

1、Apache 安装

安裝 Apache 使用以下命令安裝 Apache2 Web 伺服器:

```
sudo apt install apache2
```

A terminal window titled "Activities" and "Terminal" showing the installation of Apache2 on Ubuntu 22.04.2 LTS. The terminal output is as follows:

```
root@B22040501: ~  
Unpacking libapr1:amd64 (1.7.0-8ubuntu0.22.04.2) ...  
Selecting previously unselected package libaprutil1:amd64.  
Preparing to unpack .../1-libaprutil1_1.6.1-5ubuntu4.22.04.2_amd64.deb ...  
Unpacking libaprutil1:amd64 (1.6.1-5ubuntu4.22.04.2) ...  
Selecting previously unselected package libaprutil1-dbd-sqlite3:amd64.  
Preparing to unpack .../2-libaprutil1-dbd-sqlite3_1.6.1-5ubuntu4.22.04.2_amd64.deb ...  
Unpacking libaprutil1-dbd-sqlite3:amd64 (1.6.1-5ubuntu4.22.04.2) ...  
Selecting previously unselected package libaprutil1-ldap:amd64.  
Preparing to unpack .../3-libaprutil1-ldap_1.6.1-5ubuntu4.22.04.2_amd64.deb ...  
Unpacking libaprutil1-ldap:amd64 (1.6.1-5ubuntu4.22.04.2) ...  
Selecting previously unselected package apache2-bin.  
Preparing to unpack .../4-apache2-bin_2.4.52-1ubuntu4.12_amd64.deb ...  
Unpacking apache2-bin (2.4.52-1ubuntu4.12) ...  
Selecting previously unselected package apache2-data.  
Preparing to unpack .../5-apache2-data_2.4.52-1ubuntu4.12_all.deb ...  
Unpacking apache2-data (2.4.52-1ubuntu4.12) ...  
Selecting previously unselected package apache2-utils.  
Preparing to unpack .../6-apache2-utils_2.4.52-1ubuntu4.12_amd64.deb ...  
Unpacking apache2-utils (2.4.52-1ubuntu4.12) ...  
Selecting previously unselected package apache2.  
Preparing to unpack .../7-apache2_2.4.52-1ubuntu4.12_amd64.deb ...  
Unpacking apache2 (2.4.52-1ubuntu4.12) ...  
Setting up libapr1:amd64 (1.7.0-8ubuntu0.22.04.2) ...  
Setting up apache2-data (2.4.52-1ubuntu4.12) ...  
Setting up libaprutil1:amd64 (1.6.1-5ubuntu4.22.04.2) ...  
Setting up libaprutil1-ldap:amd64 (1.6.1-5ubuntu4.22.04.2) ...  
Setting up libaprutil1-dbd-sqlite3:amd64 (1.6.1-5ubuntu4.22.04.2) ...  
Setting up apache2-utils (2.4.52-1ubuntu4.12) ...  
Setting up apache2-bin (2.4.52-1ubuntu4.12) ...  
Setting up apache2 (2.4.52-1ubuntu4.12) ...  
Enabling module mpm_event.  
Enabling module authz_core.  
Enabling module authz_host.  
Enabling module authn_core.  
Enabling module auth_basic.  
Enabling module access_compat.  
Enabling module authn_file.  
Enabling module authz_user.  
Enabling module alias.  
Enabling module dir.  
Enabling module autoindex.  
Enabling module env.  
Enabling module mime.  
Enabling module negotiation.  
Enabling module ssl.  
Enabling module filter.  
Enabling module deflate.  
Enabling module status.  
Enabling module reqtimeout.  
Enabling conf charset.  
Enabling conf localized-error-pages.  
Enabling conf other-vhosts-access-log.  
Enabling conf security.  
Enabling conf serve-cgi-bin.  
Enabling site 000-default.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache2.service → /lib/systemd/system/apache2.service.  
Created symlink /etc/systemd/system/multi-user.target.wants/apache-htcacheclean.service → /lib/systemd/system/apache-htcacheclean.service.  
Processing triggers for ufw (0.36-1-4ubuntu1) ...  
Processing triggers for man-db (2.10.2-1) ...  
Processing triggers for libc-bin (2.35-0ubuntu3.1) ...  
root@B22040501:~#
```

2、启动 Apache 服务 Apache 安装完毕后，会自动启动。但你可以手动检查和启动 Apache 服务：

```
sudo systemctl start apache2
```

systemctl start apache2 会启动 Apache 服务

检查 Apache 服务状态 使用以下命令来检查 Apache 服务是否运行正常:

```
sudo systemctl status apache2
```

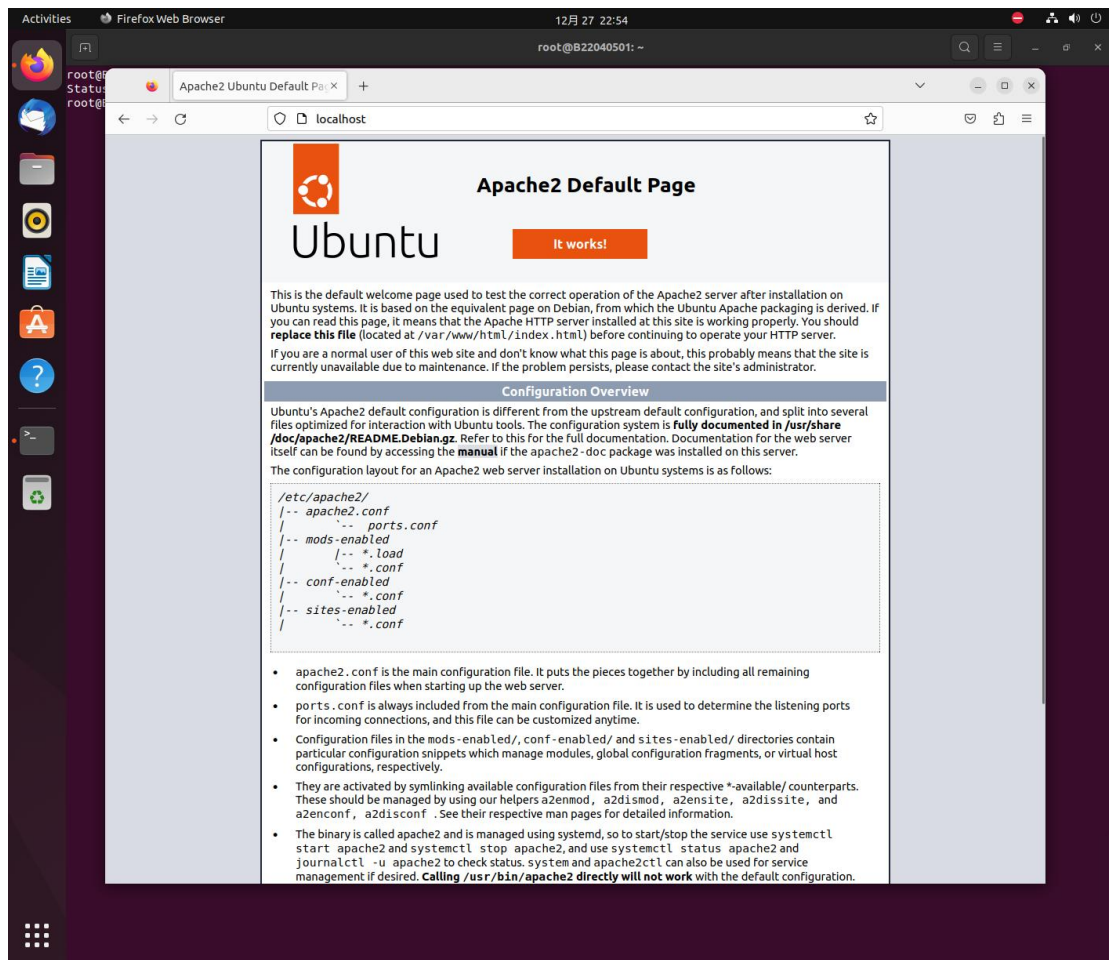
```
Activities Terminal 12月 27 22:52
root@B22040501: ~
root@B22040501:~# sudo systemctl start apache2
systemctl start apache2
root@B22040501:~# sudo systemctl status apache2
● apache2.service - The Apache HTTP Server
   Loaded: loaded (/lib/systemd/system/apache2.service; enabled; vendor preset: enabled)
   Active: active (running) since Fri 2024-12-27 22:52:04 CST; 23s ago
     Docs: https://httpd.apache.org/docs/2.4/
    Main PID: 3579 (apache2)
      Tasks: 55 (limit: 4575)
    Memory: 5.2M
       CPU: 36ms
    CGroup: /system.slice/apache2.service
            └─ 3579 /usr/sbin/apache2 -k start
               3581 /usr/sbin/apache2 -k start
               3582 /usr/sbin/apache2 -k start

12月 27 22:52:04 B22040501 systemd[1]: Starting The Apache HTTP Server...
12月 27 22:52:04 B22040501 apachectl[3578]: AH00558: apache2: Could not reliably determine the server's fully qualified domain name, using 2408:82
12月 27 22:52:04 B22040501 systemd[1]: Started The Apache HTTP Server.
lines 1-16/16 (END)
```

3、查看防火墙状态，防火墙没有启动

```
Activities Terminal 12月 27 22:53
root@B22040501: ~
root@B22040501:~# sudo ufw status
Status: inactive
root@B22040501:~#
```

4、查看 apache 页面



5、配置 Apache 虚拟主机

```
sudo mkdir /var/www/mywebsite
```

```
sudo vim /etc/apache2/sites-available/mywebsite.conf
```

```
<VirtualHost *:80>
```

```
    ServerAdmin B22040501@njupt.edu.cn
```

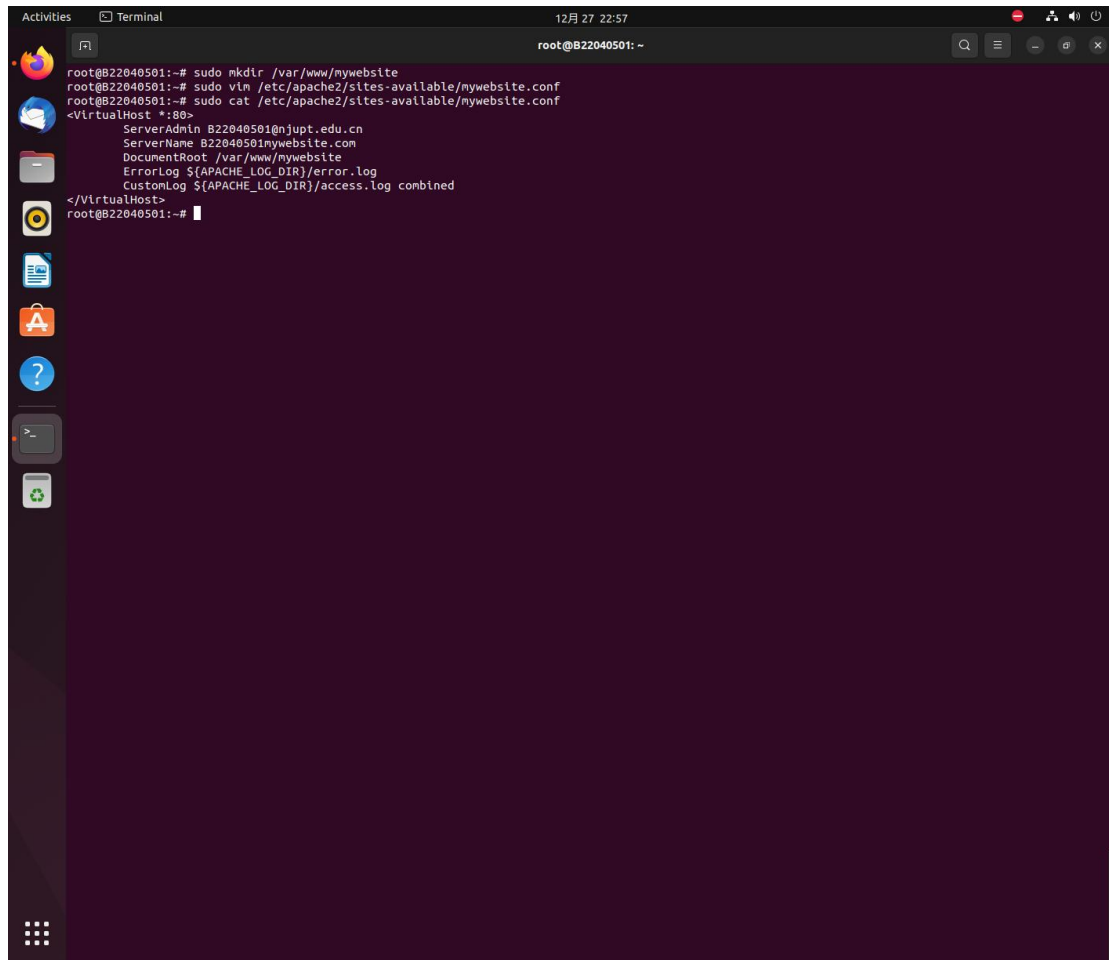
```
    ServerName B22040501mywebsite.com
```

```
    DocumentRoot /var/www/mywebsite
```

```
    ErrorLog ${APACHE_LOG_DIR}/error.log
```

```
    CustomLog ${APACHE_LOG_DIR}/access.log combined
```

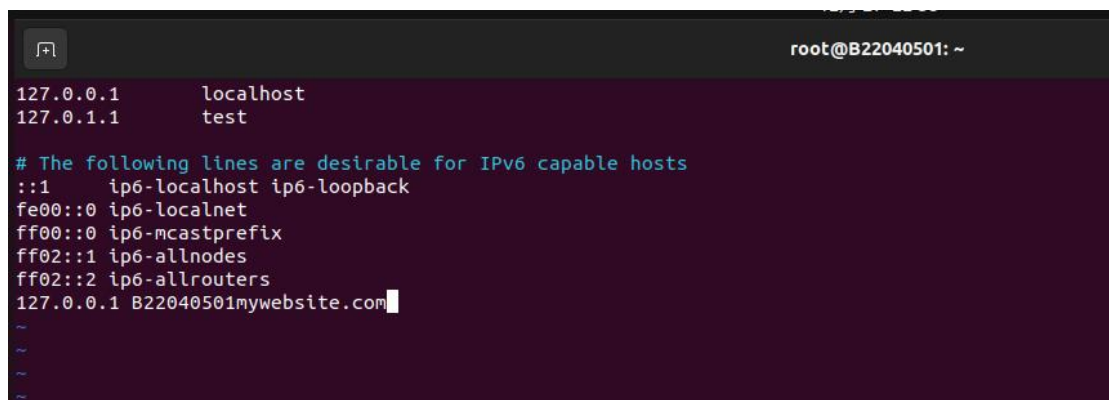
```
</VirtualHost>
```



```
Activities Terminal 12月 27 22:57 root@B22040501: ~
root@B22040501:~# sudo mkdir /var/www/mywebsite
root@B22040501:~# sudo vim /etc/apache2/sites-available/mywebsite.conf
root@B22040501:~# sudo cat /etc/apache2/sites-available/mywebsite.conf
<VirtualHost *:80>
    ServerAdmin B22040501@njupt.edu.cn
    ServerName B22040501mywebsite.com
    DocumentRoot /var/www/mywebsite
    ErrorLog ${APACHE_LOG_DIR}/error.log
    CustomLog ${APACHE_LOG_DIR}/access.log combined
</VirtualHost>
root@B22040501:~#
```

6、编辑 hosts 文件

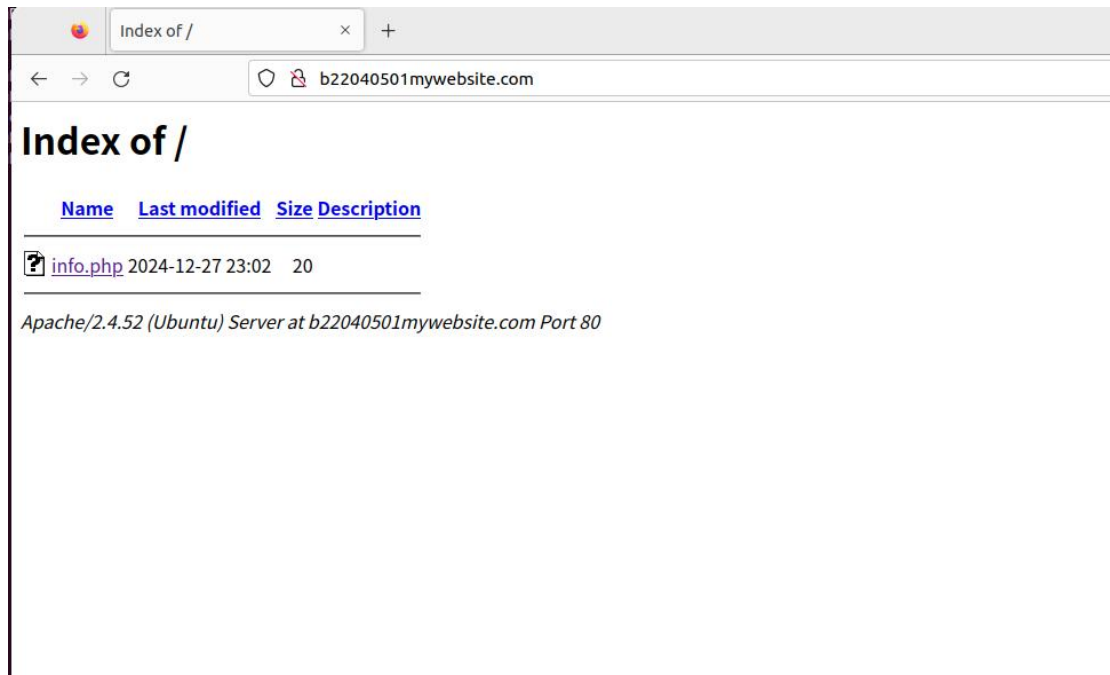
sudo vim /etc/hosts



```
root@B22040501: ~
127.0.0.1 localhost
127.0.1.1 test

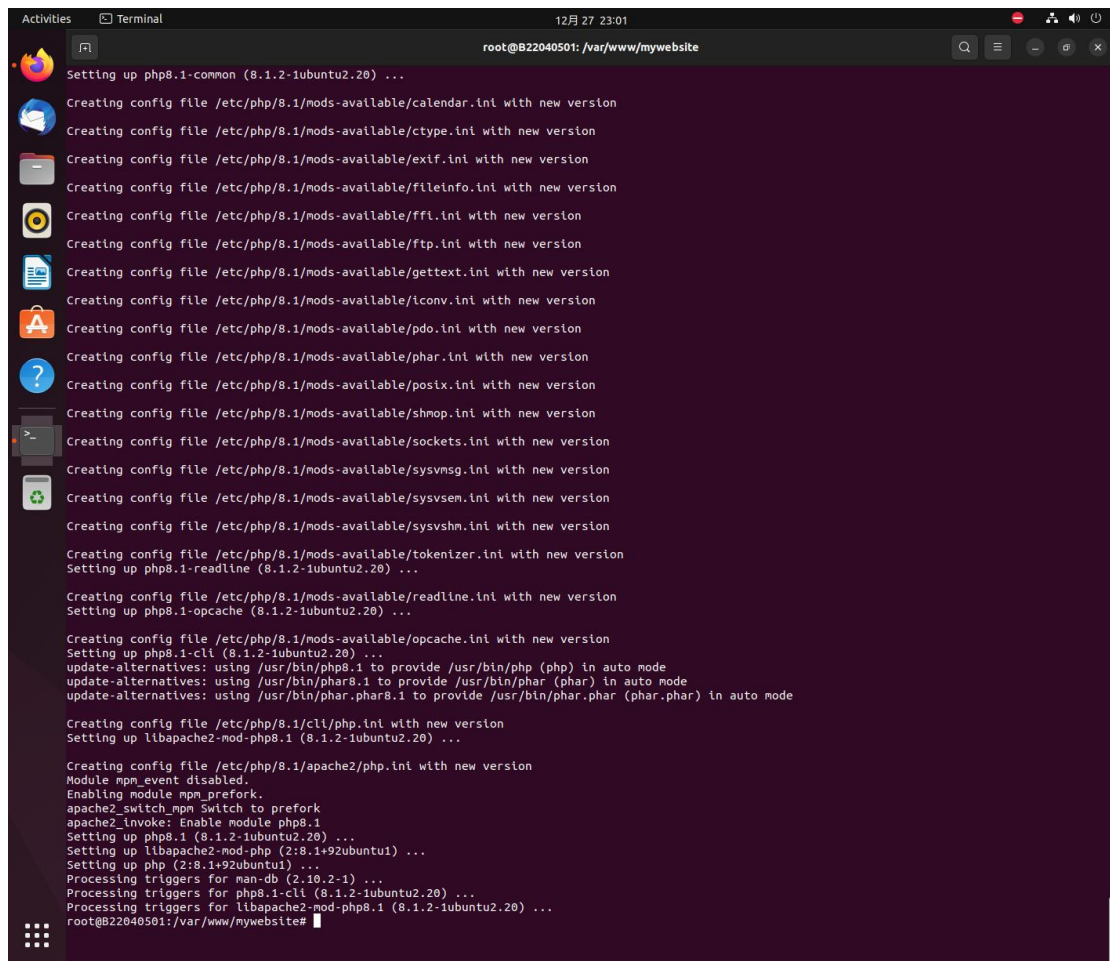
# The following lines are desirable for IPv6 capable hosts
::1 ip6-localhost ip6-loopback
fe00::0 ip6-localnet
ff00::0 ip6-mcastprefix
ff02::1 ip6-allnodes
ff02::2 ip6-allrouters
127.0.0.1 B22040501mywebsite.com
```

7、测试新的虚拟主机



8、安装 php

`sudo apt install php libapache2-mod-php`



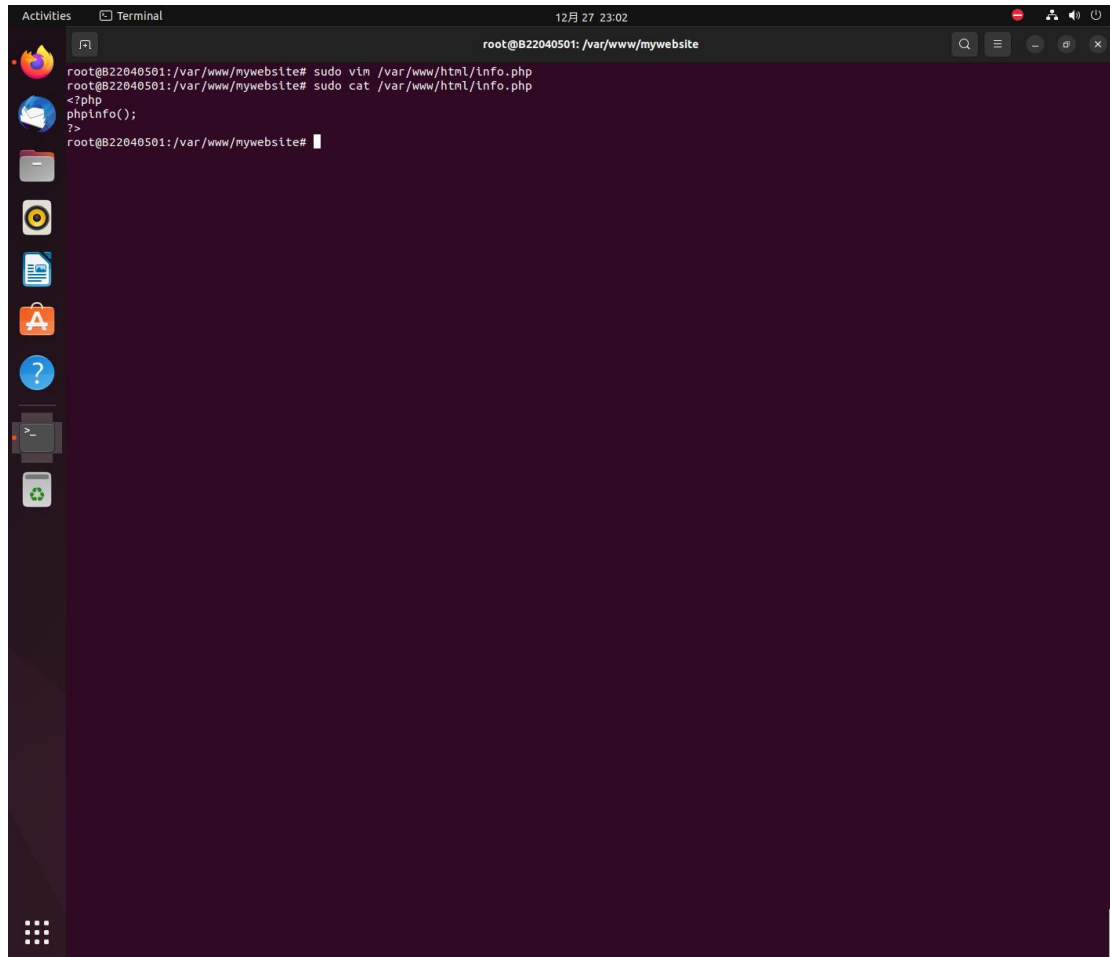
```
sudo vim /var/www/html/info.php
```

在文件中输入以下内容：

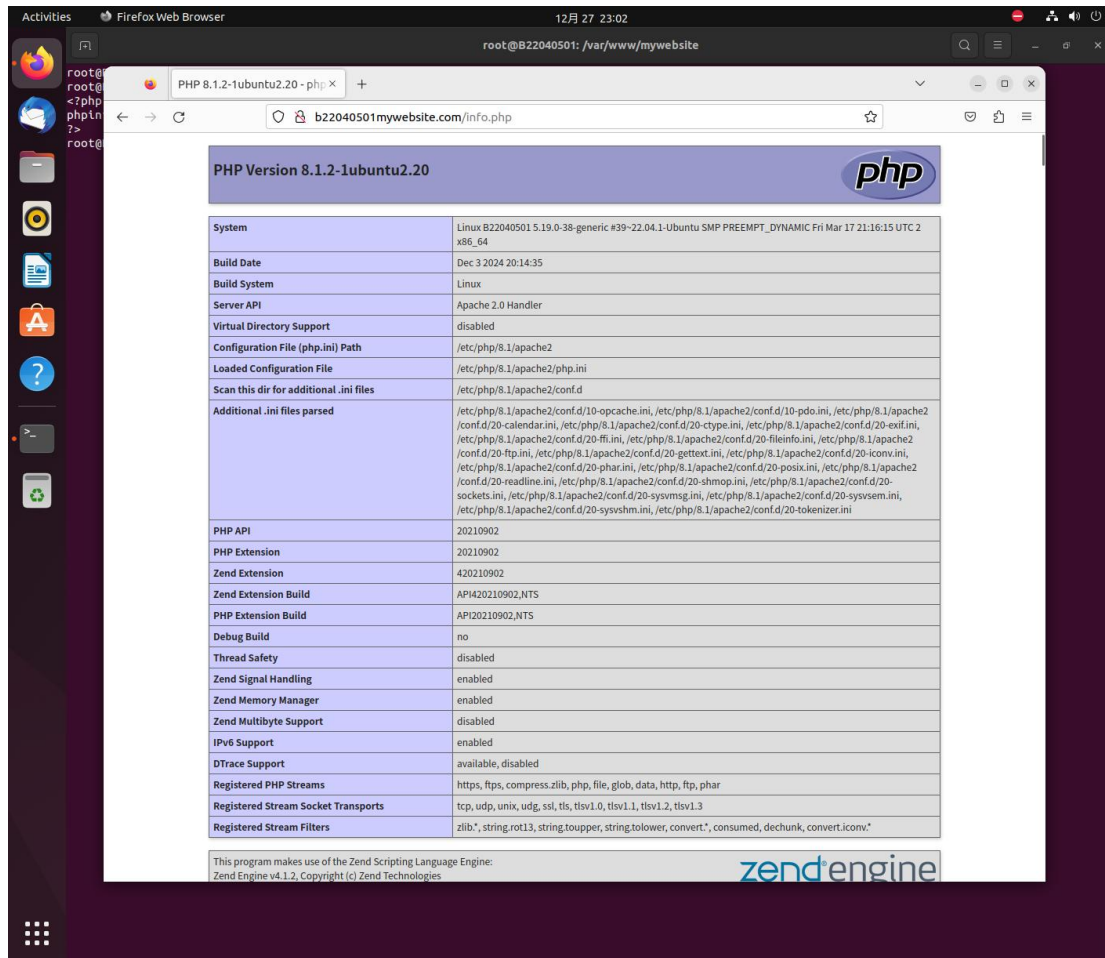
```
<?php
```

```
phpinfo();
```

```
?>
```

A terminal window titled 'Terminal' with a dark background and light text. The window shows a series of commands and their outputs. The first command is 'sudo vim /var/www/html/info.php', which is followed by a prompt for the password. The second command is 'sudo cat /var/www/html/info.php', which outputs the contents of the file: '<?php', 'phpinfo();', and '?>'. The terminal window is part of a desktop environment with a sidebar on the left containing various application icons like a web browser, file manager, and terminal. The top of the window shows the system clock as '12月 27 23:02' and the user's location as 'root@B22040501: /var/www/mywebsite'.

```
root@B22040501: /var/www/mywebsite# sudo vim /var/www/html/info.php
root@B22040501: /var/www/mywebsite# sudo cat /var/www/html/info.php
<?php
phpinfo();
?>
root@B22040501: /var/www/mywebsite#
```



9、创建一个网页

```
<!DOCTYPE html>
```

```
<html>
```

```
<head>
```

```
    <title>apache</title>
```

```
</head>
```

```
<body>
```

```
    <h1>B22040501 web web apache</h1>
```

```
</body>
```

```
</html>
```

访问网页

