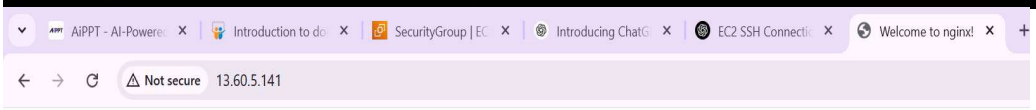
Creating Docker images

```
[root@ip-172-31-21-150 ec2-user]# docker images
REPOSITORY       TAG       IMAGE ID       CREATED        SIZE
chleela/tomcat   mytag     15a617d619d4   7 days ago     467MB
tomcat           latest    15a617d619d4   7 days ago     467MB
chleela/dev      proje     602eb6fb314b   8 days ago     78.1MB
ubuntu           latest    602eb6fb314b   8 days ago     78.1MB
nginx            latest    4cad75abc83d   2 months ago   192MB
chleela/qa       project   4cad75abc83d   2 months ago   192MB
[root@ip-172-31-21-150 ec2-user]# docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
[root@ip-172-31-21-150 ec2-user]# docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED         STATUS
87e027c6d356   tomcat         "catalina.sh run"        43 hours ago    Exited (14
ed9d1e5f50e1   602eb6fb314b   "/bin/bash"              47 hours ago    Exited (13
cdcb1d8625c1   4cad75abc83d   "/docker-entrypoint.…"   3 days ago      Exited (0)
[root@ip-172-31-21-150 ec2-user]# docker run -p nginx
"docker run" requires at least 1 argument.
See 'docker run --help'.

Usage:  docker run [OPTIONS] IMAGE [COMMAND] [ARG...]

Create and run a new container from an image
[root@ip-172-31-21-150 ec2-user]# docker run -d -p 80:80 nginx
df90a85b631f8b7139403018e5db028095e87b3c00f2f778c02814003012f835
[root@ip-172-31-21-150 ec2-user]#
```



Welcome to nginx!

If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

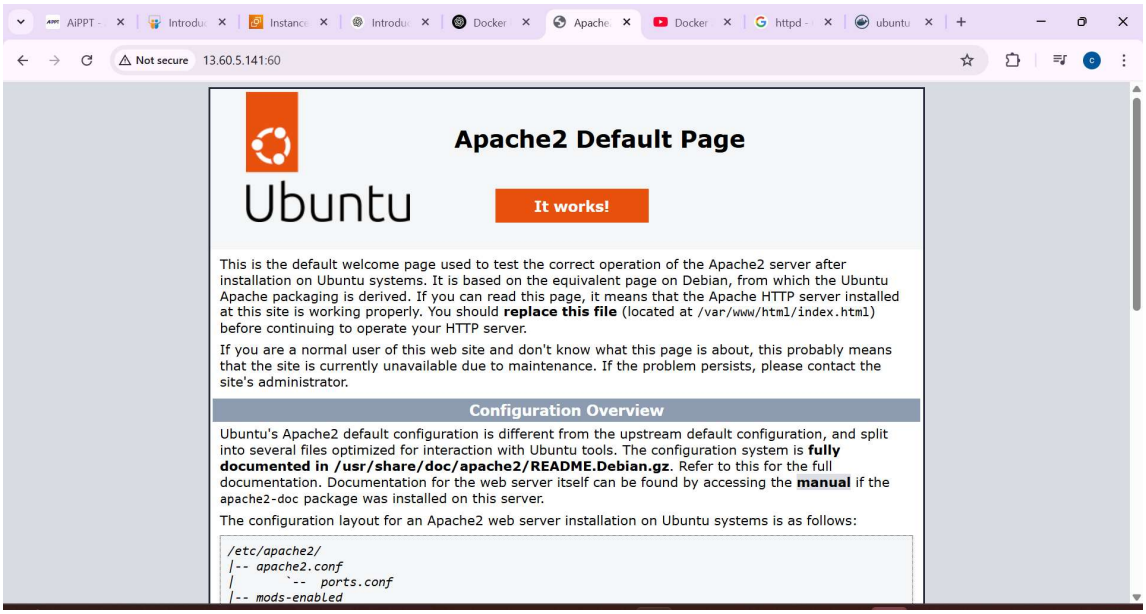
For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

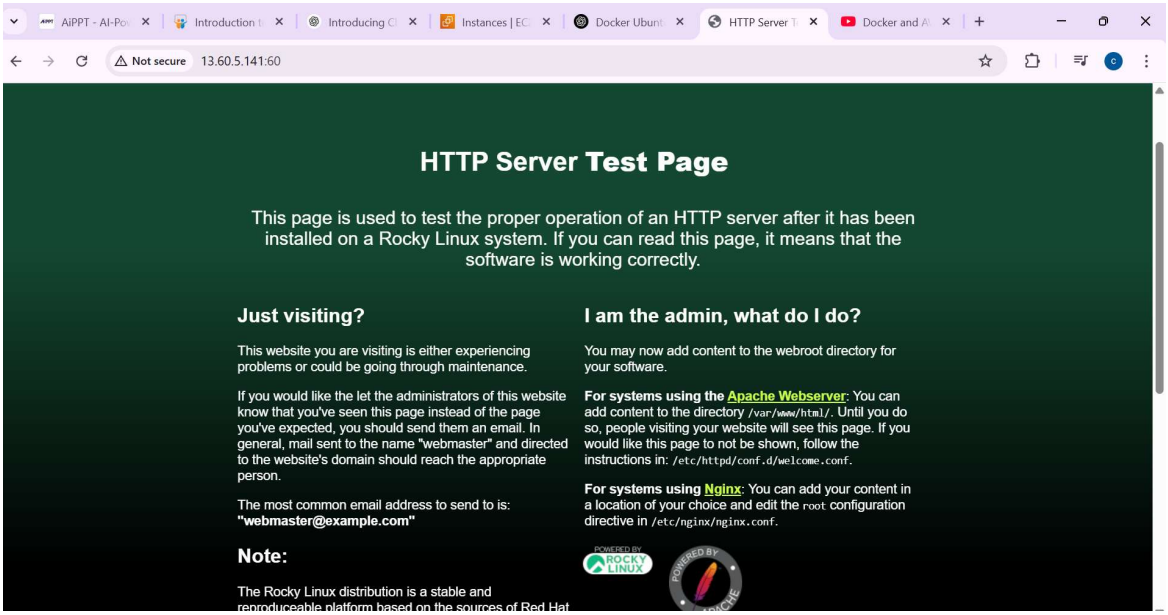
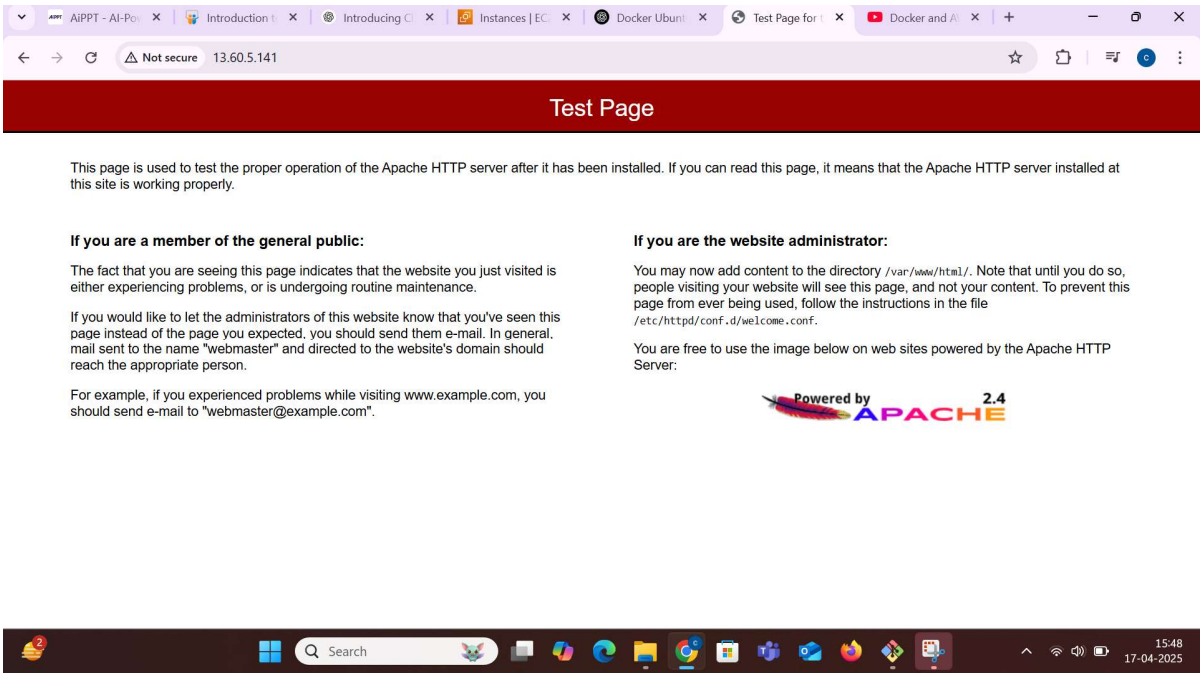
Thank you for using nginx.

```
latest: Pulling from library/httpd
8a628cdd7ccc: Already exists
60ba3d18ad64: Pull complete
4f4fb700ef54: Pull complete
03e322382f93: Pull complete
4ad6b63c403f: Pull complete
c613327bbca6: Pull complete
Digest: sha256:4564ca7604957765bd2598e14134a1c6812067f0daddd7dc5a484431dd03832b
Status: Downloaded newer image for httpd:latest
AH00558: httpd: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this message
AH00558: httpd: Could not reliably determine the server's fully qualified domain name, using 172.17.0.2. Set the 'ServerName' directive globally to suppress this message
[Thu Apr 17 09:11:17.595614 2025] [mpm_event:notice] [pid 1:tid 1] AH00489: Apache/2.4.63 (Unix) configured -- resuming normal operations
[Thu Apr 17 09:11:17.595992 2025] [core:notice] [pid 1:tid 1] AH00094: Command line: 'httpd -D FOREGROUND'
^C[Thu Apr 17 09:11:51.548116 2025] [mpm_event:notice] [pid 1:tid 1] AH00491: caught SIGTERM, shutting down
[root@ip-172-31-21-150 ec2-user]# docker ps
CONTAINER ID   IMAGE     COMMAND   CREATED   STATUS    PORTS     NAMES
[root@ip-172-31-21-150 ec2-user]# docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED          STATUS                       PORTS     NAMES
c61a08f839f4   httpd          "httpd-foreground"       59 seconds ago   Exited (0) 25 seconds ago              sweet_joliot
a488e72ff4fb   602eb6fb314b   "/bin/bash"              21 minutes ago   Exited (0) 21 minutes ago              naughty_shockley
2d36e05680b9   ubuntu         "/bin/bash"              26 minutes ago   Exited (127) 24 minutes ago            recursing_saha
df90a85b631f   nginx          "/docker-entrypoint.…"   33 minutes ago   Exited (0) 19 minutes ago              sleepy_ganguly
87e027c6d356   tomcat         "catalina.sh run"        44 hours ago     Exited (143) 43 hours ago              my-tomcat
ed9d1e5f50e1   602eb6fb314b   "/bin/bash"              2 days ago       Exited (137) 47 hours ago              c2
cdcb1d8625c1   4cad75abc83d   "/docker-entrypoint.…"   3 days ago       Exited (0) 2 days ago                  CH-Leela
[root@ip-172-31-21-150 ec2-user]# docker rm ed9d1e5f50e1
ed9d1e5f50e1
[root@ip-172-31-21-150 ec2-user]# docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED          STATUS                       PORTS     NAMES
c61a08f839f4   httpd          "httpd-foreground"       3 minutes ago    Exited (0) 2 minutes ago               sweet_joliot
a488e72ff4fb   602eb6fb314b   "/bin/bash"              23 minutes ago   Exited (0) 23 minutes ago              naughty_shockley
2d36e05680b9   ubuntu         "/bin/bash"              28 minutes ago   Exited (127) 26 minutes ago            recursing_saha
df90a85b631f   nginx          "/docker-entrypoint.…"   35 minutes ago   Exited (0) 21 minutes ago              sleepy_ganguly
87e027c6d356   tomcat         "catalina.sh run"        44 hours ago     Exited (143) 43 hours ago              my-tomcat
cdcb1d8625c1   4cad75abc83d   "/docker-entrypoint.…"   3 days ago       Exited (0) 2 days ago                  CH-Leela
[root@ip-172-31-21-150 ec2-user]# docker rm 87e027c6d356
87e027c6d356
[root@ip-172-31-21-150 ec2-user]# docker rm 2d36e05680b9
2d36e05680b9
[root@ip-172-31-21-150 ec2-user]# docker ps -a
CONTAINER ID   IMAGE          COMMAND                  CREATED          STATUS                       PORTS     NAMES
c61a08f839f4   httpd          "httpd-foreground"       4 minutes ago    Exited (0) 4 minutes ago               sweet_joliot
a488e72ff4fb   602eb6fb314b   "/bin/bash"              24 minutes ago   Exited (0) 24 minutes ago              naughty_shockley
df90a85b631f   nginx          "/docker-entrypoint.…"   36 minutes ago   Exited (0) 23 minutes ago              sleepy_ganguly
cdcb1d8625c1   4cad75abc83d   "/docker-entrypoint.…"   3 days ago       Exited (0) 2 days ago                  CH-Leela
[root@ip-172-31-21-150 ec2-user]# docker run -p 8080:80 -d httpd
f73250dc7f8358c1c5a5589e2de16d0f268a2467717e1b9431c3ed8180bdddd4
[root@ip-172-31-21-150 ec2-user]#
```

It works!

```
[root@ip-172-31-21-150 ec2-user]# mkdir ubuntu-apache
[root@ip-172-31-21-150 ec2-user]# cd ubuntu-apache
[root@ip-172-31-21-150 ubuntu-apache]# nano Dockerfile
[root@ip-172-31-21-150 ubuntu-apache]# docker run -d -p 60:80 ubuntu-apache
Unable to find image 'ubuntu-apache:latest' locally
docker: Error response from daemon: pull access denied for ubuntu-apache, repository does not exist or may require 'docker login': denied: requested access to the resource
is denied.
See 'docker run --help'.
[root@ip-172-31-21-150 ubuntu-apache]# docker build -t ubuntu-apache .
[+] Building 19.6s (6/6) FINISHED                                                                                                                  docker:default
 => [internal] load build definition from Dockerfile                                                                                                         0.0s
 => => transferring dockerfile: 292B                                                                                                                         0.0s
 => [internal] load metadata for docker.io/library/ubuntu:latest                                                                                             0.0s
 => [internal] load .dockerignore                                                                                                                            0.0s
 => => transferring context: 2B                                                                                                                              0.0s
 => [1/2] FROM docker.io/library/ubuntu:latest                                                                                                               0.0s
 => [2/2] RUN apt update &&     apt install apache2 -y &&     echo "ServerName localhost" >> /etc/apache2/apache2.conf                                      17.2s
 => exporting to image                                                                                                                                       2.2s
 => => exporting layers                                                                                                                                      2.2s
 => => writing image sha256:f029d99196ccdc65446d9000548d950ff2aee8efe9f02087d699dc01d84859dd                                                                 0.0s
 => => naming to docker.io/library/ubuntu-apache                                                                                                             0.0s
[root@ip-172-31-21-150 ubuntu-apache]# docker run -d -p 60:80 ubuntu-apache
14ede9b4b32e5c1b36b6141dbc2b7a6a09469dbd383efb2073abf7c366d1b90c
[root@ip-172-31-21-150 ubuntu-apache]# http://localhost:60
bash: http://localhost:60: No such file or directory
[root@ip-172-31-21-150 ubuntu-apache]#
```


Not secure
13.60.5.141:60
Apache2 Default Page
Ubuntu
It works!
This is the default welcome page used to test the correct operation of the Apache2 server after installation on Ubuntu systems. It is based on the equivalent page on Debian, from which the Ubuntu Apache packaging is derived. If you can read this page, it means that the Apache HTTP server installed at this site is working properly. You should replace this file (located at /var/www/html/index.html) before continuing to operate your HTTP server.
If you are a normal user of this web site and don't know what this page is about, this probably means that the site is currently unavailable due to maintenance. If the problem persists, please contact the site's administrator.
Configuration Overview
Ubuntu's Apache2 default configuration is different from the upstream default configuration, and split into several files optimized for interaction with Ubuntu tools. The configuration system is fully documented in /usr/share/doc/apache2/README.Debian.gz. Refer to this for the full documentation. Documentation for the web server itself can be found by accessing the manual if the apache2-doc package was installed on this server.
The configuration layout for an Apache2 web server installation on Ubuntu systems is as follows:
/etc/apache2/
|-- apache2.conf
| `-- ports.conf
|-- mods-enabled


Not secure
13.60.5.141:60
HTTP Server Test Page
This page is used to test the proper operation of an HTTP server after it has been installed on a Rocky Linux system. If you can read this page, it means that the software is working correctly.
Just visiting?
This website you are visiting is either experiencing problems or could be going through maintenance.
If you would like the let the administrators of this website know that you've seen this page instead of the page you've expected, you should send them an email. In general, mail sent to the name "webmaster" and directed to the website's domain should reach the appropriate person.
The most common email address to send to is: "webmaster@example.com"
Note:
The Rocky Linux distribution is a stable and
I am the admin, what do I do?
You may now add content to the webroot directory for your software.
For systems using the Apache Webserver: You can add content to the directory /var/www/html/. Until you do so, people visiting your website will see this page. If you would like this page to not be shown, follow the instructions in: /etc/httpd/conf.d/welcome.conf.
For systems using Nginx: You can add your content in a location of your choice and edit the root configuration directive in /etc/nginx/nginx.conf.

```
[root@ip-172-31-21-150 ec2-user]# docker ps
CONTAINER ID   IMAGE          COMMAND                  CREATED         STATUS         PORTS                                   NAMES
c9ecd1a107dd   redhat-apache  "/usr/sbin/httpd -D …"   7 minutes ago   Up 7 minutes   0.0.0.0:60->80/tcp, :::60->80/tcp   jolly_morse
[root@ip-172-31-21-150 ec2-user]# docker stop c9ecd1a107dd
c9ecd1a107dd
[root@ip-172-31-21-150 ec2-user]# mkdir amazon-linux-apache
[root@ip-172-31-21-150 ec2-user]# cd amazon-linux-apache
[root@ip-172-31-21-150 amazon-linux-apache]# nano dockerfile
[root@ip-172-31-21-150 amazon-linux-apache]# docker build -t amazon-linux-apache .
[+] Building 26.7s (8/8) FINISHED                                                                                    docker:default
 => [internal] load build definition from dockerfile                                                                          0.0s
 => => transferring dockerfile: 406B                                                                                          0.0s
 => [internal] load metadata for docker.io/library/amazonlinux:2                                                              1.5s
 => [auth] library/amazonlinux:pull token for registry-1.docker.io                                                            0.0s
 => [internal] load .dockerignore                                                                                             0.0s
 => => transferring context: 2B                                                                                               0.0s
 => [1/3] FROM docker.io/library/amazonlinux:2@sha256:cdd35aff33c0135d6e3fcadd500577a09c85b70cdf00573e213e1924e802602d        4.4s
 => => resolve docker.io/library/amazonlinux:2@sha256:cdd35aff33c0135d6e3fcadd500577a09c85b70cdf00573e213e1924e802602d        0.0s
 => => sha256:cdd35aff33c0135d6e3fcadd500577a09c85b70cdf00573e213e1924e802602d 2.37kB / 2.37kB                                0.0s
 => => sha256:517947963c093641648f2a40536173981801f71ea64023aedcaa9572f6483d66 1.02kB / 1.02kB                                0.0s
 => => sha256:a48d139e5b692444eed8c101461177af820284d97a858ef36fefffc2dd3d5668 556B / 556B                                    0.0s
 => => sha256:68b5eef1eb563a36e20df422ee1592c70689019fdd12cc4fdc4e4b24c31c1c77 62.75MB / 62.75MB                              0.8s
 => => extracting sha256:68b5eef1eb563a36e20df422ee1592c70689019fdd12cc4fdc4e4b24c31c1c77                                      3.5s
 => [2/3] RUN yum update -y && yum install -y httpd                                                                          16.7s
 => [3/3] WORKDIR /var/www/html                                                                                               0.1s
 => exporting to image                                                                                                        3.8s
 => => exporting layers                                                                                                       3.8s
 => => writing image sha256:1e297d877d65e2fa9ad047578ccb3488ab1e66fac4264f8fb63eb140da8e7b4a                                  0.0s
 => => naming to docker.io/library/amazon-linux-apache                                                                        0.0s
[root@ip-172-31-21-150 amazon-linux-apache]# docker run -d -p 80:80 amazon-linux-apache
7dc69c2b35385342120250aed39230d492025da54b89d09e8352d0eb64991a94
[root@ip-172-31-21-150 amazon-linux-apache]#
```