

ITIM

PRACTICAL - 1

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Batch : 61(CBA)

Tasks :

1) Configuration of apache web server

2) Create one

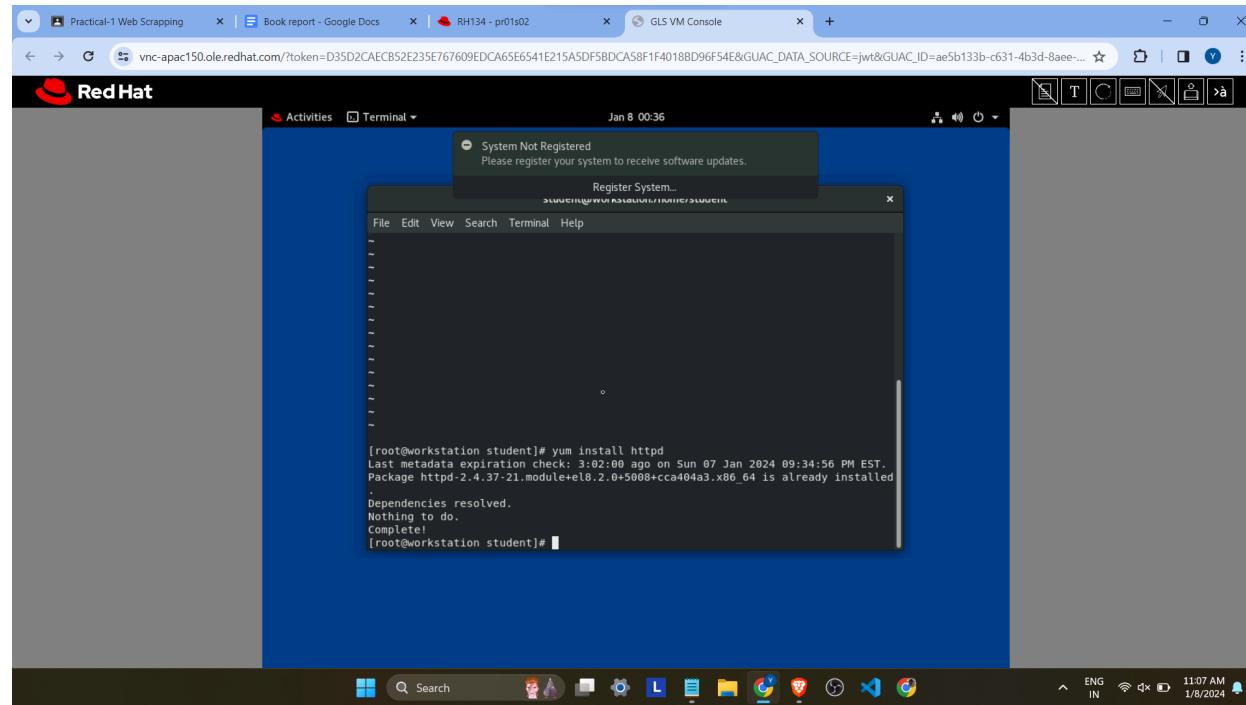
directory with your name and another with your friend's name in apache server's root directory and configure your apache server in such a way that whenever you try to access the contents of the directory with your name, it gets redirected and display contents from the directory with your friend's name.

3) Create one directory with your enrolment

number in apache server's root directory and another with your friend's enrolment number outside the root path. Configure your apache server in such a way that you should be able to access the contents of a directory while trying to access content from another directory.

1) Configuration of apache web server

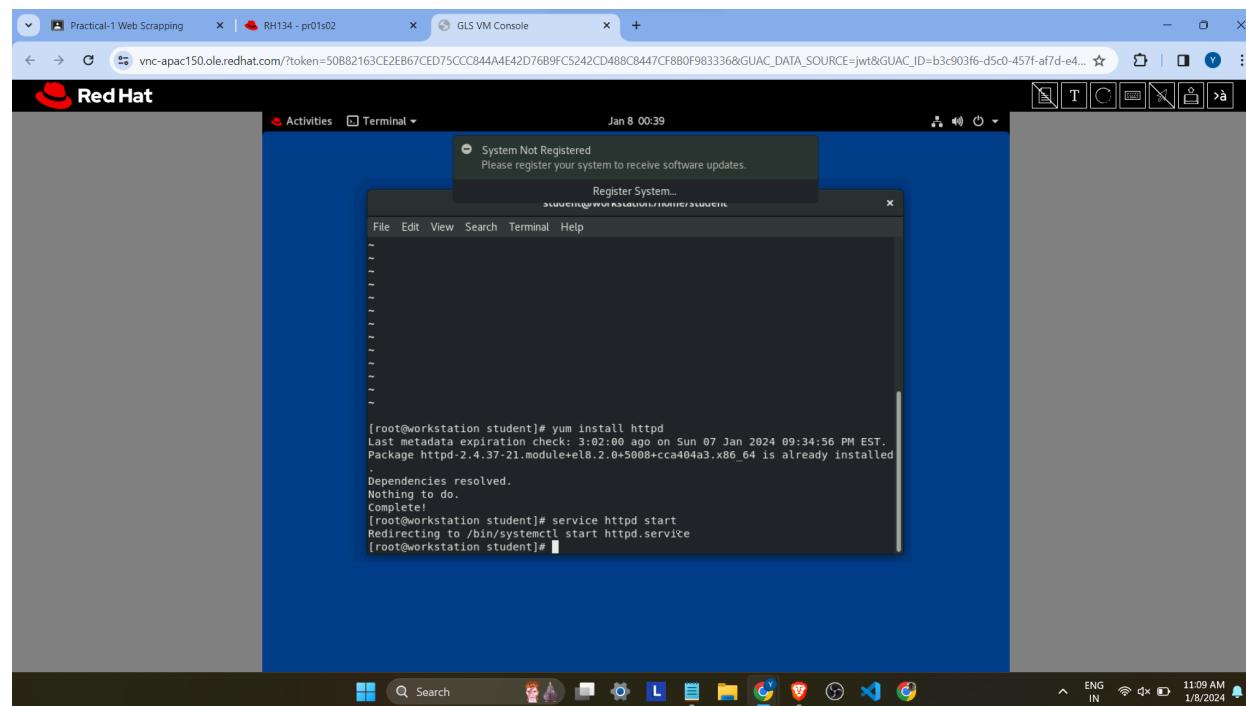
- Install httpd service : Use **yum install httpd**



A screenshot of a Red Hat Linux desktop environment. A terminal window is open, showing the command `yum install httpd` being run. The output indicates that the package `httpd-2.4.37-21.module+el8.2.0+5008+cca404a3.x86_64` is already installed, so nothing needs to be done. The terminal window has a dark background and white text. The desktop interface includes a taskbar at the bottom with various icons and a system tray on the right.

```
[root@student ~]# yum install httpd
Last metadata expiration check: 3:02:00 ago on Sun 07 Jan 2024 09:34:56 PM EST.
Package httpd-2.4.37-21.module+el8.2.0+5008+cca404a3.x86_64 is already installed
Dependencies resolved.
Nothing to do.
Complete!
[root@student ~]#
```

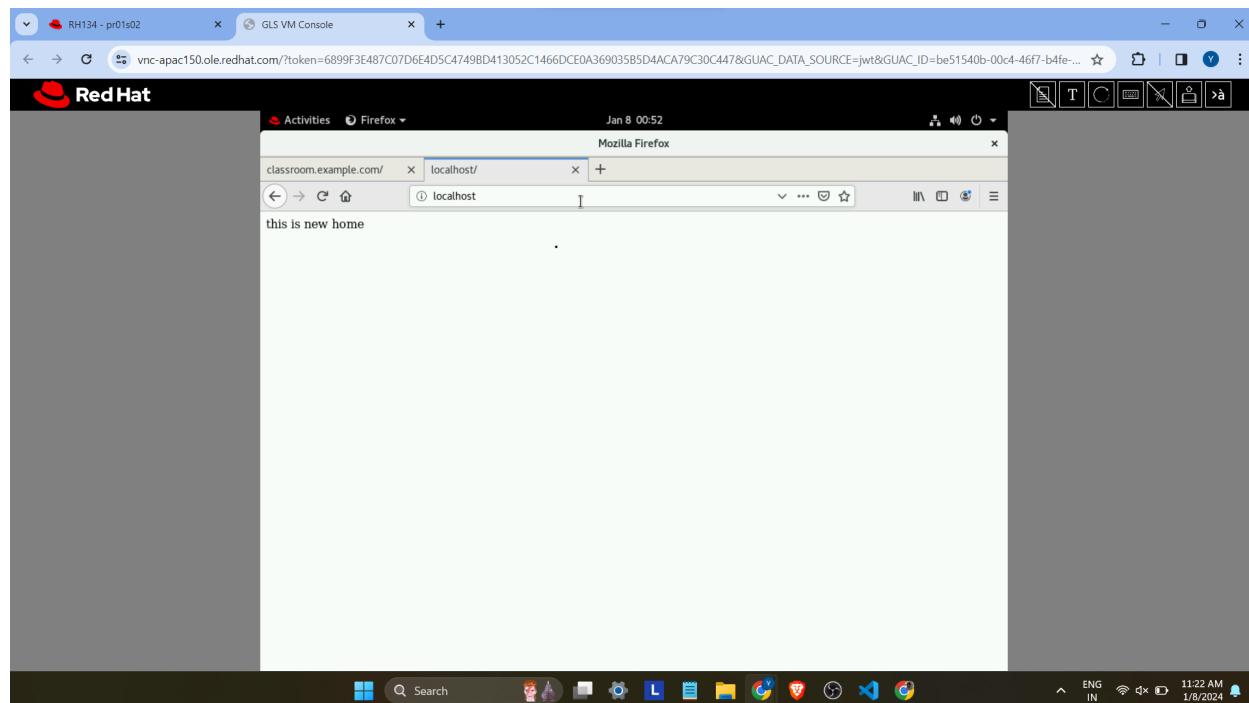
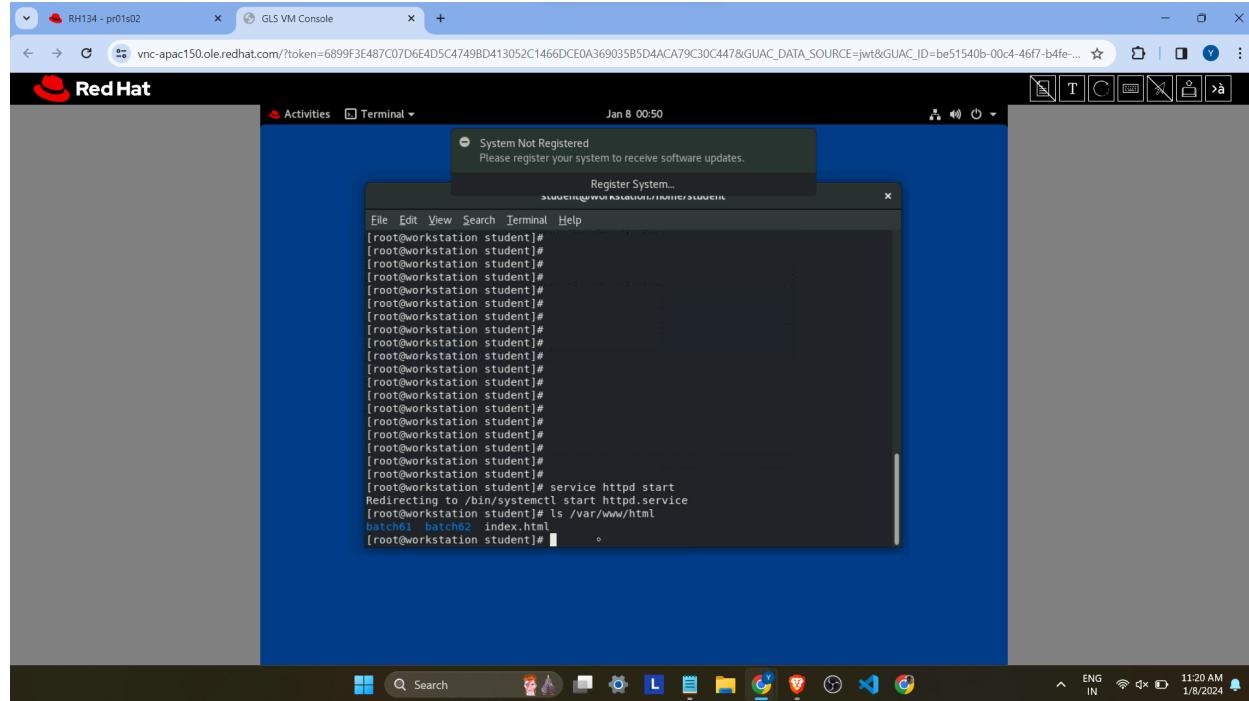
- Start httpd service: To Start the service use : **service httpd start**



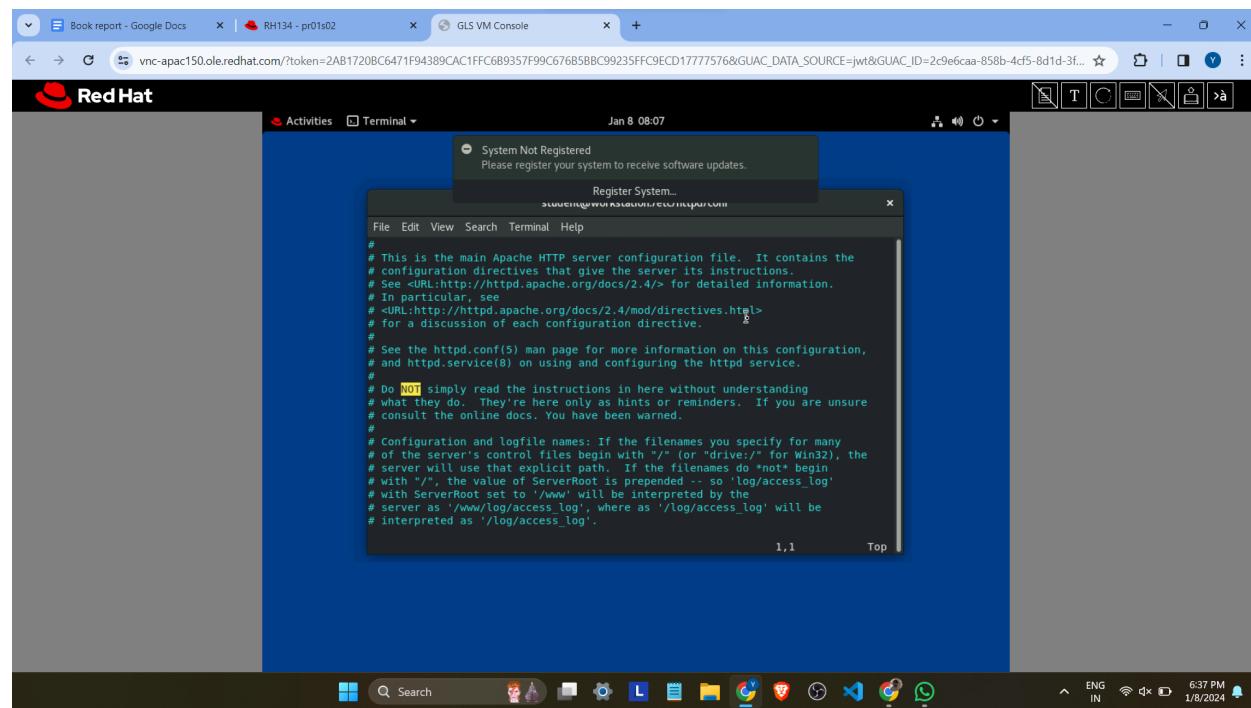
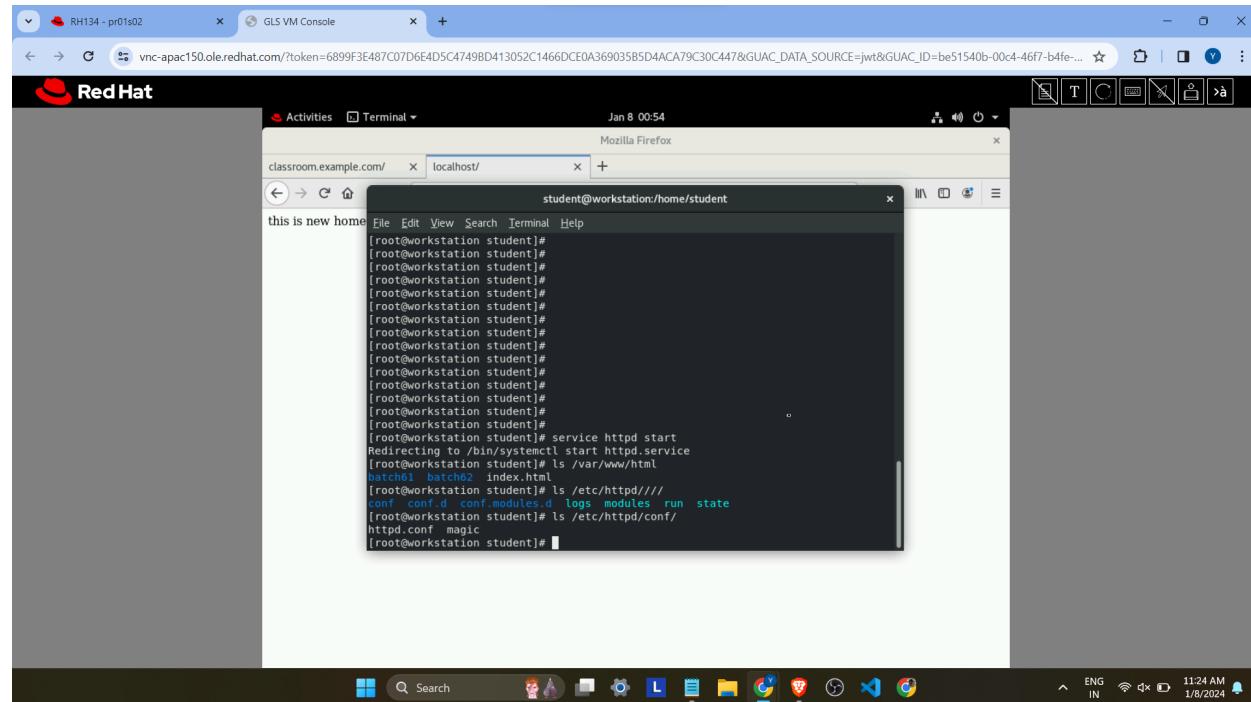
A screenshot of a Red Hat Linux desktop environment. A terminal window is open, showing the command `service httpd start` being run. The output shows the command being redirected to `/bin/systemctl start httpd.service`. The terminal window has a dark background and white text. The desktop interface includes a taskbar at the bottom with various icons and a system tray on the right.

```
[root@student ~]# yum install httpd
Last metadata expiration check: 3:02:00 ago on Sun 07 Jan 2024 09:34:56 PM EST.
Package httpd-2.4.37-21.module+el8.2.0+5008+cca404a3.x86_64 is already installed
Dependencies resolved.
Nothing to do.
Complete!
[root@student ~]# service httpd start
Redirecting to /bin/systemctl start httpd.service
[root@student ~]#
```

- Home directory of httpd service : use **cd /var/www/html** to get into home directory and **ls** to check for files in that directory



- Configuration file of httpd service : use **vim /etc/httpd/conf/httpd.conf** to get into file



- 2) Creating directory with my name and my friend's name with **mkdir yagna aryan**. Mkdir is used to make directories followed by directory name.

```
[student@workstation ~]$ su root
Password:
redhat
su: Authentication failure
[student@workstation ~]$ redhat
bash: redhat: command not found...
[student@workstation ~]$ su root
Password:

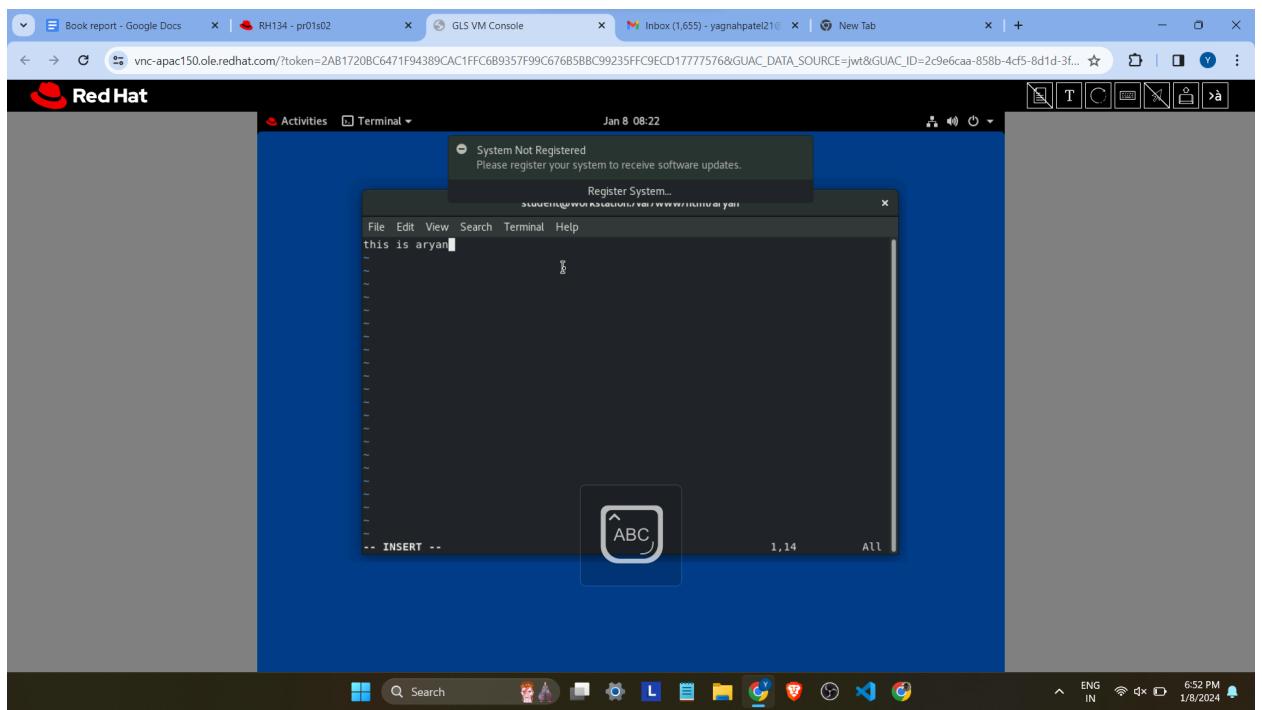
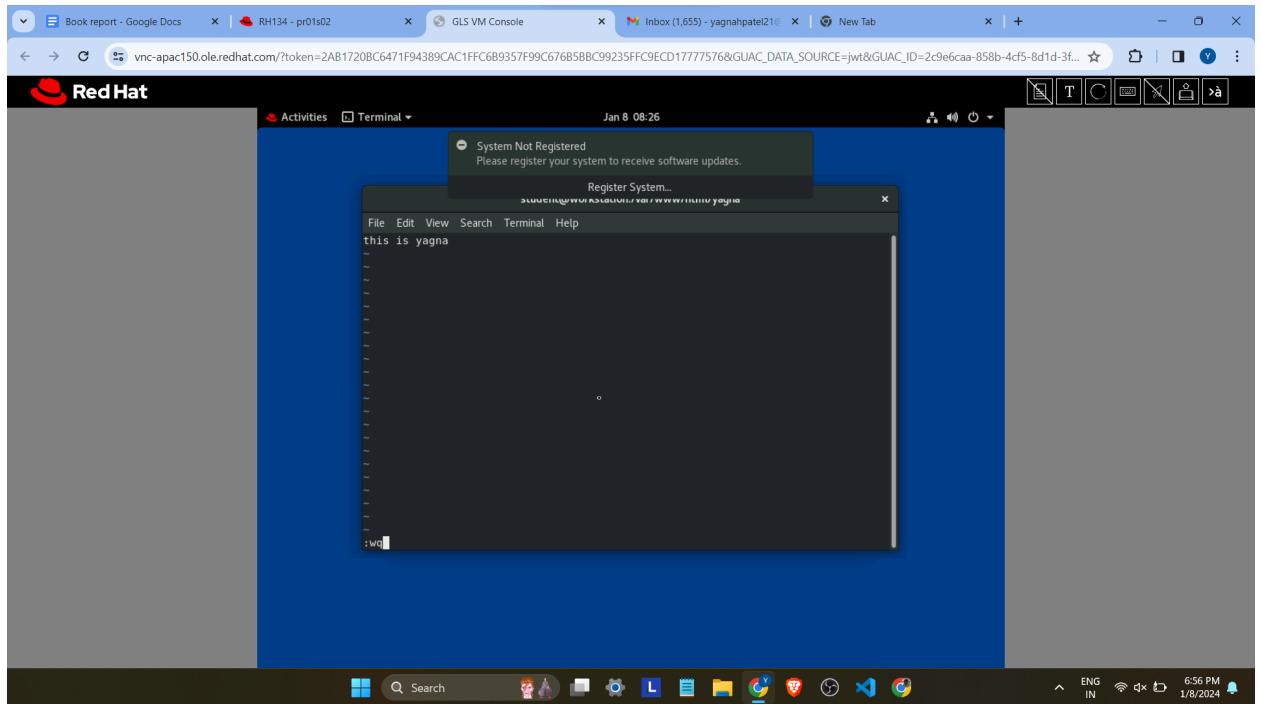
(process:2747): dconf-WARNING **: 08:17:02.355: failed to commit changes to dconf
f: The connection is closed
[root@workstation student]# cd /var/www/html
[root@workstation html]# ls
batch61 batch62 index.html
[root@workstation html]# mkdir yagna aryan
[root@workstation html]# ls
arian batch61 batch62 index.html yagna
[root@workstation html]#
```

- Adding index.html using **touch index.html**. touch is used to make files through terminal

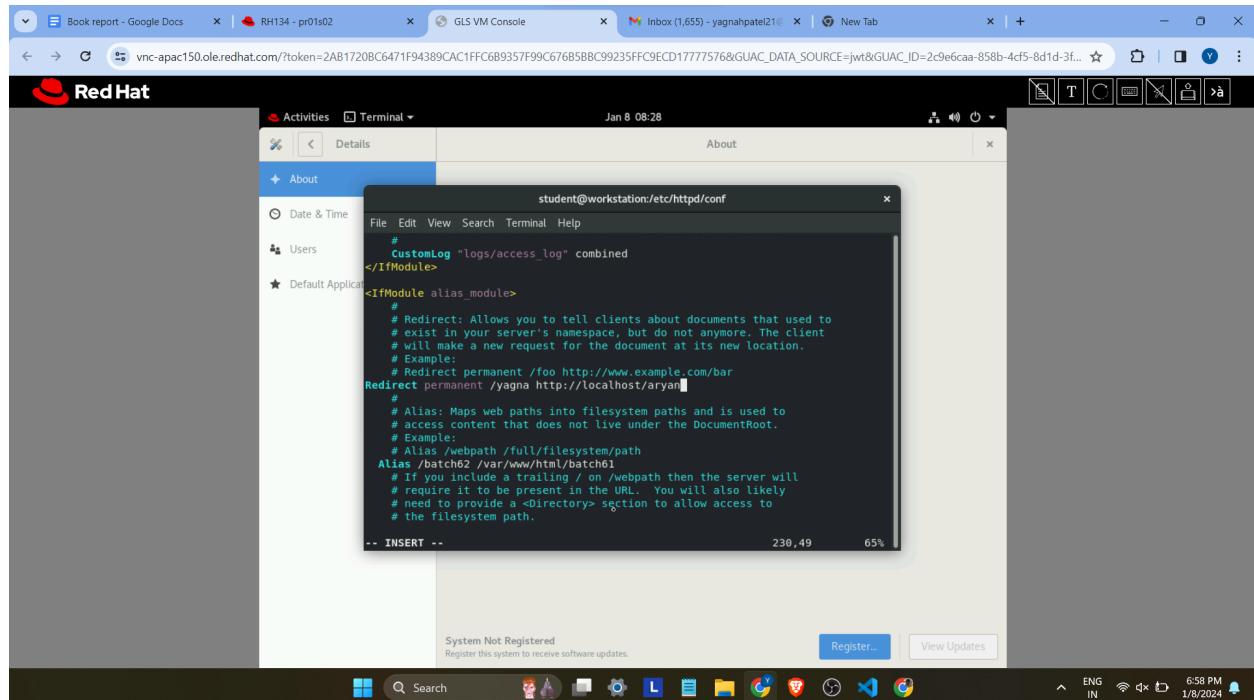
```
[student@workstation ~]$ su root
Password:
redhat
su: Authentication failure
[student@workstation ~]$ redhat
bash: redhat: command not found...
[student@workstation ~]$ su root
Password:

(process:2747): dconf-WARNING **: 08:17:02.355: failed to commit changes to dconf
f: The connection is closed
[root@workstation student]# cd /var/www/html
[root@workstation html]# ls
batch61 batch62 index.html
[root@workstation html]# mkdir yagna aryan
[root@workstation html]# ls
arian batch61 batch62 index.html yagna
[root@workstation html]# touch index.html
[root@workstation html]# cd yagna
[root@workstation yagna]# cd ..
[root@workstation yagna]# cd aryan
[root@workstation aryan]# touch index.html
[root@workstation aryan]#
```

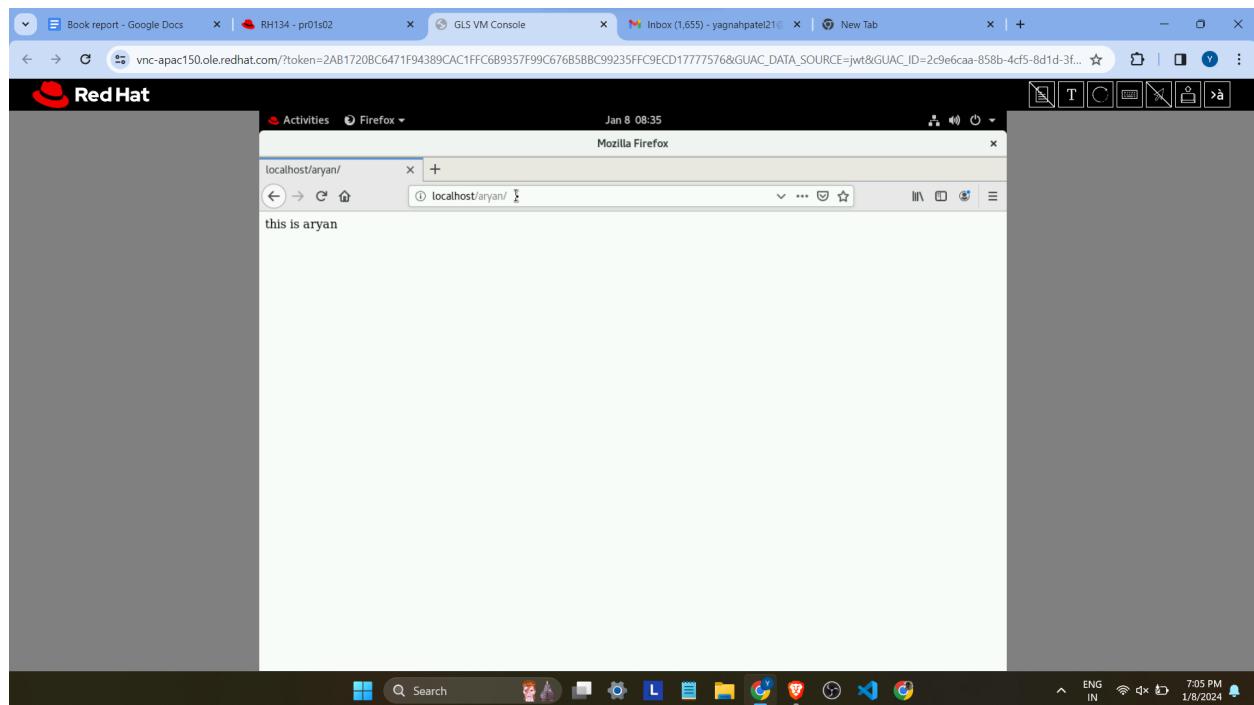
- Add content in file through vim index.html



- Now in httpd.conf write **Redirect permanent /yagna http://localhost/aryan**. This command is used to redirect to aryan whenever user tries to access yagna. Permanent signals long-term usage of this command. Also note to restart the httpd service everytime a change is made in configuration file using **service httpd restart**.



```
# CustomLog "logs/access_log" combined
</IfModule>
<IfModule alias_module>
#
# Redirect: Allows you to tell clients about documents that used to
# exist in your server's namespace, but do not anymore. The client
# will make a new request for the document at its new location.
# Example:
# Redirect permanent /foo http://www.example.com/bar
Redirect permanent /yagna http://localhost/aryan
#
# Alias: Maps web paths into filesystem paths and is used to
# access content that does not live under the DocumentRoot.
# Example:
# Alias /webpath /full/filesystem/path
Alias /batch02 /var/www/html/batch01
# If you include a trailing / on /webpath then the server will
# require it to be present in the URL. You will also likely
# need to provide a <Directory> section to allow access to
# the filesystem path.
```



3) Create two directories with enrollment no.

The screenshot displays a Red Hat Linux desktop environment with two terminal windows open. The top terminal window shows a command-line session:

```
student@workstation:/var/www/html/21162101020
File Edit View Search Terminal Help
[root@workstation aryan]# vim index.html
[root@workstation aryan]# cd /etc/httpd/conf
[root@workstation conf]# ls
index.conf  magic
[root@workstation conf]# vim httpd.conf
[root@workstation conf]# service httpd restart
Redirecting to /bin/systemctl restart httpd.service
[root@workstation conf]# cd ..
[root@workstation ~]# cd /var/www/html/yagna
[root@workstation yagna]# cd..
bash: cd..: command not found...
[root@workstation yagna]# cd ..
[root@workstation html]# mkdir 21162101020 21162101006
[root@workstation html]# ls
21162101006 21162101020  aryan batch01 batch02 index.html yagna
[root@workstation html]# cd 21162101006
[root@workstation 21162101006]# touch index.html
[root@workstation 21162101006]# cd ..
[root@workstation html]# cd 21162101020
[root@workstation 21162101020]# touch index.html
[root@workstation 21162101020]# vim index.html
[root@workstation 21162101020]#
```

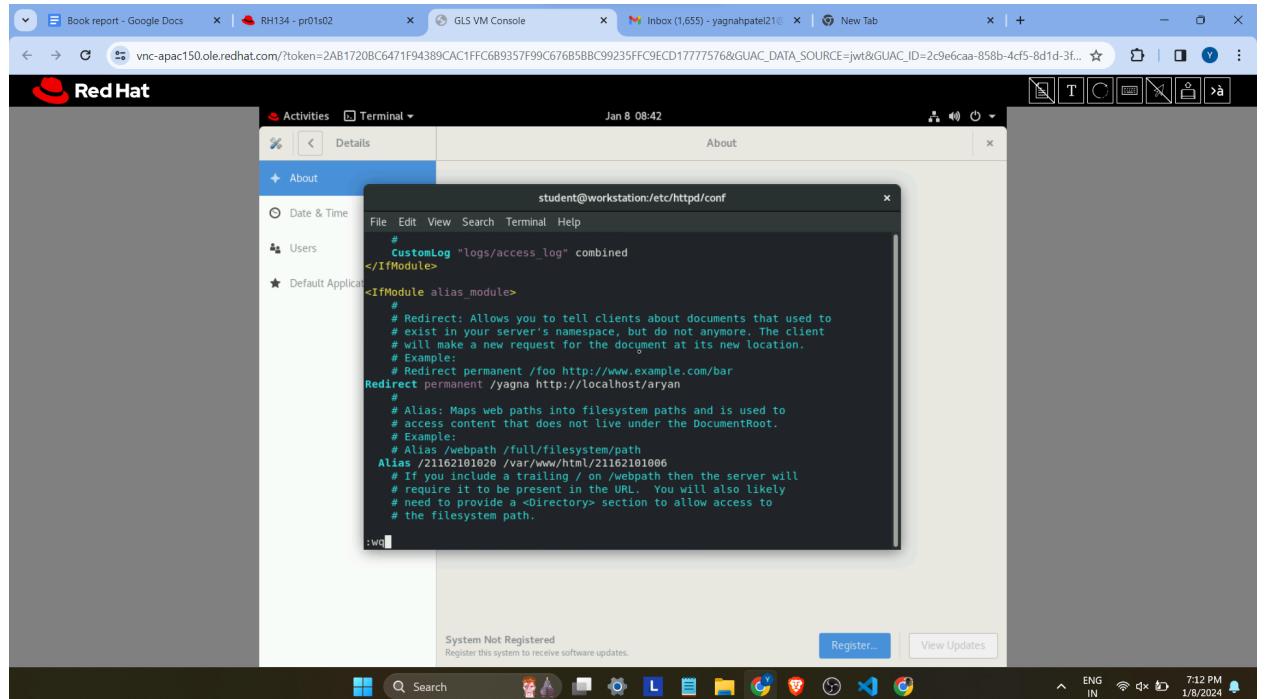
The bottom terminal window shows a command-line session:

```
student@workstation:/var/www/html/21162101006
File Edit View Search Terminal Help
this is 06
~
```

The desktop interface includes a taskbar at the bottom with various application icons and system status indicators.

- Now open httpd.conf file & use this command :

Alias /21162101020 /var/www/html/21162101006. This command will now show the index.html file of 21162101006 on 21162101020 and this is not redirecting so the url will not change it will be localhost/21162101020. Note to restart the httpd service after changing the configuration file.



```
# CustomLog "logs/access_log" combined
</IfModule>
<ifModule alias_module>
#
# Redirect: Allows you to tell clients about documents that used to
# exist in your server's namespace, but do not anymore. The client
# will make a new request for the document at its new location.
# Example:
# Redirect permanent /foo http://www.example.com/bar
#
# Alias: Maps web paths into filesystem paths and is used to
# access content that does not live under the DocumentRoot.
# Example:
# Alias /webpath /full/filesystem/path
Alias /21162101020 /var/www/html/21162101006
# If you include a trailing / on /webpath then the server will
# require it to be present in the URL. You will also likely
# need to provide a <directory> section to allow access to
# the filesystem path.
```

