

APACHE (Web/HTTP) SERVER

Class I

Apache Web Server

- Apache web server
- The Apache Web server is a free HTTP (Web) server developed by the Apache Server Project.
- It is a reliable, efficient, and easily extensible Web Server
- Free open source code

Apache Web Server

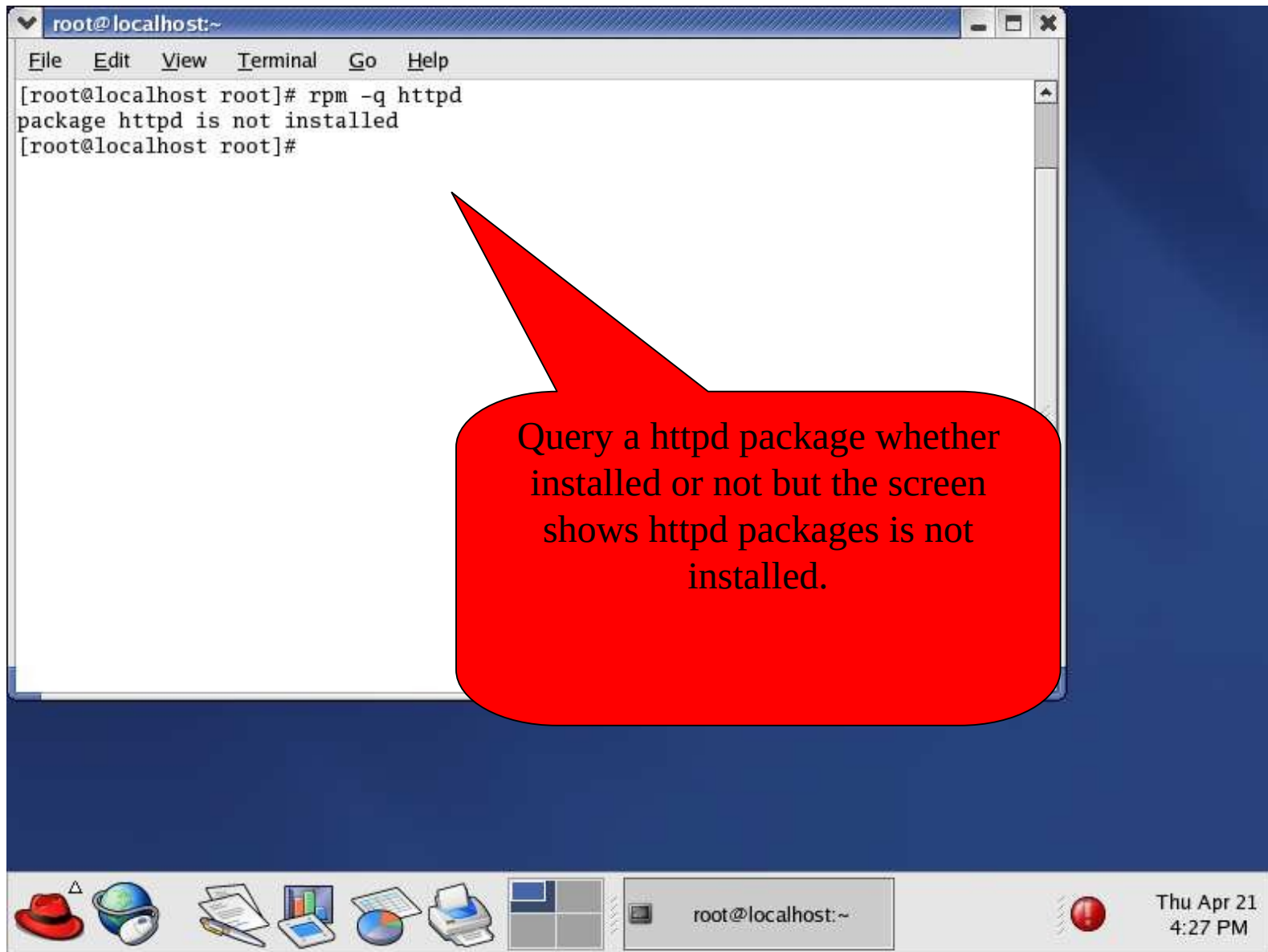
Important directories and configuration files

Web Site Directories	Description
/var/www	Directory for Apache Web site files on your Red Hat.
/var/www/html	Web site Web files.
/var/www/cgi-bin	CGI program files.
/var/www/usage	Apache Web server manual.
Configuration Files	
.htaccess	Directory-based configuration files. An .htaccess file holds directives to control access to files within the directory in which it is located.
/etc/httpd/conf	Directory for Apache Web server configuration files.
/etc/httpd/conf/httpd.conf	Primary Apache Web server configuration file (from version 1.3.4, it holds all configuration directives).

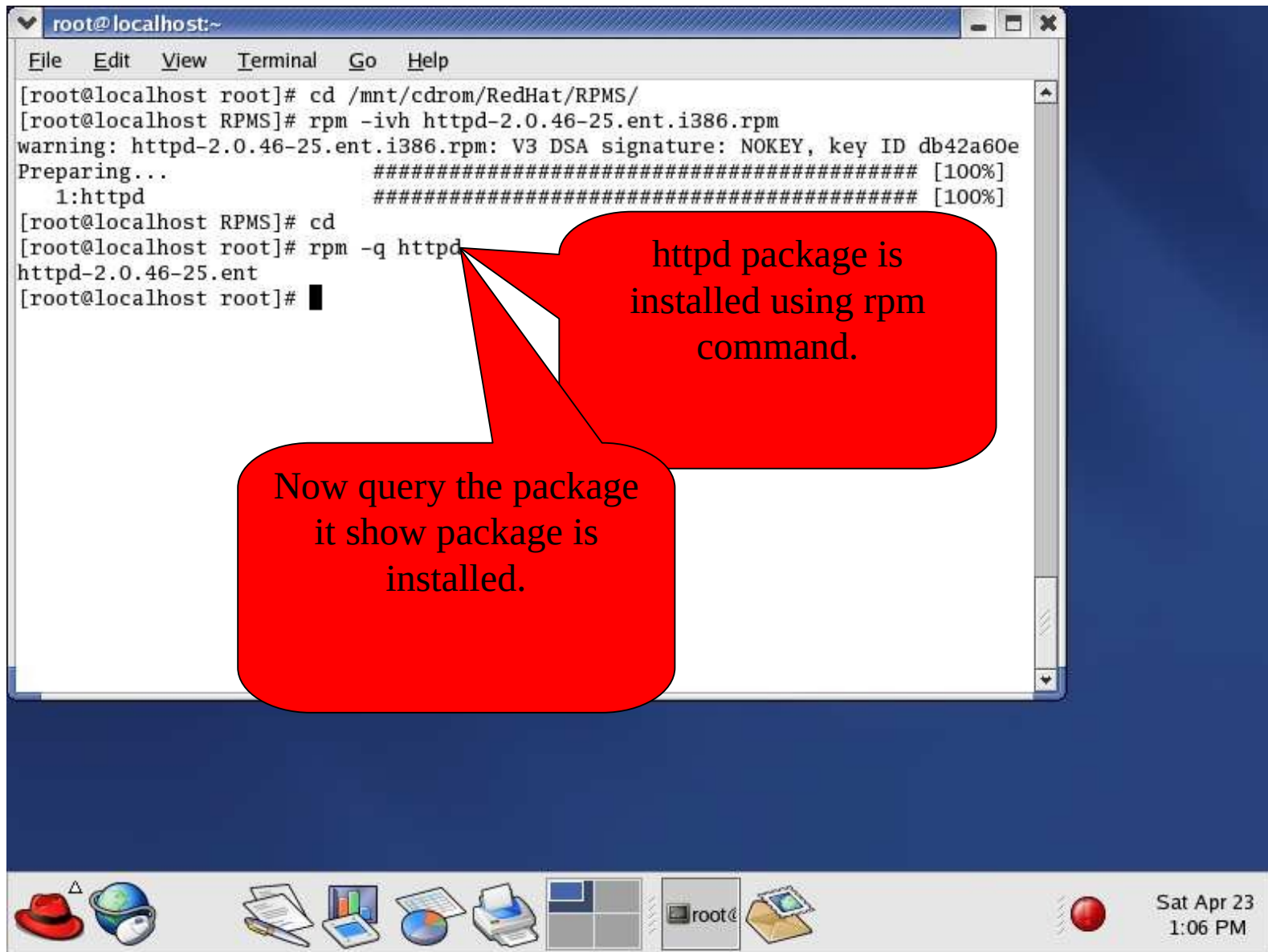
Service profile

- Packages : httpd
- Configurations file : /etc/httpd/conf/httpd.conf
- Daemon : httpd
- Port Number : 80

Web server configuration



Web server configuration



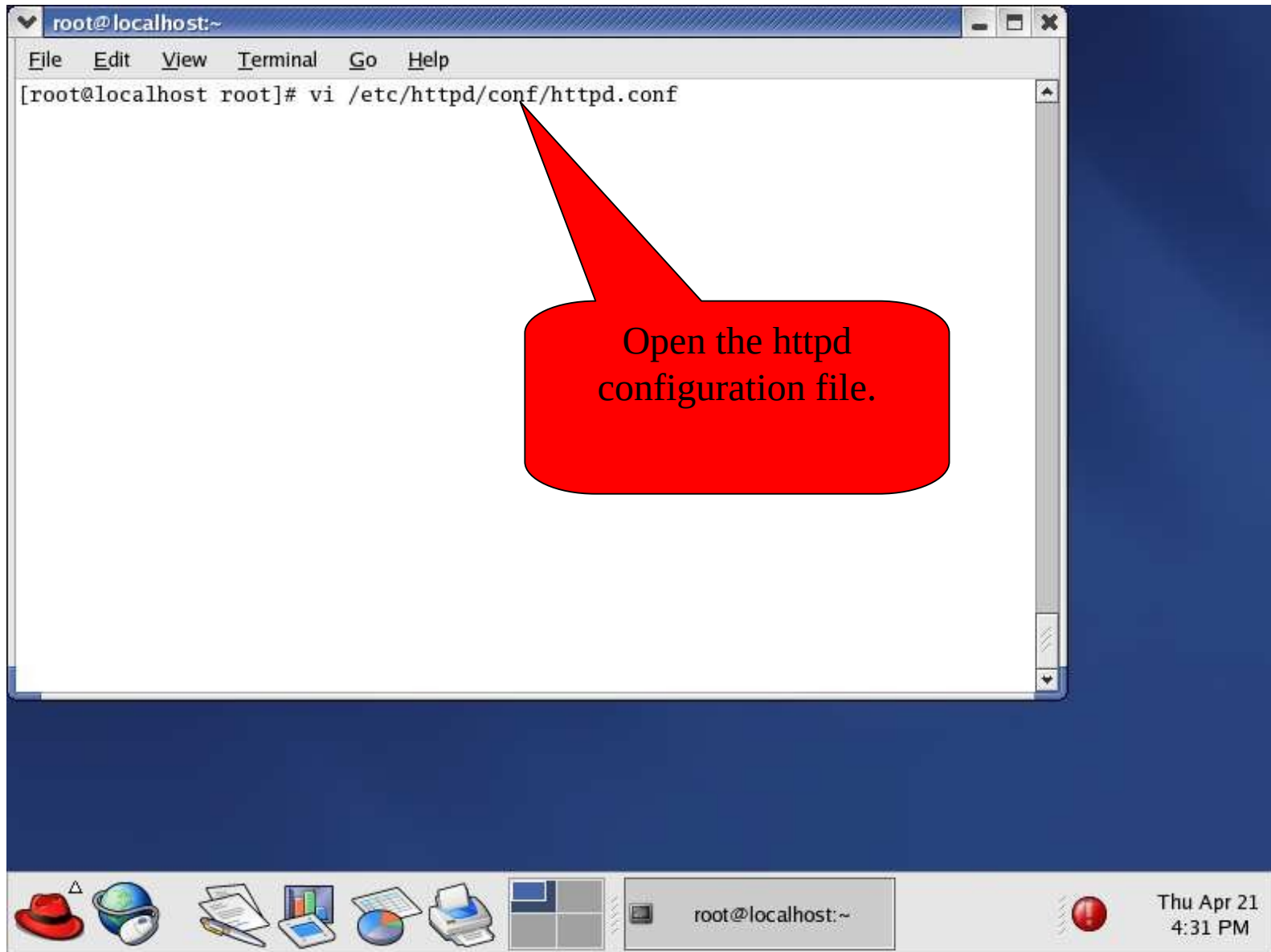
```
root@localhost:~  
File Edit View Terminal Go Help  
[root@localhost root]# cd /mnt/cdrom/RedHat/RPMS/  
[root@localhost RPMS]# rpm -ivh httpd-2.0.46-25.ent.i386.rpm  
warning: httpd-2.0.46-25.ent.i386.rpm: V3 DSA signature: NOKEY, key ID db42a60e  
Preparing... ##### [100%]  
1:httpd ##### [100%]  
[root@localhost RPMS]# cd  
[root@localhost root]# rpm -q httpd  
httpd-2.0.46-25.ent  
[root@localhost root]#
```

httpd package is installed using rpm command.

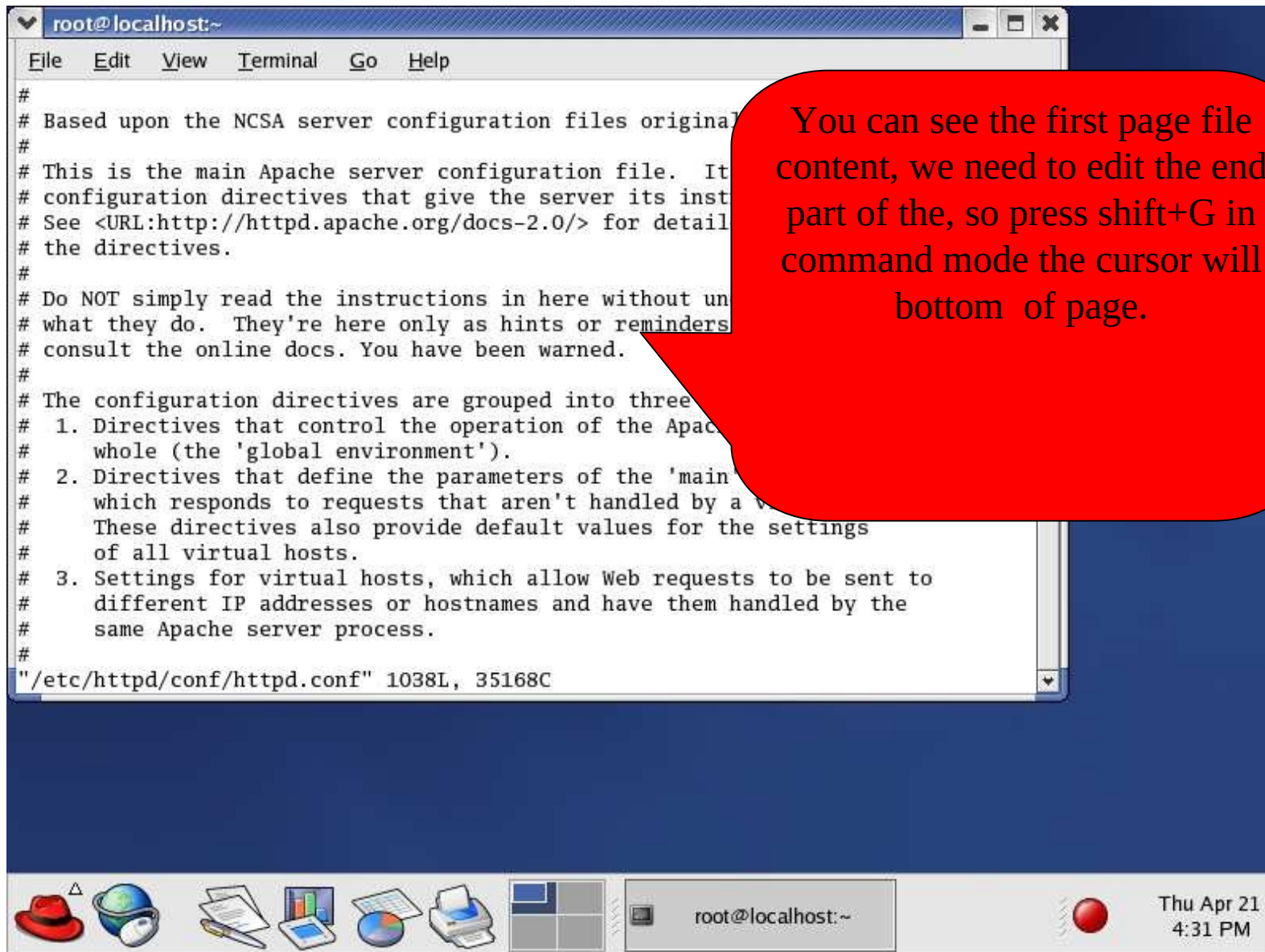
Now query the package it show package is installed.

Sat Apr 23 1:06 PM

Web server configuration



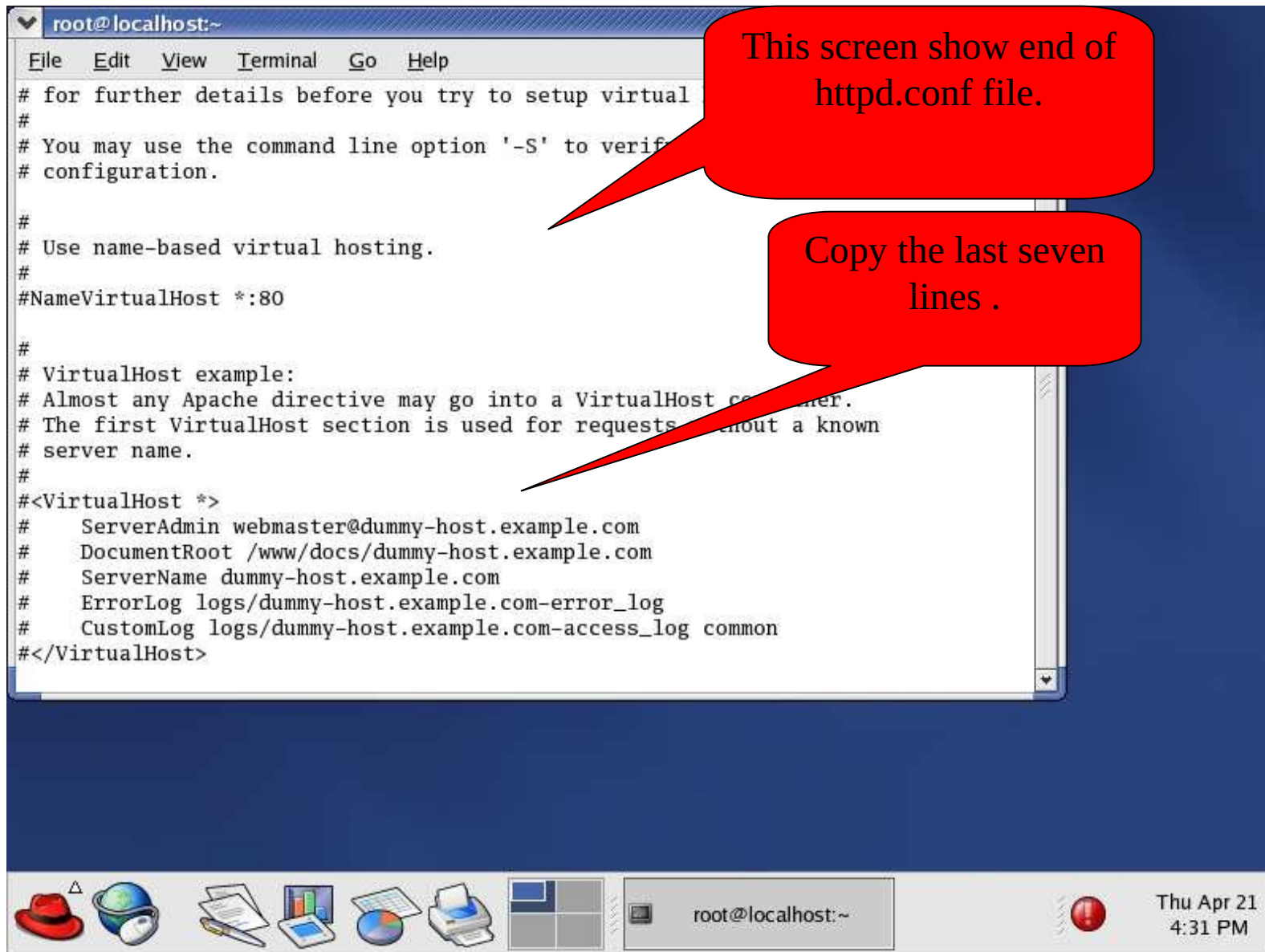
Web server configuration



```
root@localhost:~  
File Edit View Terminal Go Help  
#  
# Based upon the NCSA server configuration files original  
#  
# This is the main Apache server configuration file. It  
# configuration directives that give the server its inst  
# See <URL:http://httpd.apache.org/docs-2.0/> for detail  
# the directives.  
#  
# Do NOT simply read the instructions in here without un  
# what they do. They're here only as hints or reminders  
# consult the online docs. You have been warned.  
#  
# The configuration directives are grouped into three  
# 1. Directives that control the operation of the Apac  
# whole (the 'global environment').  
# 2. Directives that define the parameters of the 'main'  
# which responds to requests that aren't handled by a v  
# These directives also provide default values for the settings  
# of all virtual hosts.  
# 3. Settings for virtual hosts, which allow Web requests to be sent to  
# different IP addresses or hostnames and have them handled by the  
# same Apache server process.  
#  
"/etc/httpd/conf/httpd.conf" 1038L, 35168C
```

You can see the first page file content, we need to edit the end part of the, so press shift+G in command mode the cursor will bottom of page.

Web server configuration



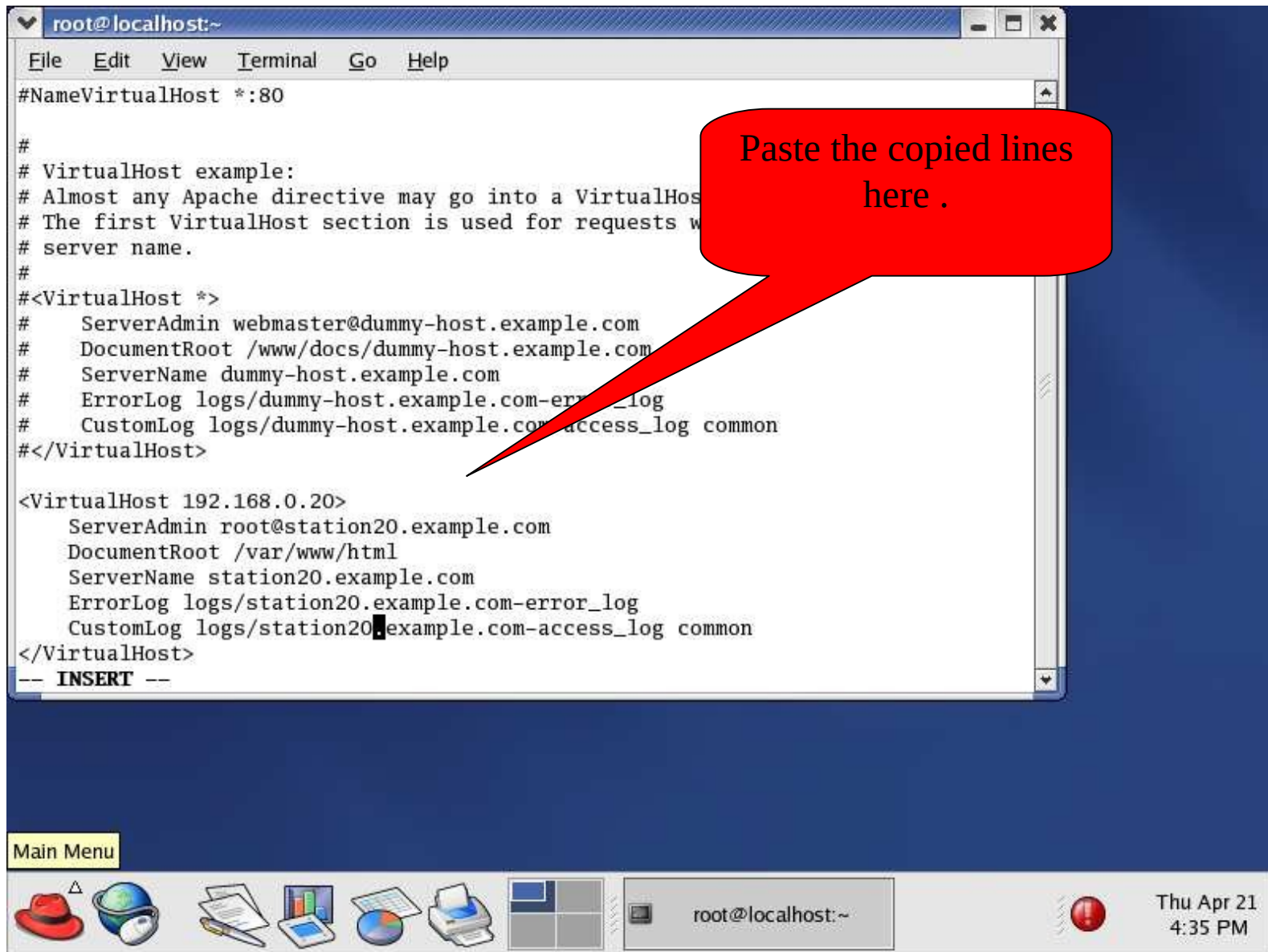
```
root@localhost:~  
File Edit View Terminal Go Help  
# for further details before you try to setup virtual  
#  
# You may use the command line option '-S' to verify  
# configuration.  
#  
# Use name-based virtual hosting.  
#  
#NameVirtualHost *:80  
#  
# VirtualHost example:  
# Almost any Apache directive may go into a VirtualHost container.  
# The first VirtualHost section is used for requests without a known  
# server name.  
#  
#<VirtualHost *>  
#   ServerAdmin webmaster@dummy-host.example.com  
#   DocumentRoot /www/docs/dummy-host.example.com  
#   ServerName dummy-host.example.com  
#   ErrorLog logs/dummy-host.example.com-error_log  
#   CustomLog logs/dummy-host.example.com-access_log common  
#</VirtualHost>
```

This screen show end of
httpd.conf file.

Copy the last seven
lines .

root@localhost:~ Thu Apr 21 4:31 PM

Web server configuration



The image shows a screenshot of a web server configuration editor window. The window has a menu bar with 'File', 'Edit', 'View', 'Terminal', 'Go', and 'Help'. The title bar reads 'root@localhost:~'. The main text area contains Apache configuration directives for VirtualHosts. A red callout bubble with the text 'Paste the copied lines here .' points to the configuration for the second VirtualHost. The configuration includes comments, a commented-out VirtualHost block, and an active VirtualHost block for 192.168.0.20. The status bar at the bottom shows a 'Main Menu' button, a taskbar with various icons, a system tray with a clock showing 'Thu Apr 21 4:35 PM', and a terminal icon with the text 'root@localhost:~'.

```
root@localhost:~
File Edit View Terminal Go Help
#NameVirtualHost *:80
#
# VirtualHost example:
# Almost any Apache directive may go into a VirtualHost section.
# The first VirtualHost section is used for requests without a valid
# server name.
#
#<VirtualHost *>
#   ServerAdmin webmaster@dummy-host.example.com
#   DocumentRoot /www/docs/dummy-host.example.com
#   ServerName dummy-host.example.com
#   ErrorLog logs/dummy-host.example.com-error_log
#   CustomLog logs/dummy-host.example.com-access_log common
#</VirtualHost>
<VirtualHost 192.168.0.20>
    ServerAdmin root@station20.example.com
    DocumentRoot /var/www/html
    ServerName station20.example.com
    ErrorLog logs/station20.example.com-error_log
    CustomLog logs/station20.example.com-access_log common
</VirtualHost>
-- INSERT --
```

Paste the copied lines here .

Main Menu

root@localhost:~ Thu Apr 21 4:35 PM

Web server configuration

The image shows a terminal window with the following configuration text:

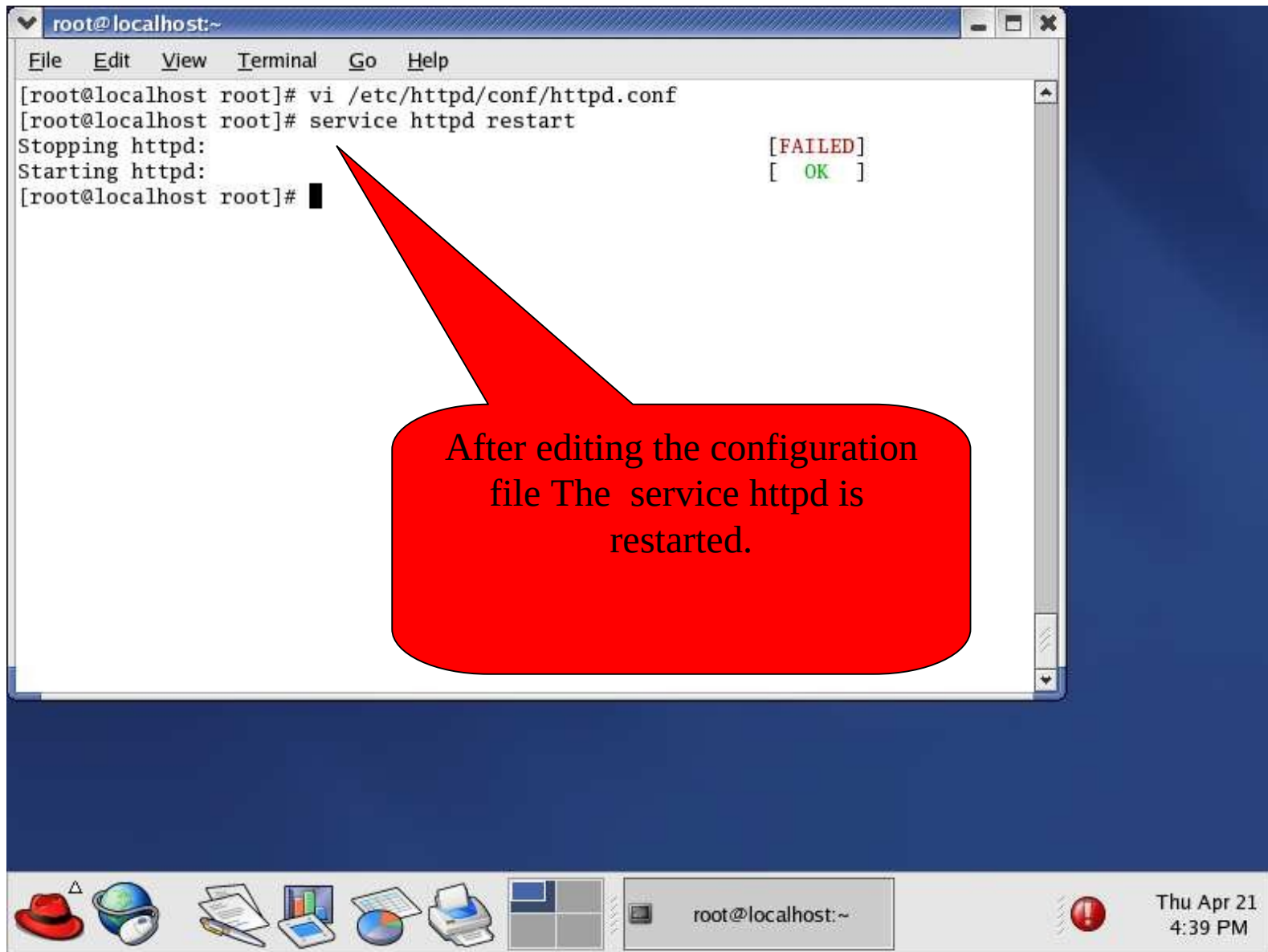
```
root@localhost:~  
File Edit View  
#NameVirtualHost *  
#  
# VirtualHost example  
# Almost any Apache configuration may be placed here.  
# The first VirtualHost section will be "activated" here.  
#  
#<VirtualHost *>  
#   ServerAdmin webmaster@localhost  
#   DocumentRoot /var/www/html  
#   ServerName localhost  
#   ErrorLog logs/localhost.example.com-error_log  
#   CustomLog logs/localhost.example.com-access_log  
#</VirtualHost>  
  
<VirtualHost 192.168.0.20>  
    ServerAdmin root@station20.example.com  
    DocumentRoot /var/www/html  
    ServerName station20.example.com  
    ErrorLog logs/station20.example.com-error_log  
    CustomLog logs/station20.example.com-access_log  
</VirtualHost>  
:wq
```

Five red callout boxes provide instructions for the configuration fields:

- In virtual host field we enter ipaddress or fully qualified domain address** (points to `192.168.0.20`)
- Here specify the e-mail address of the administrator for the web server.** (points to `root@station20.example.com`)
- Here specify the base directory from which html files will be served.** (points to `/var/www/html`)
- Here specify the hostname for your server.** (points to `station20.example.com`)
- Now save and quit the the httpd.conf file.** (points to the `:wq` command)

The terminal window includes a "Main Menu" button and a taskbar at the bottom with various icons and a system clock showing "Thu Apr 21 4:39 PM".

Web server configuration



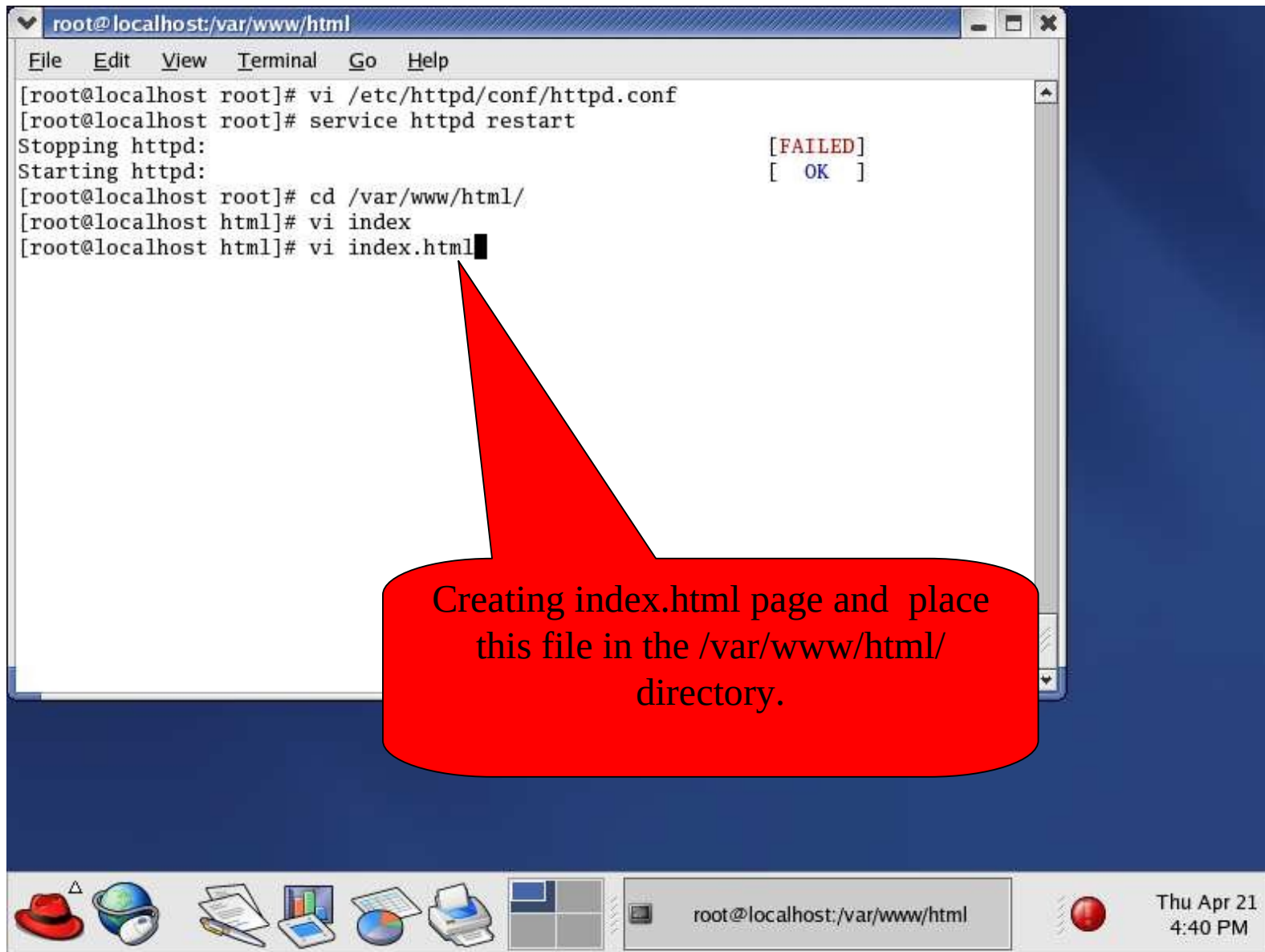
A terminal window titled 'root@localhost:~' with a menu bar (File, Edit, View, Terminal, Go, Help). The terminal shows the following commands and output:

```
[root@localhost root]# vi /etc/httpd/conf/httpd.conf
[root@localhost root]# service httpd restart
Stopping httpd: [FAILED]
Starting httpd: [ OK ]
[root@localhost root]#
```

A red callout bubble points to the 'Starting httpd:' line with the text: 'After editing the configuration file The service httpd is restarted.'

The desktop background is dark blue. The taskbar at the bottom contains icons for a red hat, a globe, a notepad, a laptop, a pie chart, a printer, and a window manager. The system tray shows the user 'root@localhost:~', a red exclamation mark icon, and the date/time 'Thu Apr 21 4:39 PM'.

Web server configuration

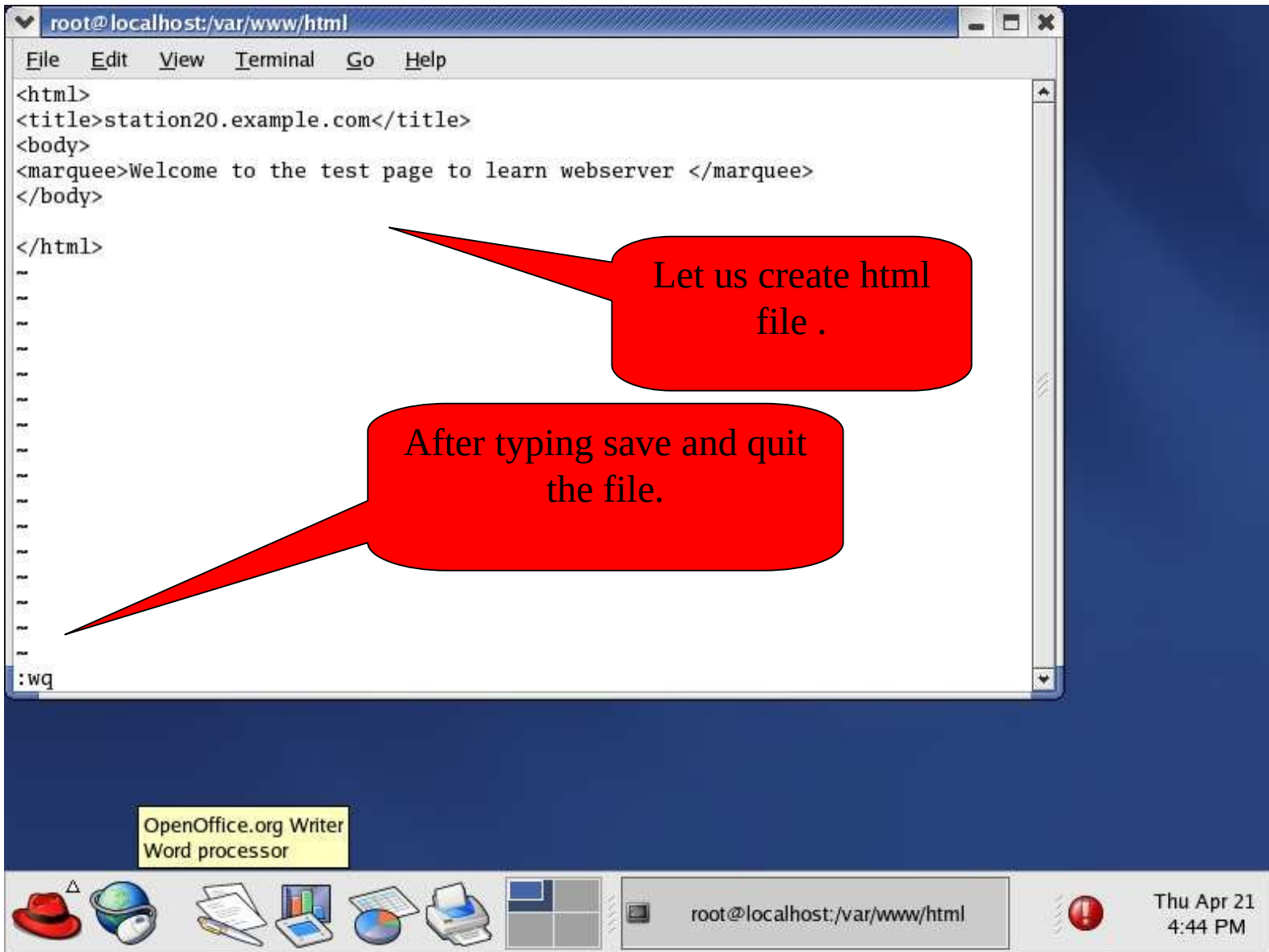


```
root@localhost:/var/www/html
File Edit View Terminal Go Help
[root@localhost root]# vi /etc/httpd/conf/httpd.conf
[root@localhost root]# service httpd restart
Stopping httpd: [FAILED]
Starting httpd: [ OK ]
[root@localhost root]# cd /var/www/html/
[root@localhost html]# vi index
[root@localhost html]# vi index.html
```

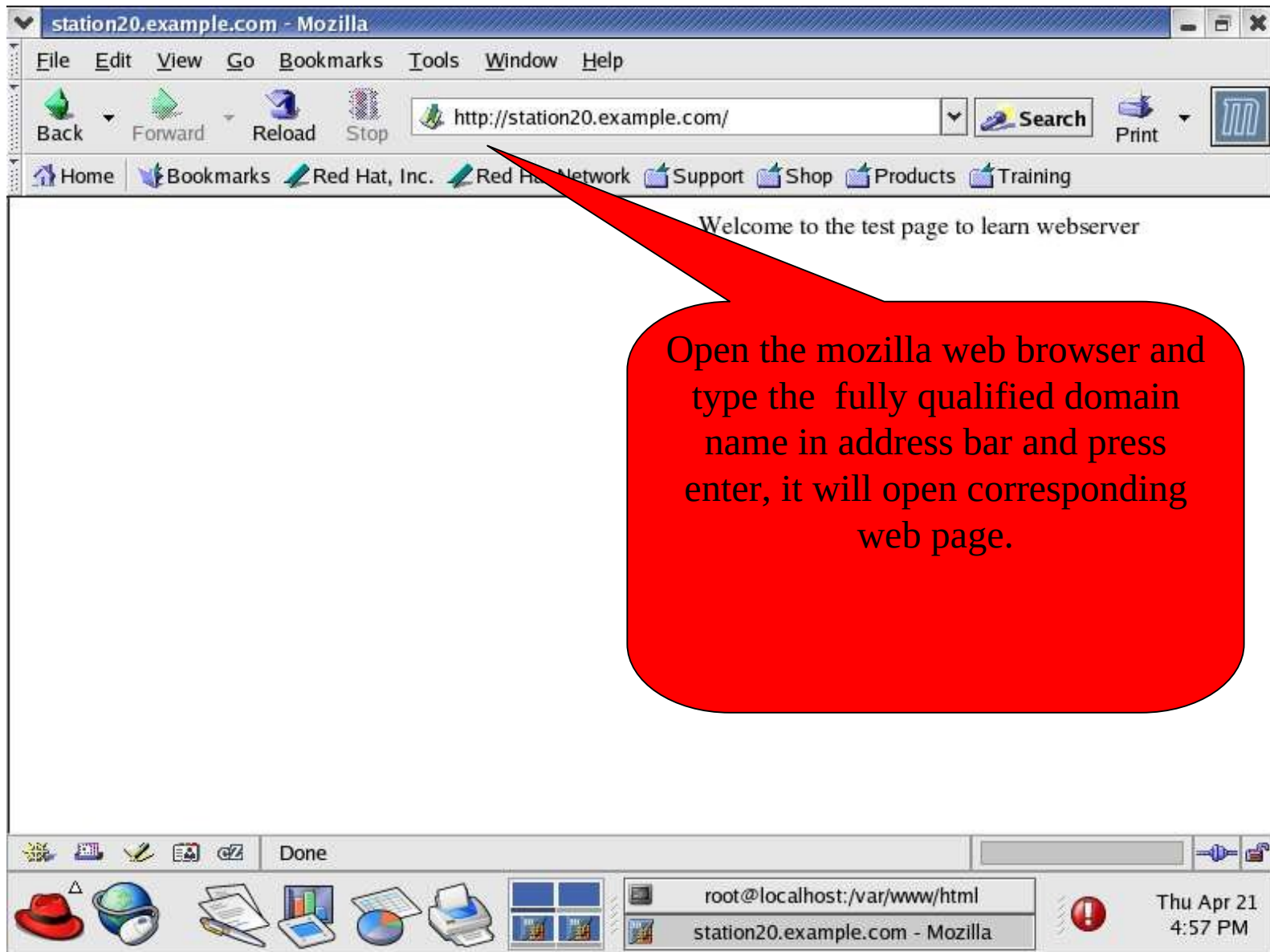
Creating index.html page and place this file in the /var/www/html/ directory.

root@localhost:/var/www/html Thu Apr 21 4:40 PM

Web server configuration



Web server configuration



Thank You