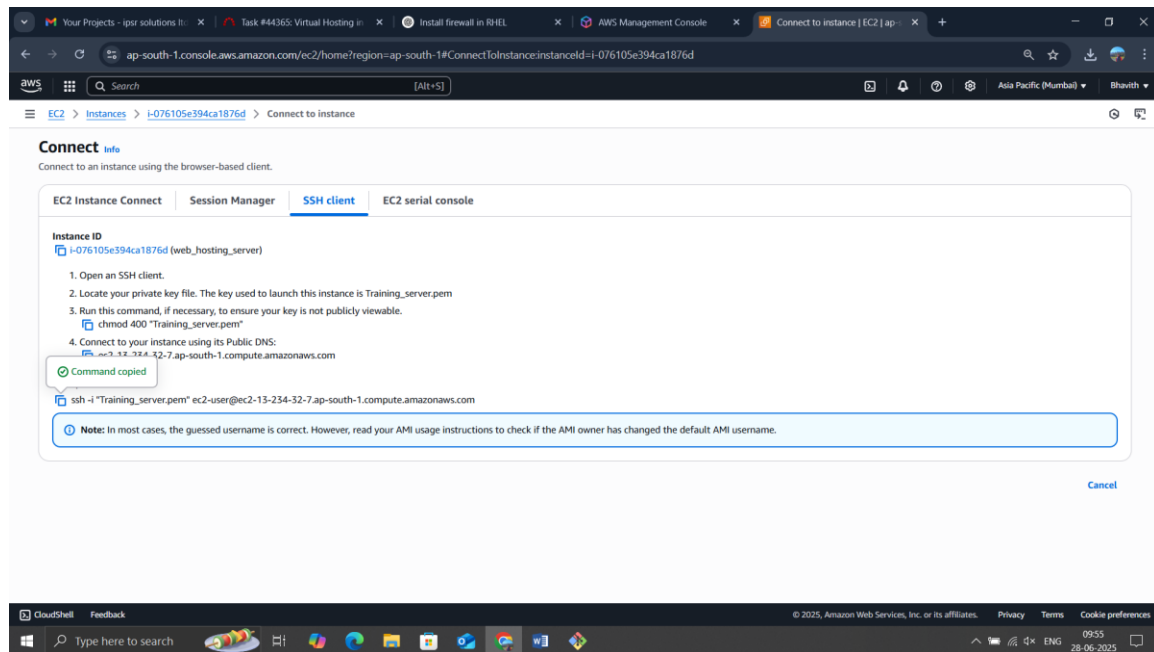


Host a PHP Website – Simple Guide

1. Launch an EC2 Instance:

- Use Amazon Linux or RHEL AMI.
- Choose t2.micro (free tier eligible).
- Allow HTTP and SSH in the security group.



2. Connect to EC2 Using Git Bash:

- Use the command:
ssh -i your-key.pem ec2-user@your-public-ip

```
bhavi@DESKTOP-ICDTI0 MINGW64 ~/Downloads
$ ssh -i "Training_server.pem" ec2-user@ec2-13-234-32-7.ap-south-1.compute.amazonaws.com
Register this system with Red Hat Insights: rhc connect

Example:
# rhc connect --activation-key <key> --organization <org>

The rhc client and Red Hat Insights will enable analytics and additional
management capabilities on your system.
View your connected systems at https://console.redhat.com/insights

You can learn more about how to register your system
using rhc at https://red.ht/registration
Last login: Sat Jun 28 04:22:56 2025 from 49.47.197.35
```

3. Install Apache and PHP:

- Run the following:

```
sudo yum install httpd php -y
```

```
[ec2-user@ip-172-31-41-103 ~]$ sudo yum install php -y
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use "rhc" or "subscription-manager" to register.

Last metadata expiration check: 0:54:15 ago on Sat Jun 28 04:47:06 2025.
Package php-8.3.19-1.el10_0.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
```

4. Install, Start and Enable Apache:

- Commands:

```
Sudo yum install httpd
sudo systemctl start httpd
sudo systemctl enable httpd
```

```
[ec2-user@ip-172-31-41-103 ~]$ sudo yum install httpd
Updating Subscription Management repositories.
Unable to read consumer identity

This system is not registered with an entitlement server. You can use "rhc" or "subscription-manager" to register.

Red Hat Enterprise Linux 10 for x86_64 - AppStream from RHUI (RPMs)
Red Hat Enterprise Linux 10 for x86_64 - BaseOS from RHUI (RPMs)
Red Hat Enterprise Linux 10 Client Configuration
Package httpd-2.4.63-1.el10.x86_64 is already installed.
Dependencies resolved.
Nothing to do.
Complete!
```

```
[ec2-user@ip-172-31-41-103 ~]$ sudo systemctl start httpd
[ec2-user@ip-172-31-41-103 ~]$ sudo systemctl enable httpd
[ec2-user@ip-172-31-41-103 ~]$
```

5. Create a User and Website Directory:

- Run:

```
sudo useradd bhavith
sudo passwd bhavith
sudo mkdir /home/bhavith/public_html
sudo chown -R bhavith:bhavith /home/bhavith/public_html
```

```
[ec2-user@ip-172-31-41-103 ~]$ sudo useradd bhavith
sudo passwd bhavith
sudo mkdir /home/bhavith/public_html
sudo chown -R bhavith:bhavith /home/bhavith/public_html
```

6. Create Sample PHP Page:

- Run:

```
echo "<?php echo 'Hello, this site is done by Bhavith P'; ?>" | sudo tee
/home/alice/public_html/index.php
```

```
ec2-user@ip-172-31-41-103:~
<?php
$name = "Bhavith";
echo "<h1>Welcome to My Website</h1>";
echo "<p>Name: $name</p>";
phpinfo();
?>
```

7. Set Permissions:

- Run:

```
sudo chmod 711 /home/bhavith
sudo chmod -R 755 /home/bhavith/public_html
[ec2-user@ip-172-31-41-103 ~]$ sudo chmod 711 /home/bhavith
sudo chmod -R 755 /home/bhavith/public_html
[ec2-user@ip-172-31-41-103 ~]$ |
```

8. Configure Apache VirtualHost:

- Create file:

```
sudo vim /etc/httpd/conf.d/myfirstwebsite.conf
```

- Add content with your public IP in ServerName

```
ec2-user@ip-172-31-41-103:~  
<VirtualHost *:80>  
    ServerName 13.234.32.7  
    DocumentRoot /home/bhavith/public_html  
  
    <Directory /home/bhavith/public_html>  
        Options Indexes FollowSymLinks  
        AllowOverride All  
        Require all granted  
    </Directory>  
  
    ErrorLog /var/log/httpd/myfirstwebsite_error.log  
    CustomLog /var/log/httpd/myfirstwebsite_access.log combined  
</VirtualHost>  
  
~  
~  
~  
~
```

9. Disable Default Apache Page:

- Run:

```
sudo mv /etc/httpd/conf.d/welcome.conf /etc/httpd/conf.d/welcome.conf.bak
```

```
[ec2-user@ip-172-31-41-103 ~]$ sudo mv /etc/httpd/conf.d/welcome.conf /etc/httpd/conf.d/welcome.conf.bak
```

10. Allow HTTP in Firewall and Security Group:

- Run:

```
sudo firewall-cmd --permanent --add-service=http
```

```
sudo firewall-cmd --reload
```

- Allow HTTP in AWS Security Group

```
sudo chmod -R 755 /home/bhavith/public_html  
[ec2-user@ip-172-31-41-103 ~]$ sudo vim /etc/httpd/conf.d/myfirstwebsite.conf  
[ec2-user@ip-172-31-41-103 ~]$ sudo firewall-cmd --permanent --add-service=http  
sudo firewall-cmd --reload  
Warning: ALREADY_ENABLED: http  
success  
success
```

11. Apply SELinux Permissions (if enforcing):

- Check with:

```
sestatus
```

- Fix with:

```
sudo chcon -R -t httpd_sys_content_t /home/bhavith/public_html
```

```
[root@ip-172-31-41-103 ~]# sestatus
SELinux status:                enabled
SELinuxfs mount:              /sys/fs/selinux
SELinux root directory:       /etc/selinux
Loaded policy name:            targeted
Current mode:                  enforcing
Mode from config file:        enforcing
Policy MLS status:             enabled
Policy deny_unknown status:    allowed
Memory protection checking:    actual (secure)
Max kernel policy version:     33
[root@ip-172-31-41-103 ~]# chcon -R -t httpd_sys_content_t /home/bhavith/public_html
[root@ip-172-31-41-103 ~]# systemctl restart httpd
```

12. Restart Apache:

- Run:

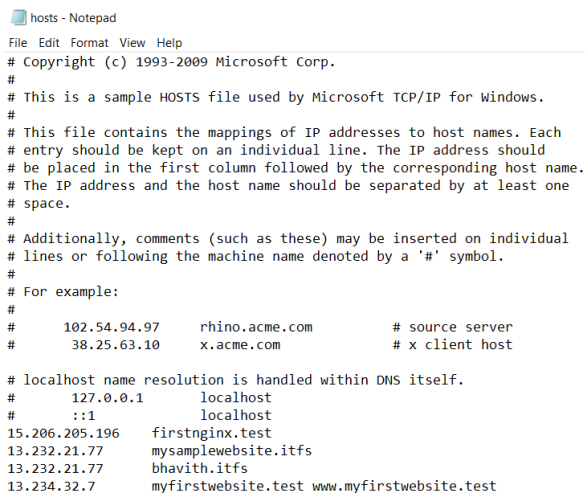
```
sudo systemctl restart httpd
```

13. Edit Hosts File on Your Laptop On your Windows laptop, do the following:

1. Open Notepad as Administrator.

2. Open the file: C:\Windows\System32\drivers\etc\hosts

3. Add these lines at the bottom (replace with your EC2 IP): 13.232.21.77
mysamplewebsite.itfs 13.232.21.77 bhavith.itfs



```
hosts - Notepad
File Edit Format View Help
# Copyright (c) 1993-2009 Microsoft Corp.
#
# This is a sample HOSTS file used by Microsoft TCP/IP for Windows.
#
# This file contains the mappings of IP addresses to host names. Each
# entry should be kept on an individual line. The IP address should
# be placed in the first column followed by the corresponding host name.
# The IP address and the host name should be separated by at least one
# space.
#
# Additionally, comments (such as these) may be inserted on individual
# lines or following the machine name denoted by a '#' symbol.
#
# For example:
#
#       102.54.94.97       rhino.acme.com          # source server
#       38.25.63.10        x.acme.com             # x client host


# localhost name resolution is handled within DNS itself.
#       127.0.0.1         localhost
#       ::1               localhost
15.206.205.196 firstnginx.test
13.232.21.77   mysamplewebsite.itfs
13.232.21.77   bhavith.itfs
13.234.32.7    myfirstwebsite.test www.myfirstwebsite.test
```

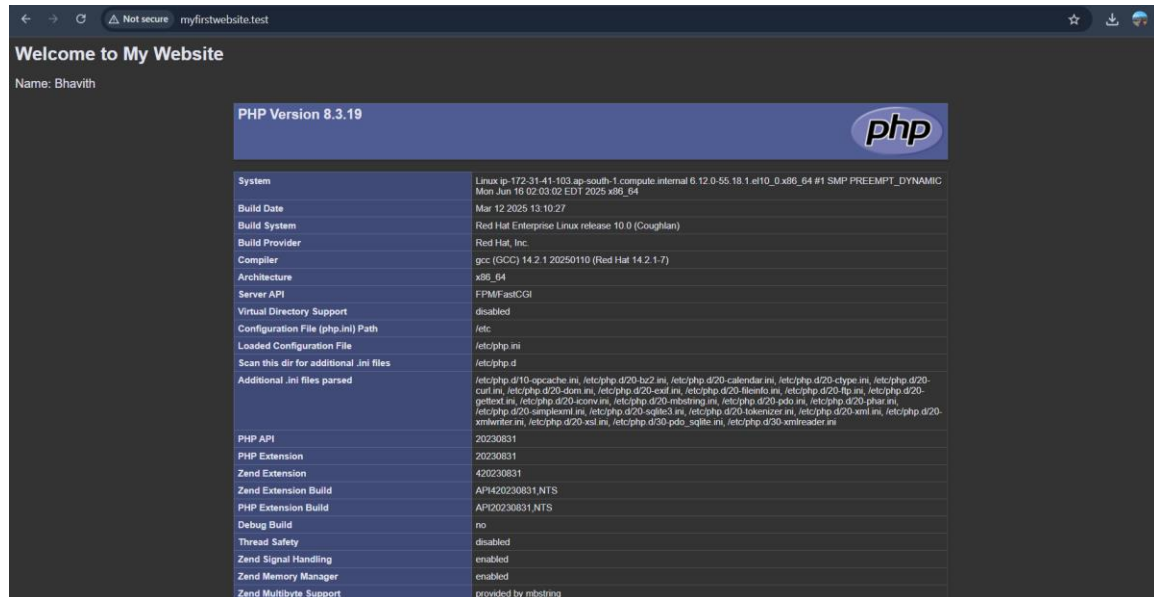
4. Save and close the file.

14. Test Website:

- Use:

curl http://your-public-ip

- Or open it in a browser



The screenshot shows a web browser window with the address bar displaying "myfirstwebsite.test". The page title is "Welcome to My Website" and the name "Name: Bhavith" is visible. The main content area displays "PHP Version 8.3.19" with the PHP logo. Below this, a table lists various system and configuration details.

PHP Version 8.3.19	
System	Linux ip-172-31-41-103-ap-south-1.compute.internal 6.12.0-55.18.1.el10_0.x86_64 SMP PREEMPT_DYNAMIC Mon Jun 16 02:03:02 EDT 2025 x86_64
Build Date	Mar 12 2025 13:10:27
Build System	Red Hat Enterprise Linux release 10.0 (Coughlin)
Build Provider	Red Hat, Inc.
Compiler	gcc (GCC) 14.2.1 20250110 (Red Hat 14.2.1-7)
Architecture	x86_64
Server API	FPM/FastCGI
Virtual Directory Support	disabled
Configuration File (php.ini) Path	/etc
Loaded Configuration File	/etc/php.ini
Scan this dir for additional .ini files	/etc/php.d
Additional .ini files parsed	/etc/php.d/10-opcache.ini, /etc/php.d/20-bz2.ini, /etc/php.d/20-calendar.ini, /etc/php.d/20-ctype.ini, /etc/php.d/20-curl.ini, /etc/php.d/20-dbm.ini, /etc/php.d/20-dom.ini, /etc/php.d/20-ffi.ini, /etc/php.d/20-fileinfo.ini, /etc/php.d/20-ftp.ini, /etc/php.d/20-gdlib.ini, /etc/php.d/20-iconv.ini, /etc/php.d/20-imagick.ini, /etc/php.d/20-ldap.ini, /etc/php.d/20-libxml.ini, /etc/php.d/20-mbstring.ini, /etc/php.d/20-mcrypt.ini, /etc/php.d/20-mysqlnd.ini, /etc/php.d/20-openssl.ini, /etc/php.d/20-pdo.ini, /etc/php.d/20-phar.ini, /etc/php.d/20-posix.ini, /etc/php.d/20-readline.ini, /etc/php.d/20-replicate.ini, /etc/php.d/20-session.ini, /etc/php.d/20-shmop.ini, /etc/php.d/20-simplexml.ini, /etc/php.d/20-sockets.ini, /etc/php.d/20-tokenizer.ini, /etc/php.d/20-xml.ini, /etc/php.d/20-xmlrpc.ini, /etc/php.d/20-xsl.ini, /etc/php.d/30-pdo_sqlite.ini, /etc/php.d/30-xmlreader.ini
PHP API	20230831
PHP Extension	20230831
Zend Extension	420230831
Zend Extension Build	API420230831.NTS
PHP Extension Build	API20230831.NTS
Debug Build	no
Thread Safety	disabled
Zend Signal Handling	enabled
Zend Memory Manager	enabled
Zend Multibyte Support	provided by mbstring