

- 자신의 홈페이지 만들기 및 시스템 설정

1. 목표

- 윈도우 호스트 가상화(또는 Native) 시스템에서 웹서비스 가능하도록 관련된 모든 조치를 한 후에 외부에서 웹브라우저로 접속하여 본인의 이름, 사진이 나오도록 하는 모든 과정을 설명하는 보고서 제출

2. 준비사항

- Windows 7 또는 10이 설치된 컴퓨터, Mem 8G 이상, 디스크 여유공간 50GB 이상
- MacOS를 사용하여도 무방함
- 인터넷이 연결되어 있을 것

3. 수행절차

- 1) Windows에 가상화 시스템 설치 (Vmplayer 또는 VirtualBox) 설치되어 있으며 무시
- 2) 가상화 시스템에 Fedora 32 workstation (다른 리눅스 버전도 무방)
 - 사용자 등록 등 기초적인 설정
- 3) 리눅스에서 web 서비스 가능하도록 httpd 수행
(명령어 존재확인 which, 수행되고 있는 프로세스 확인 "ps -ef | grep httpd")
 - 3.3.1 시스템에 httpd 프로그램이 없으면 내려받아서 설치 (sudo yum 명령사용)
 - 3.3.2 내부 web 브라우저로 리눅스 주소로 접속하여 동작여부 확인
(만일 접속이 안되면 firewall 설정 확인 -없으면 firewall-config 설치)
 - firewall 설정을 바꾸어 가면서 정확한 동작여부 확인하여 보고서 기재
 - 화면에 나온 정보를 바탕으로 해당 html 파일을 찾아서 자신의 정보를 추가
 - 3.3.3 웹 내용 편집 및 확인
- 4) 가상화 시스템 설정에서 윈도우 시스템으로 들어오는 http 서비스(port 80)를 리눅스 시스템으로 포워드 하도록 설정
 - 이 조치가 불가능한 경우, 네트워크 설정에서 NAT-> Bridged로 변경
- 5) 윈도우의 웹브라우저로 자신의 IP로 접속하여 내용 확인
 - 윈도우즈의 방화벽 해제 (또는 선택적으로 http만 해제)
 - 리눅스 방화벽에서 외부 http 서비스가 되도록 설정
(firewall 설정을 바꾸어 가면서 정확한 동작여부 확인하여 보고서에 기재)

4. 제출시 주의사항

- 윈도우 CMD창에서 ipconfig 실행 후 로컬어댑터의 IP주소가 나오게 한 후 브라우저 창을 적당히 겹쳐서 한 화면으로 캡춰한 이미지를 보고서에 포함 시킬 것

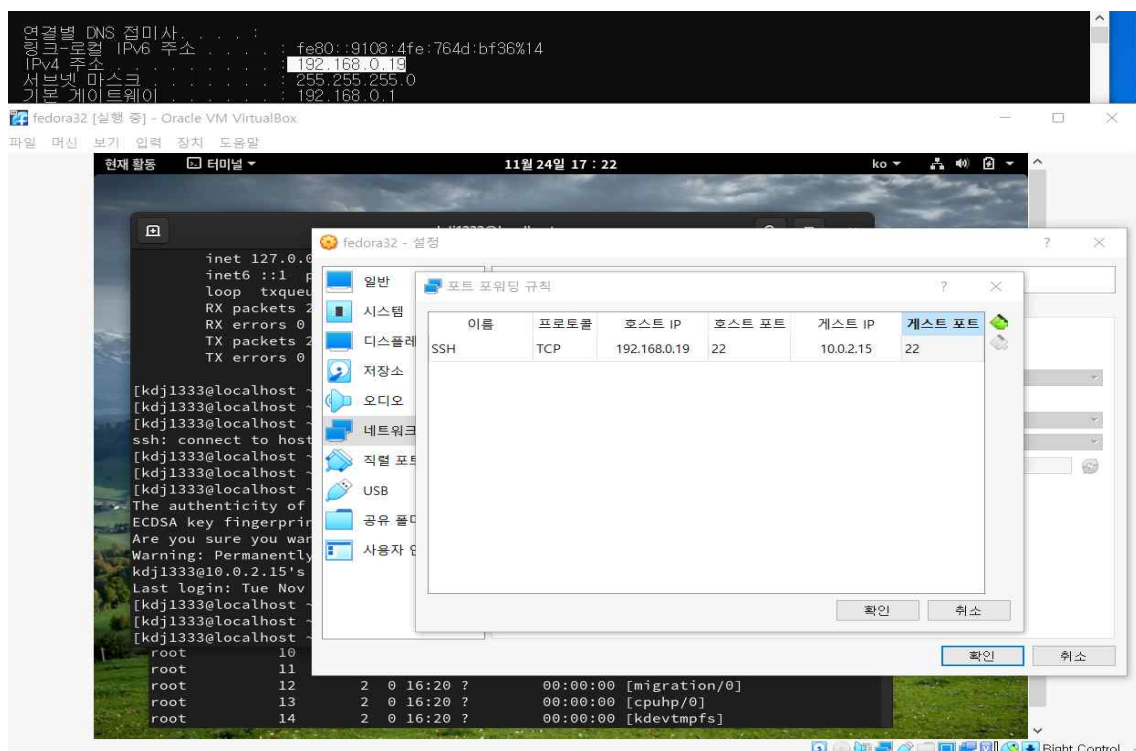
진행순서는 위에서 아래로 가는 방향 순서로 진행했습니다.

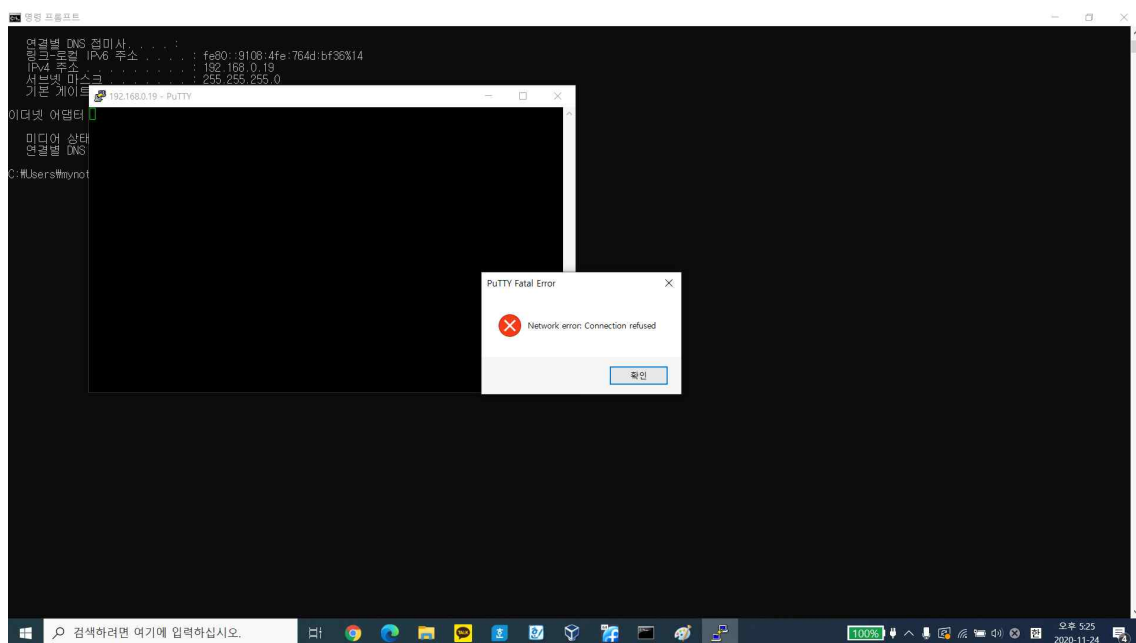
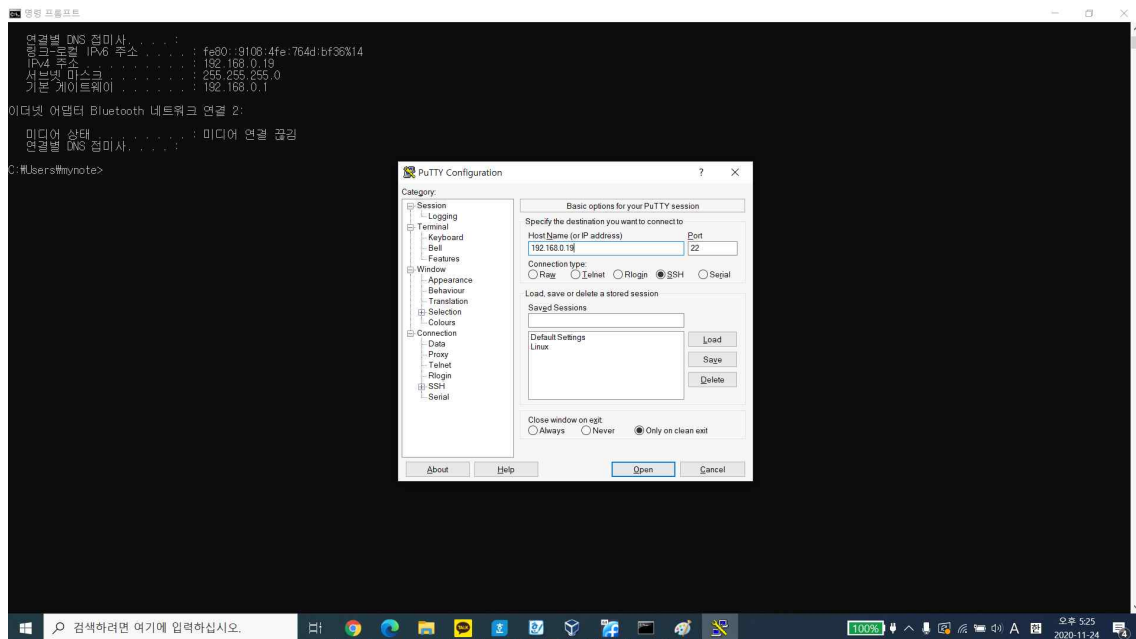
```
fedora32 [실행 중] - Oracle VM VirtualBox
파일  머신  보기  입력  장치  도움말

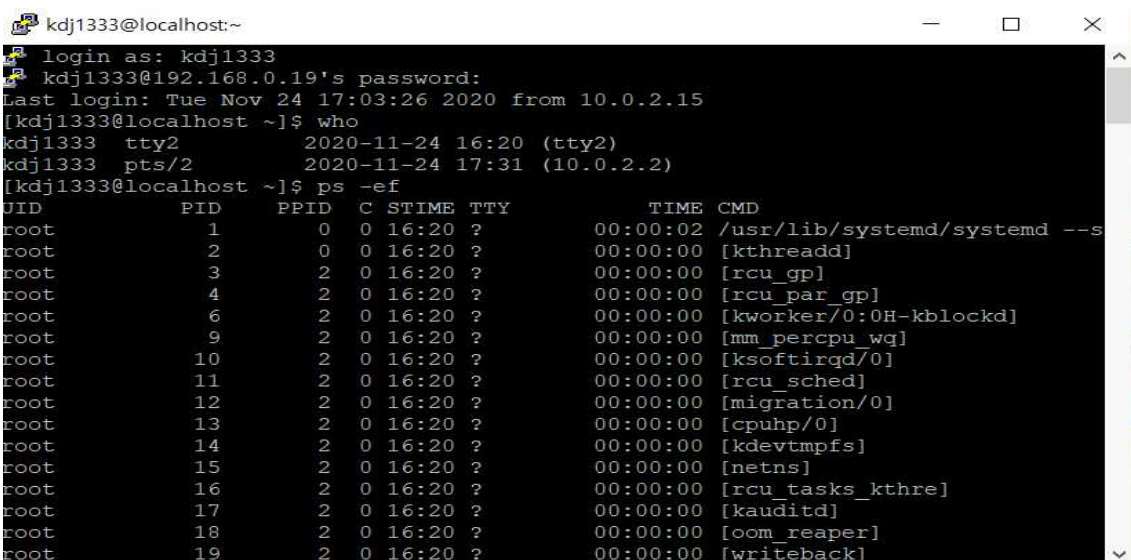
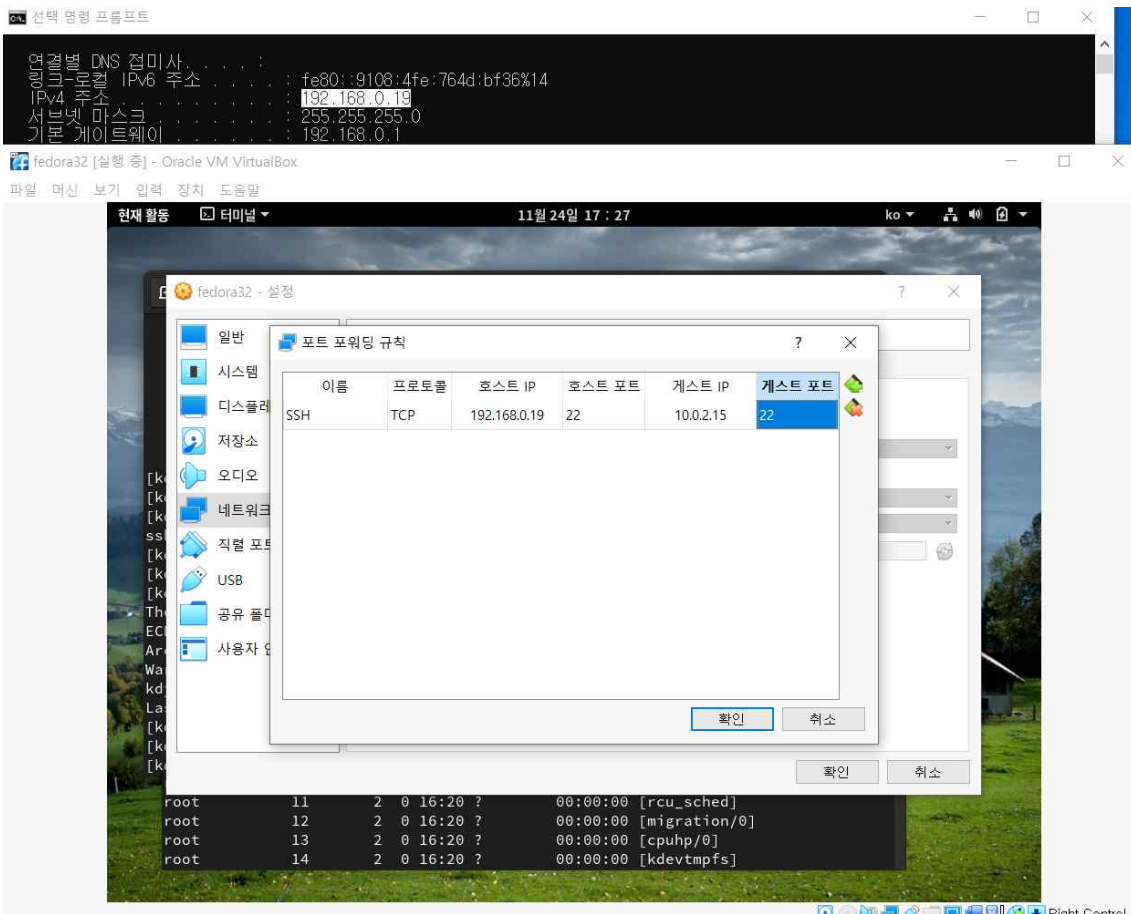
현재 활동  터미널  11월 24일 17 : 45

root@localhost:~

The key fingerprint is:
SHA256:v0AGX4fP1FYDsMDFFhPTdSwvRGa5CFAv7FdDIuC+2BY  kdj1333@localhost.localdomain
The key's randomart image is:
----[RSA 3072]-----+
  +==B*oB=o|
  . oo**B+.+|
  . . *o+o=+
  + o *.oo..|
  E . + .
  = + .
  . = .
  . . .
  .
----[SHA256]-----+
[kdj1333@localhost ~]$
[kdj1333@localhost ~]$ man ssh-keygen
[kdj1333@localhost ~]$ su-
bash: su-: 명령을 찾을 수 없습니다...
[kdj1333@localhost ~]$ su -
암호 :
[root@localhost ~]# ssh-keygen -A
[root@localhost ~]# sshd
sshd re-exec requires execution with an absolute path
[root@localhost ~]#
```







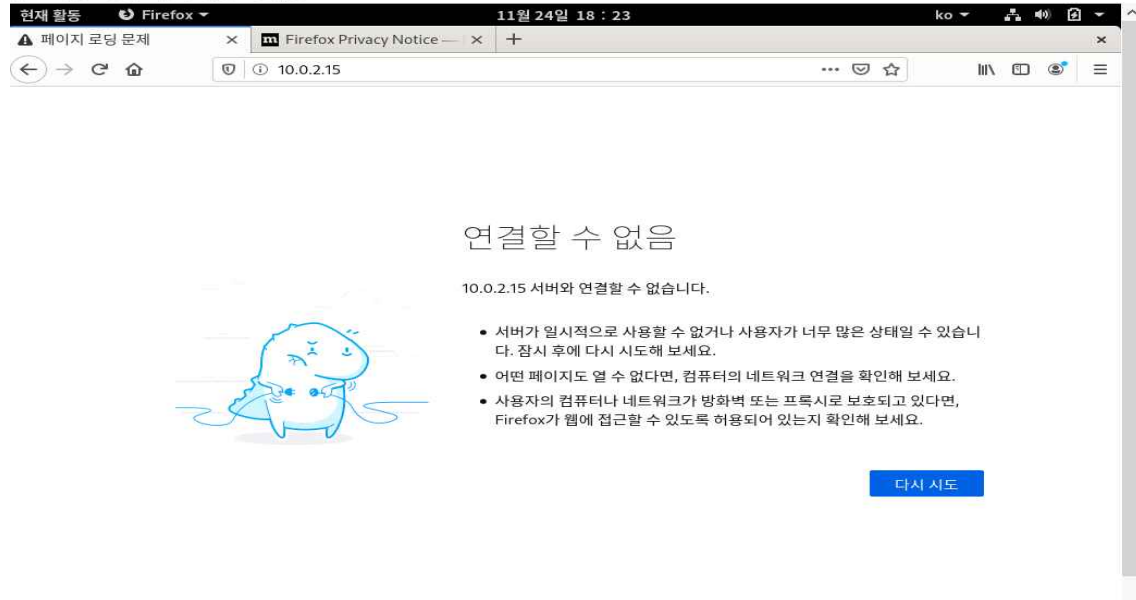
```

kdj1333@localhost:~
[kdj1333@localhost ~]$ ps -ef | grep httpd
kdj1333  4124  3771  0 18:19 pts/0    00:00:00 grep --color=auto httpd
[kdj1333@localhost ~]$ ifconfig
enp0s3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST>  mtu 1500
        inet 10.0.2.15  netmask 255.255.255.0  broadcast 10.0.2.255
        inet6 fe80::b28e:7c25:28d8:f073  prefixlen 64  scopeid 0x20<link>
        ether 08:00:27:f9:4b:de  txqueuelen 1000  (Ethernet)
        RX packets 38842  bytes 40725384 (38.8 MiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 12765  bytes 962543 (939.9 KiB)
        TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING>  mtu 65536
        inet 127.0.0.1  netmask 255.0.0.0
        inet6 ::1  prefixlen 128  scopeid 0x10<host>
        loop txqueuelen 1000  (Local Loopback)
        RX packets 163  bytes 18929 (18.4 KiB)
        RX errors 0  dropped 0  overruns 0  frame 0
        TX packets 163  bytes 18929 (18.4 KiB)
        TX errors 0  dropped 0  overruns 0  carrier 0  collisions 0

[kdj1333@localhost ~]$

```



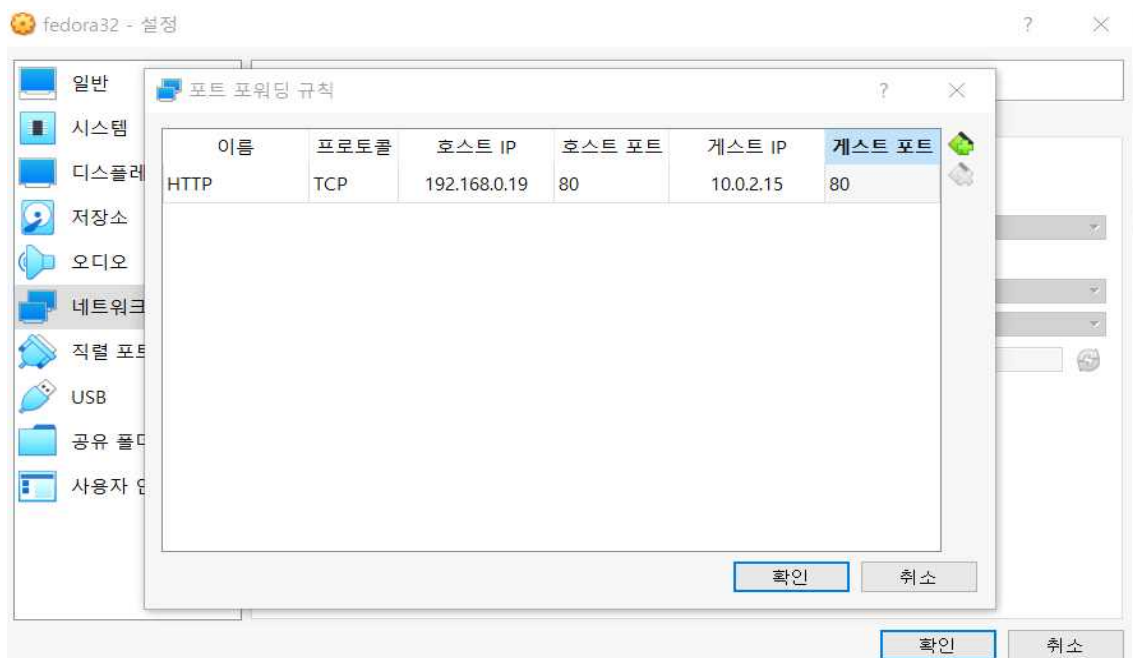
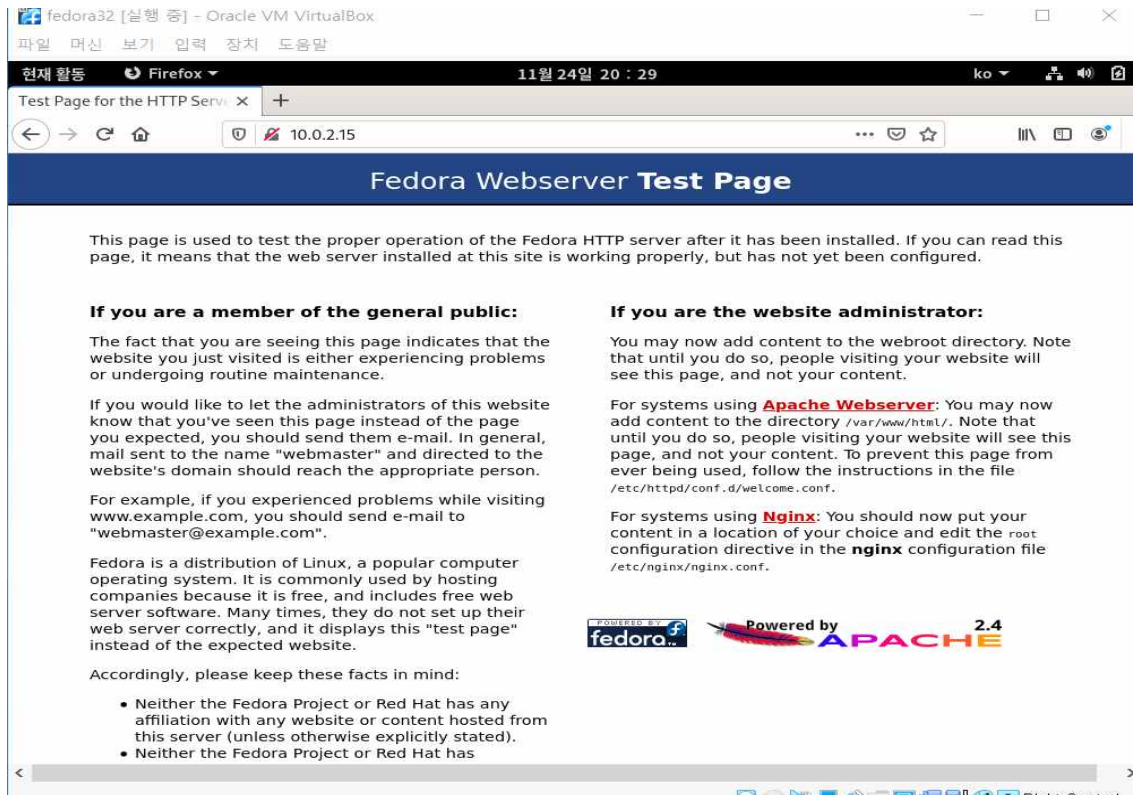
```

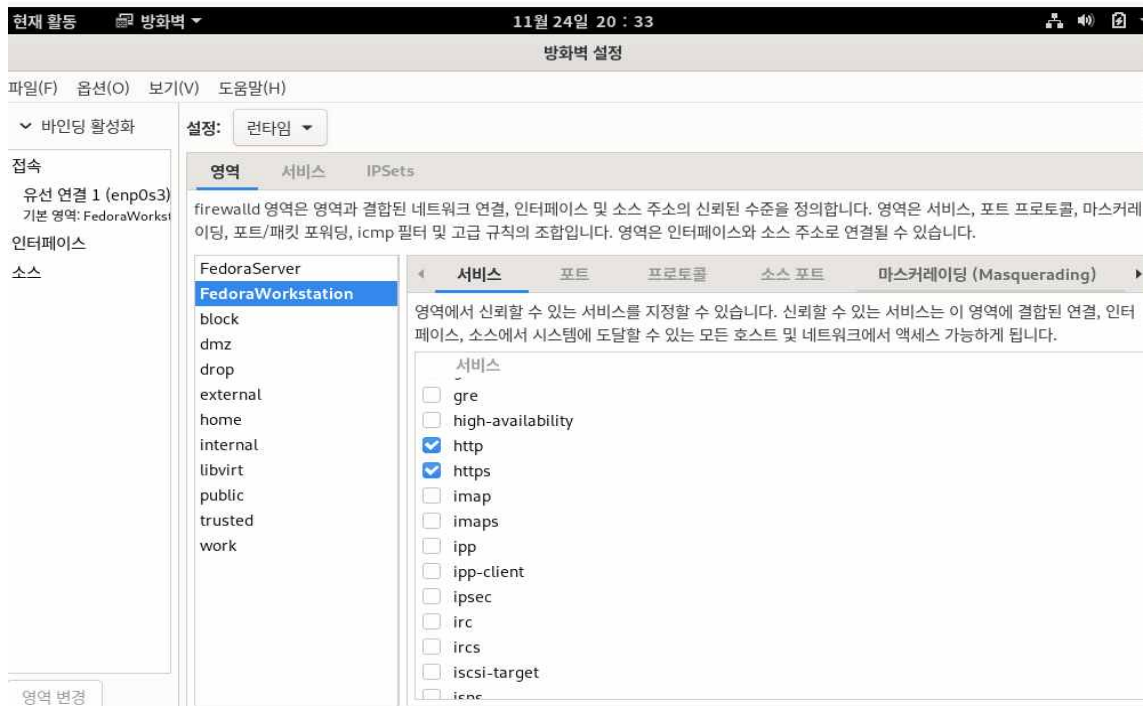
[kdj1333@localhost ~]$ ps -ef | less
[kdj1333@localhost ~]$ which httpd
/usr/sbin/httpd
[kdj1333@localhost ~]$ httpd
AH00558: httpd: Could not reliably determine the server's fully qualified domain name, using
localhost.localdomain. Set the 'ServerName' directive globally to suppress this message
(13)Permission denied: AH00058: Error retrieving pid file run/httpd.pid
AH00059: Remove it before continuing if it is corrupted.
[kdj1333@localhost ~]$ su
암호:
[root@localhost kdj1333]# httpd
AH00558: httpd: Could not reliably determine the server's fully qualified domain name, using
localhost.localdomain. Set the 'ServerName' directive globally to suppress this message
[root@localhost kdj1333]# ps -ef

```



```
root      4528      4518      0 18:27 pts/0    00:00:00 bash
root      4556      1019      0 18:28 ?          00:00:00 httpd
apache    4560      4556      0 18:28 ?          00:00:00 httpd
apache    4562      4556      0 18:28 ?          00:00:00 httpd
apache    4564      4556      0 18:28 ?          00:00:00 httpd
apache    4565      4556      0 18:28 ?          00:00:00 httpd
root      4783        2      0 18:28 ?          00:00:00 [kworker/0:5-cgroup_destroy]
root      4784      4526      0 18:28 pts/0    00:00:00 ps -ef
[root@localhost kdj1333]#
```





This page is used to test the proper operation of the Fedora HTTP server after it has been installed. If you can read this page, it means that the web server installed at this site is working properly, but has not yet been configured.

If you are a member of the general public:

The fact that you are seeing this page indicates that the website you just visited is either experiencing problems or undergoing routine maintenance.

If you would like to let the administrators of this website know that you've seen this page instead of the page you expected, you should send them e-mail. In general, mail sent to the name "webmaster" and directed to the website's domain should reach the appropriate person.

For example, if you experienced problems while visiting www.example.com, you should send e-mail to "webmaster@example.com".

Fedora is a distribution of Linux, a popular computer operating system. It is commonly used by hosting companies because it is free, and includes free web server software. Many times, they do not set up their web server correctly, and it displays this "test page" instead of the expected website.

Accordingly, please keep these facts in mind:

- Neither the Fedora Project or Red Hat has any affiliation with any website or content hosted from this server (unless otherwise explicitly stated).
- Neither the Fedora Project or Red Hat has "hacked" this webserver; this test page is an included component of the Fedora webserver software.

For more information about Fedora, please visit the [Fedora Project website](http://www.fedoraproject.org).

If you are the website administrator:

You may now add content to the webroot directory. Note that until you do so, people visiting your website will see this page, and not your content.

For systems using **Apache Webserver**: You may now add content to the directory `/var/www/html/`. Note that until you do so, people visiting your website will see this page, and not your content. To prevent this page from ever being used, follow the instructions in the file `/etc/httpd/conf.d/welcome.conf`.

For systems using **Nginx**: You should now put your content in a location of your choice and edit the `root` configuration directive in the **nginx** configuration file `/etc/nginx/nginx.conf`.



저는 호스트포트를 10000으로 바꾸지 않고 방화벽을 해제하지 않아도 페도라 워크스테이션만 http https만 클릭해줘도 ipv4주소로 페도라 테스트페이지 홈페이지 연결이 되었습니다.


```
kdj1333@localhost ~]$ cd /etc/httpd
kdj1333@localhost httpd]$ ls
conf  conf.d  conf.modules.d  logs  modules  run  state
kdj1333@localhost httpd]$ cd conf.d
kdj1333@localhost conf.d]$ vi welcome.conf
```

```

# This configuration file enables the default "Welcome" page if there
# is no default index page present for the root URL. To disable the
# Welcome page, comment out all the lines below.
#
# NOTE: if this file is removed, it will be restored on upgrades.
#
<LocationMatch "^/+$">
    Options -Indexes
    ErrorDocument 403 /.noindex.html
</LocationMatch>

<Directory /usr/share/httpd/noindex>
    AllowOverride None
    Require all granted
</Directory>

Alias /.noindex.html /usr/share/httpd/noindex/index.html
Alias /poweredby.png /usr/share/httpd/icons/apache_pb2.png

"welcome.conf" [readonly] 19L, 575C

```

```
[kdj1333@localhost conf.d]$ cd /usr/share/httpd
[kdj1333@localhost httpd]$ ls
error icons noindex server-status
[kdj1333@localhost httpd]$ cd noindex
[kdj1333@localhost noindex]$ ls
index.html
[kdj1333@localhost noindex]$ ls -l
합계 0
lrwxrwxrwx. 1 root root 32 4월 1 2020 index.html -> ../../fedora-testpage/index.html
[kdj1333@localhost noindex]$
```

```
[kdj1333@localhost noindex]$ cd ../../fedora-testpage
[kdj1333@localhost fedora-testpage]$ ls
index.html
[kdj1333@localhost fedora-testpage]$ ls -l
합계 8
-rw-r--r--. 1 root root 5564  1월 29  2020 index.html
[kdj1333@localhost fedora-testpage]$ less index.html
```

```
kdj1333@localhost:usr/share/fedora-testpage — less index.html
<!DOCTYPE html PUBLIC "-//W3C//DTD XHTML 1.0 Strict//EN"
"http://www.w3.org/TR/xhtml1/DTD/xhtml1-strict.dtd">

<html xmlns="http://www.w3.org/1999/xhtml" xml:lang="en" lang="en">
<head>
  <title>Test Page for the HTTP Server on Fedora</title>
  <meta http-equiv="Content-Type" content="text/html; charset=us-ascii" />
  <style type="text/css">
    /**]
    body {
      background-color: #fff;
      color: #000;
      font-size: 0.9em;
      font-family: sans-serif,helvetica;
      margin: 0;
      padding: 0;
    }
    :link {
      color: #c00;
    }
    :visited {
      color: #c00;
    }
  ]]]&gt;
index.html</pre></div><div data-bbox="139 566 567 593" data-label="Text"><pre>root@localhost fedora-testpage]#
root@localhost fedora-testpage]# sudo vi index.html</pre></div><div data-bbox="139 615 743 771" data-label="Code-Block"><pre>&lt;body&gt;
&lt;h1&gt;Fedora Webserver &lt;strong&gt;20161267 DongJun Kim Test Page&lt;/strong&gt;&lt;/h1&gt;

&lt;div class="content"&gt;
  &lt;div class="content-middle"&gt;
    &lt;p&gt;This page is used to test the proper operation of the
    Fedora HTTP server after it has been installed. If you can
    read this page, it means that the web server installed at
    this site is working properly, but has not yet been
    configured.&lt;/p&gt;
  &lt;/div&gt;
&lt;/div&gt;
&lt;hr /&gt;</pre></div>
```

```
kdj1333@localhost:/usr/share/fedora-testpage — sudo vi index.html

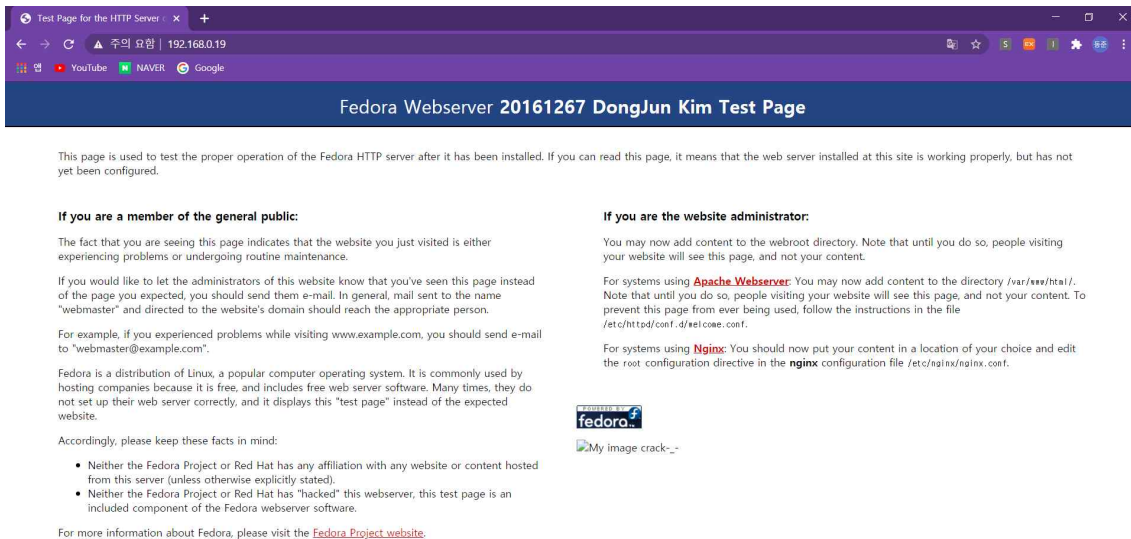
in the <strong>nginx</strong> configuration file
<code>/etc/nginx/nginx.conf</code>.</p>
</div>

<div class="logos">
  <a href="https://getfedora.org/"><img src = "/icons/poweredby.png" alt="[
Powered by Fedora ]" /></a> <!-- Fedora -->

</div>
</div>
</body>
</html>

<!doctype html>
<html lang="ko">
<head>
<meta charset="utf-8">
<title>HTML</title>
</head>
<body>

</body>
</html>
```



무엇이 잘못된 것인지 이미지 경로를 설정하고 이미지를 첨부하여도 계속 사진이 깨졌습니다.

다른 사진으로도 이미 경로를 설정하고 이미지를 첨부하여도 계속 사진이 깨진 이미지로 나왔습니다.

추후 수정해서 개선예정입니다.