanu" "ELinks/0.12pre6 (textmode; Linux; -)"
[root@master ~]#
[root@master ~]# tail -1 /var/log/httpd/error_log
[Sat Jan 09 17:10:46.681583 2021] [core:error] [pid 1948] (13)Permission denied: [client 172.24.0.10:54324] AH00035: access to /~nanu denied (filesystem path '/home/nanu/public_html') because search permissions are missing on a component of the path
[root@master ~]#
```