Module-3: Docker – I Assignment – 4

You have been asked to:

Create a dockerfile with the following specs:

- Ubuntu container
- Apache2 installed
- Apache2 should automatically run once the container starts

Submit the dockerfile, for assignment completion

://us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:v=3;$case=tags:true%5C,client:false;$regex=tags:false%5C,client:false

[Alt+S]

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Successfully terminated i-06e788e75245c27f8

Instances (1/2) Info

Connect | Instance state ▾ | Actions ▾ | Launch instances ▾

Find instance by attribute or tag (case-sensitive)

1

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
Docker-test	i-0cdc547b0c1f3000d	Running	t2.micro	2/2 checks passed	No alarms +	us-east-1a
Docker-test2	i-06e788e75245c27f8	Terminated	t2.micro	–	No alarms +	us-east-1c

Instance: i-0cdc547b0c1f3000d (Docker-test)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

Instance summary Info

Instance ID
i-0cdc547b0c1f3000d (Docker-test)

IPv6 address
–

Hostname type
IP name: ip-172-31-31-157.ec2.internal

Answer private resource DNS name
IPv4 (A)

Auto-assigned IP address

Public IPv4 address
184.72.88.94 | open address

Instance state
Running

Private IP DNS name (IPv4 only)
ip-172-31-31-157.ec2.internal

Instance type
t2.micro

VPC ID

Private IPv4 addresses
172.31.31.157

Public IPv4 DNS
ec2-184-72-88-94.compute-1.amazonaws.com | open address

Elastic IP addresses
–

AWS Compute Optimizer finding

https://us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#ConnectToInstance:instanceId=i-0cdc547b0c1f3000d

aws Services Search [Alt+S]

EC2 > Instances > i-0cdc547b0c1f3000d > Connect to instance

Connect to instance Info

Connect to your instance i-0cdc547b0c1f3000d (Docker-test) using any of these options

EC2 Instance Connect | Session Manager | SSH client | EC2 serial console

Instance ID

i-0cdc547b0c1f3000d (Docker-test)

Public IP address

184.72.88.94

User name

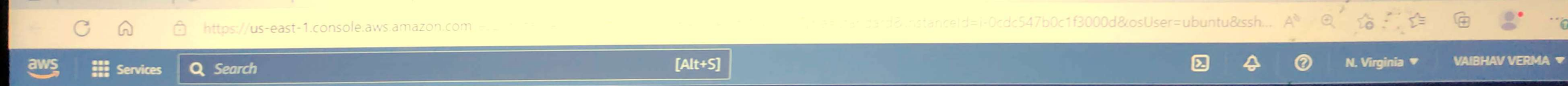
Enter the user name defined in the AMI used to launch the instance. If you didn't define a custom user name, use the default user name, ubuntu.

ubuntu

Note: In most cases, the default user name, ubuntu, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI user name.

Cancel Connect

https://us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-1&connType=standard&instanceId=i-0cdc547b0c1f3000d&osUser=ubuntu&sshPort=22 © Amazon We


https://us-east-1.console.aws.amazon.com
aws
Services
Search
[Alt+S]
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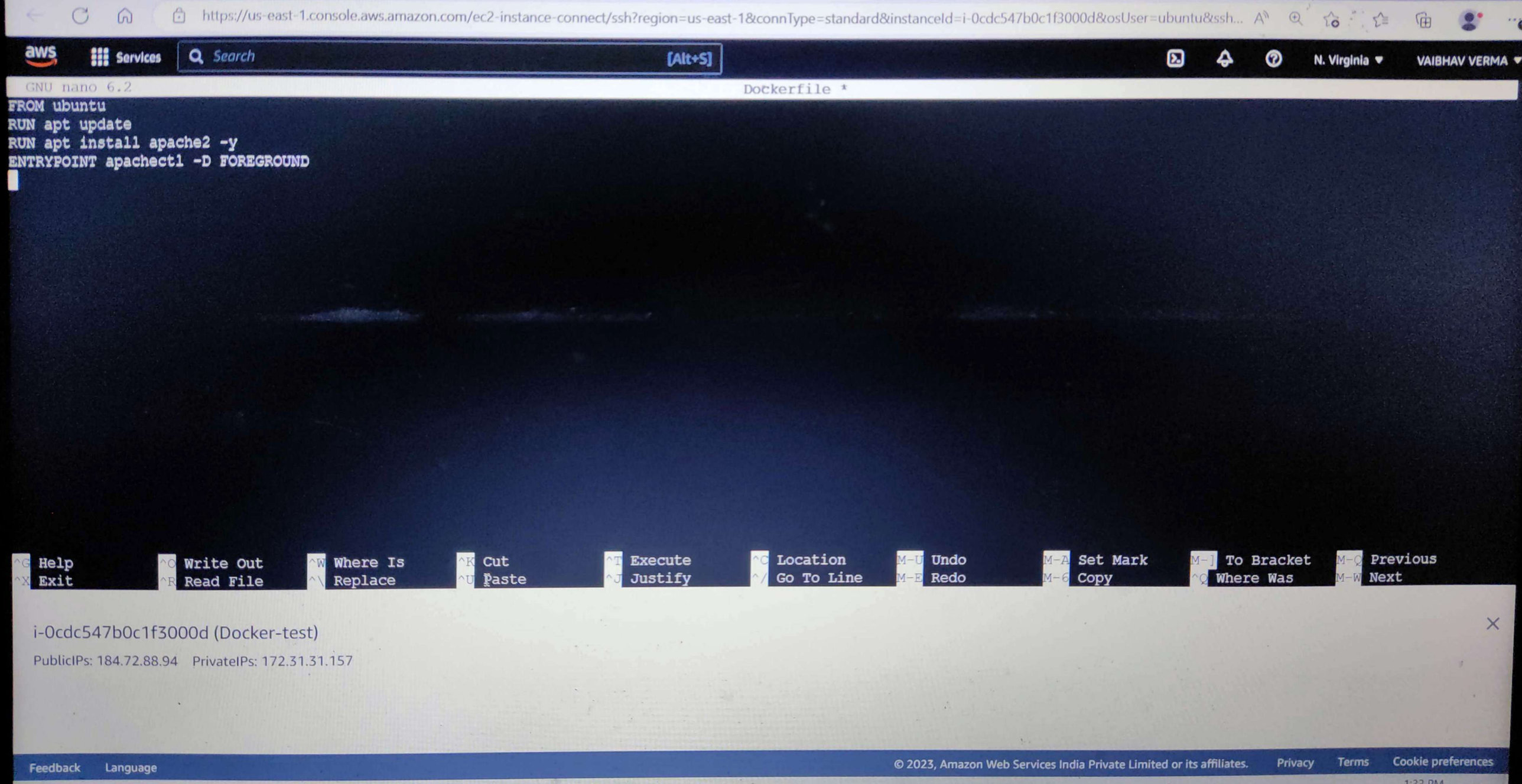
ubuntu@ip-172-31-31-157:~$ sudo nano Dockerfile


https://us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-1&connType=standard&instanceId=i-0cdc547b0c1f3000d&osUser=ubuntu&ssh...
aws
Services
Search
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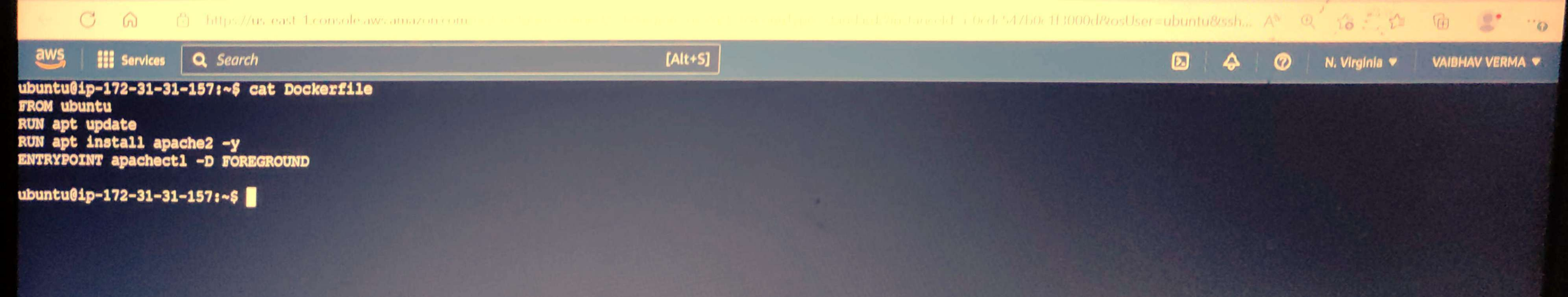
GNU nano 6.2
Dockerfile *
FROM ubuntu
RUN apt update
RUN apt install apache2 -y
ENTRYPOINT apachectl -D FOREGROUND
^G Help
^X Exit
^O Write Out
^R Read File
^W Where Is
^\ Replace
^K Cut
^U Paste
^T Execute
^J Justify
^C Location
^/ Go To Line
M-U Undo
M-E Redo
M-A Set Mark
M-6 Copy
M-] To Bracket
^Q Where Was
M-Q Previous
M-W Next
i-0cdc547b0c1f3000d (Docker-test)
PublicIPs: 184.72.88.94 PrivateIPs: 172.31.31.157
Feedback
Language
© 2023, Amazon Web Services India Private Limited or its affiliates.
Privacy
Terms
Cookie preferences


https://us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?connType=standard&instanceId=i-0bcdc547b0c113000d&osUser=ubuntu&ssh...
aws
Services
Search
[Alt+S]
N. Virginia
VAIBHAV VERMA
ubuntu@ip-172-31-31-157:~$ cat Dockerfile
FROM ubuntu
RUN apt update
RUN apt install apache2 -y
ENTRYPOINT apachectl -D FOREGROUND
ubuntu@ip-172-31-31-157:~$


https://us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-1&connType=standard&instanceId=i-0cdc547b0c1f3000d&osUser=ubuntu&ssh...
aws
Services
Search
[Alt+S]
N. Virginia
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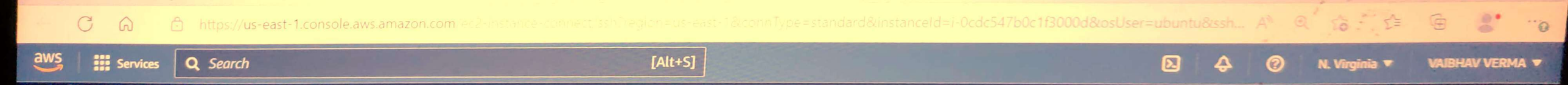
ubuntu@ip-172-31-31-157:~$ ls
Dockerfile
ubuntu@ip-172-31-31-157:~$

```
ubuntu@ip-172-31-31-157:~$ sudo docker build . -t assignment4
Sending build context to Docker daemon  14.85kB
Step 1/4 : FROM ubuntu
 ---> 74f2314a03de
Step 2/4 : RUN apt update
 ---> Running in fddef2a3888c

WARNING: apt does not have a stable CLI interface. Use with caution in scripts.

Get:1 http://security.ubuntu.com/ubuntu jammy-security InRelease [110 kB]
Get:2 http://archive.ubuntu.com/ubuntu jammy InRelease [270 kB]
Get:3 http://security.ubuntu.com/ubuntu jammy-security/restricted amd64 Packages [823 kB]
Get:4 http://security.ubuntu.com/ubuntu jammy-security/main amd64 Packages [865 kB]
Get:5 http://security.ubuntu.com/ubuntu jammy-security/universe amd64 Packages [891 kB]
Get:6 http://security.ubuntu.com/ubuntu jammy-security/multiverse amd64 Packages [5557 B]
Get:7 http://archive.ubuntu.com/ubuntu jammy-updates InRelease [119 kB]
Get:8 http://archive.ubuntu.com/ubuntu jammy-backports InRelease [107 kB]
Get:9 http://archive.ubuntu.com/ubuntu jammy/multiverse amd64 Packages [266 kB]
Get:10 http://archive.ubuntu.com/ubuntu jammy/restricted amd64 Packages [164 kB]
Get:11 http://archive.ubuntu.com/ubuntu jammy/main amd64 Packages [1792 kB]
Get:12 http://archive.ubuntu.com/ubuntu jammy/universe amd64 Packages [17.5 MB]
Get:13 http://archive.ubuntu.com/ubuntu jammy-updates/multiverse amd64 Packages [10.9 kB]
Get:14 http://archive.ubuntu.com/ubuntu jammy-updates/restricted amd64 Packages [880 kB]
Get:15 http://archive.ubuntu.com/ubuntu jammy-updates/main amd64 Packages [1195 kB]
Get:16 http://archive.ubuntu.com/ubuntu jammy-updates/universe amd64 Packages [1131 kB]
Get:17 http://archive.ubuntu.com/ubuntu jammy-backports/universe amd64 Packages [22.4 kB]
Get:18 http://archive.ubuntu.com/ubuntu jammy-backports/main amd64 Packages [49.0 kB]
Fetched 26.2 MB in 3s (8411 kB/s)
```


https://us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh?region=us-east-1&connType=standard&instanceId=i-0cdc547b0c1f3000d&osUser=ubuntu&ssh...
aws
Services
Search
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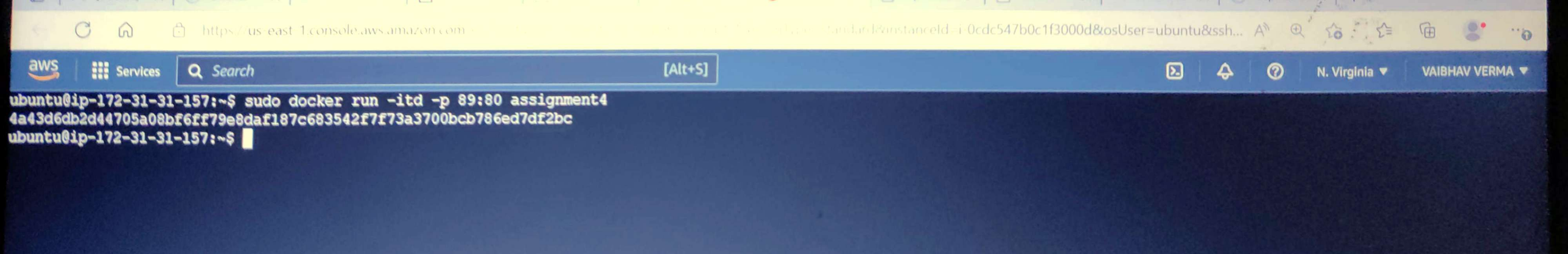
ubuntu@ip-172-31-31-157:~$ sudo docker images
REPOSITORY TAG IMAGE ID CREATED SIZE
assignment4 latest 1bf14254db1e 2 minutes ago 228MB
assignment2 latest 9eee48ae9203 25 hours ago 228MB
vaibhavverma01/testing2 latest 9eee48ae9203 25 hours ago 228MB
ubuntu latest 74f2314a03de 13 days ago 77.8MB
ubuntu@ip-172-31-31-157:~$


https://us-east-1.console.aws.amazon.com/...instanceId=i-0cdc547b0c1f3000d&osUser=ubuntu&ssh...
aws
Services
Search
[Alt+S]
N. Virginia
VAIBHAV VERMA
ubuntu@ip-172-31-31-157:~$ sudo docker run -itd -p 89:80 assignment4
4a43d6db2d44705a08bf6ff79e8daf187c683542f7f73a3700bcb786ed7df2bc
ubuntu@ip-172-31-31-157:~$

s://us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#Instances:v=3;$case=tags:true%5C,client:false;$regex=tags:false%5C,client:false

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Instances (1/2) Info

Connect | Instance state | Actions | Launch instances

Find instance by attribute or tag (case-sensitive)

1

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone
Docker-test	i-0cdc547b0c1f3000d	Running	t2.micro	2/2 checks passed	No alarms	us-east-1a
Docker-test2	i-06e788e75245c27f8	Terminated	t2.micro	–	No alarms	us-east-1c

Instance: i-0cdc547b0c1f3000d (Docker-test)

Details | Security | Networking | Storage | Status checks | Monitoring | Tags

Public IPv4 address copied

Instance summary Info

Instance ID
i-0cdc547b0c1f3000d (Docker-test)

184.72.88.94 | open address

Private IPv4 addresses
172.31.31.157

IPv6 address
–

Instance state
Running

Public IPv4 DNS
ec2-184-72-88-94.compute-1.amazonaws.com | open address

Hostname type
IP name: ip-172-31-31-157.ec2.internal

Private IP DNS name (IPv4 only)
ip-172-31-31-157.ec2.internal

Answer private resource DNS name
IPv4 (A)

Instance type
t2.micro

Elastic IP addresses
–

Auto-assigned IP address

VPC ID

AWS Compute Optimizer finding

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
|       |-- *.load
|       `-- *.conf
|-- conf-enabled
|       `-- *.conf
|-- sites-enabled
|       `-- *.conf
```

- `apache2.conf` is the main configuration file. It puts the pieces together by including all remaining configuration files when starting up the web server.
- `ports.conf` is always included from the main configuration file. It is used to determine the listening ports for incoming connections, and this file can be customized anytime.
- Configuration files in the `mods-enabled/`, `conf-enabled/` and `sites-enabled/` directories contain particular configuration snippets which manage modules, global configuration fragments, or