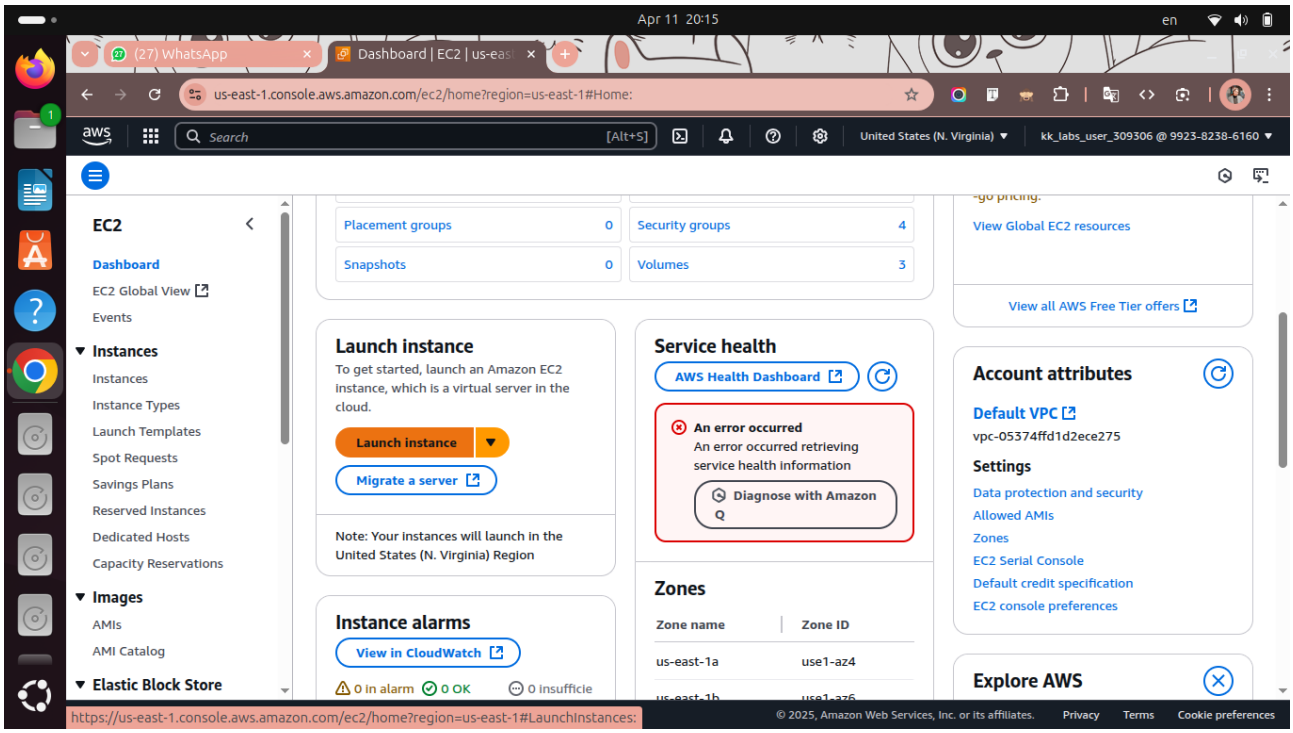
LAB 1:

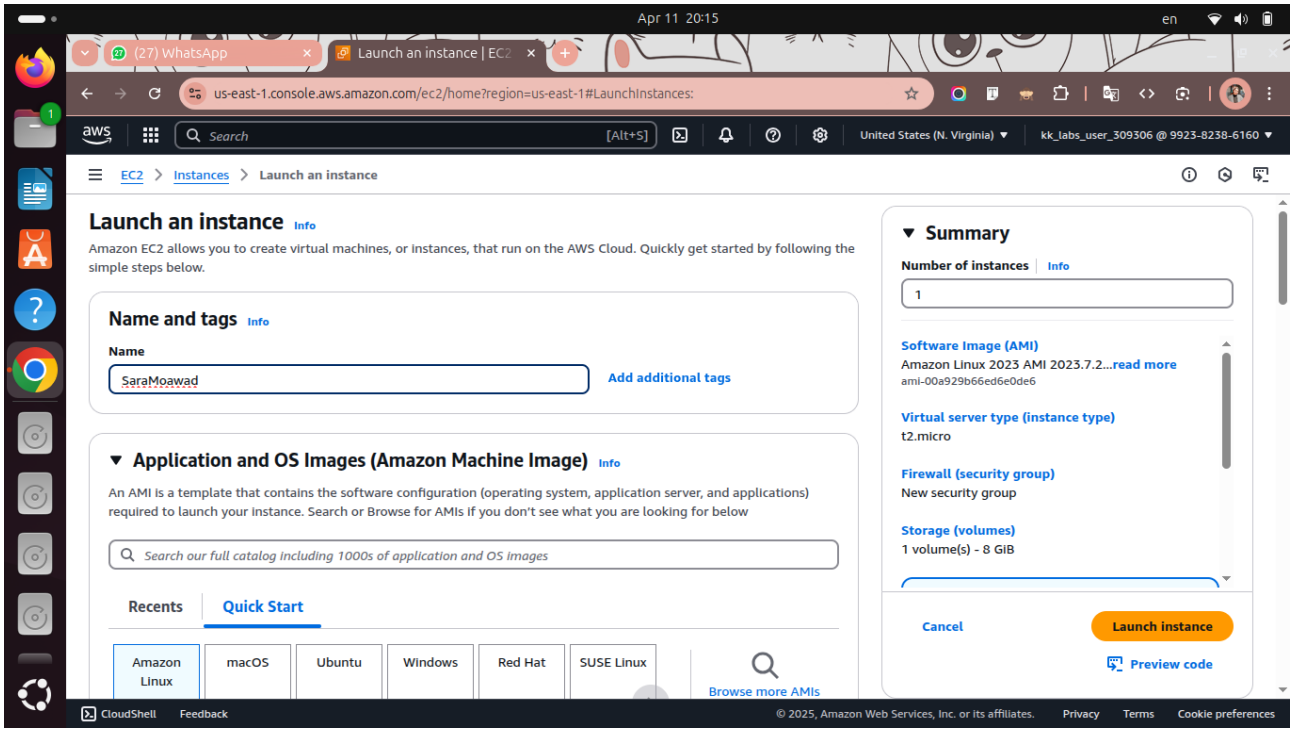
To launch your first EC2 instance of Linux OS, install httpd package and run simple html webpage allowed for public access from anywhere.

.

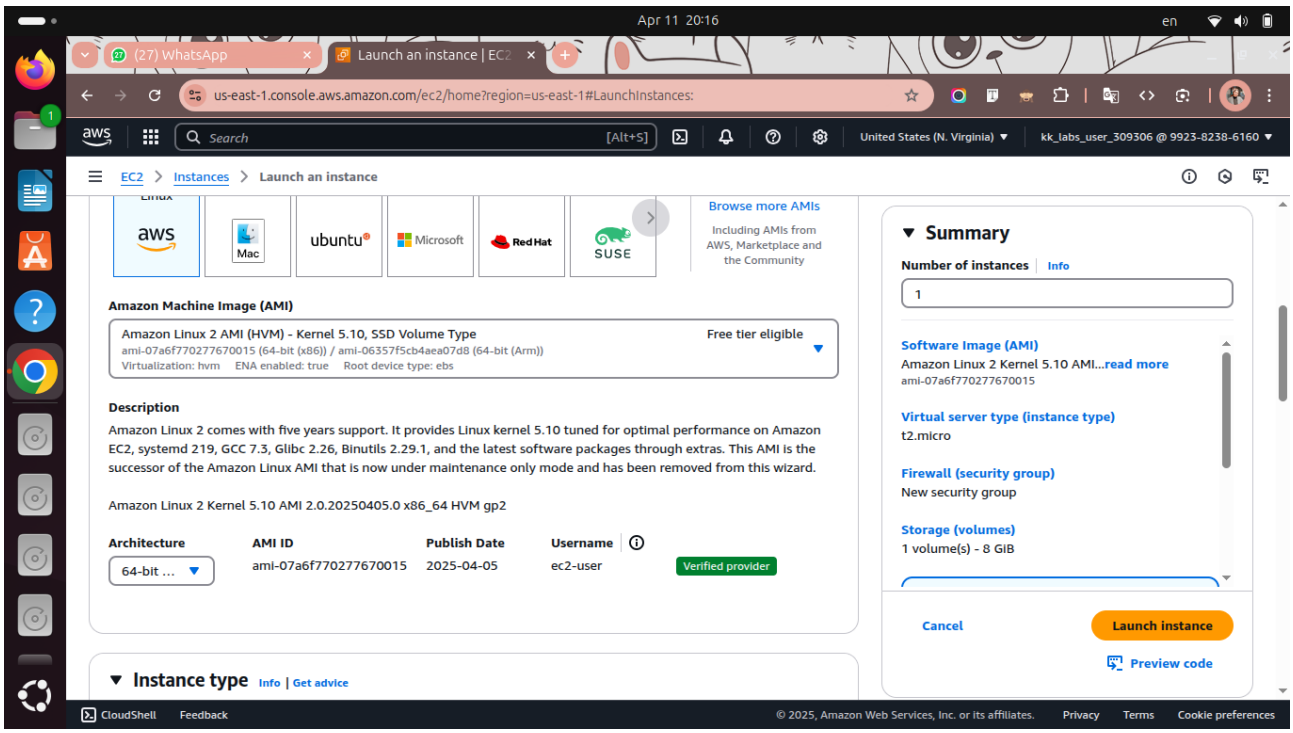
1-



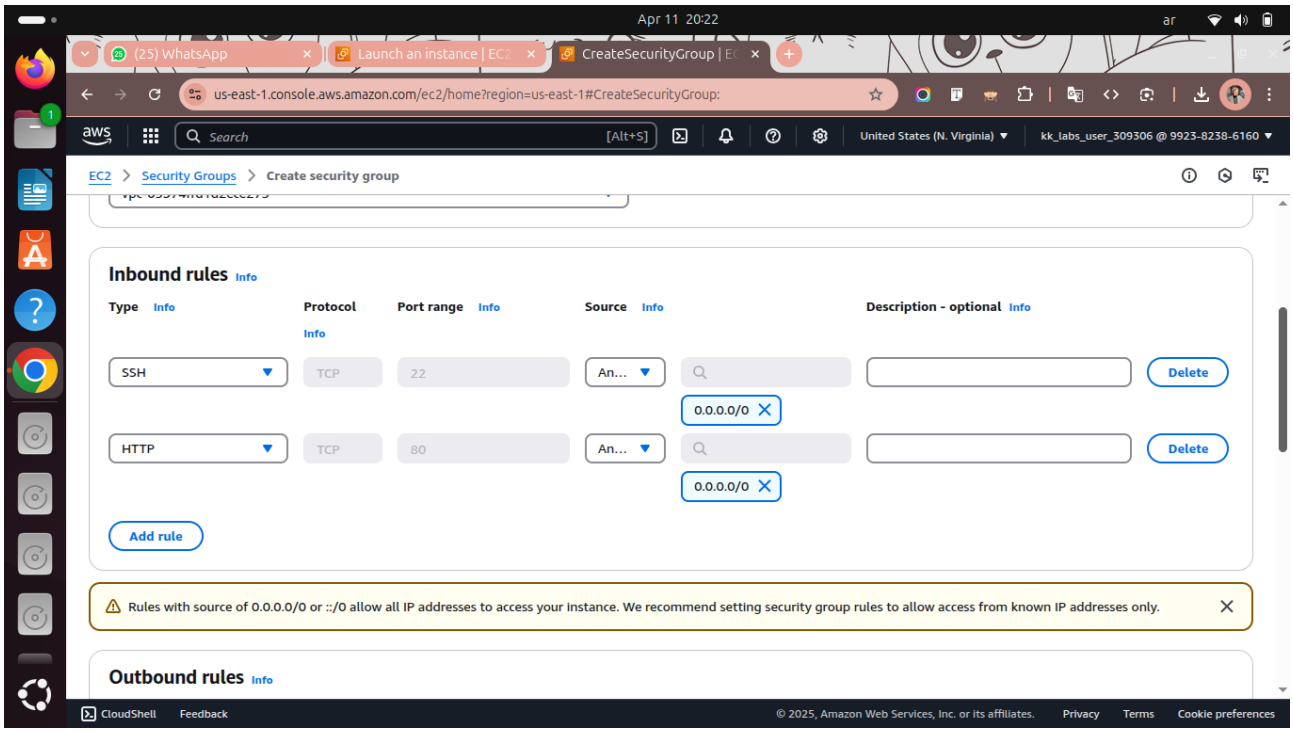
2-



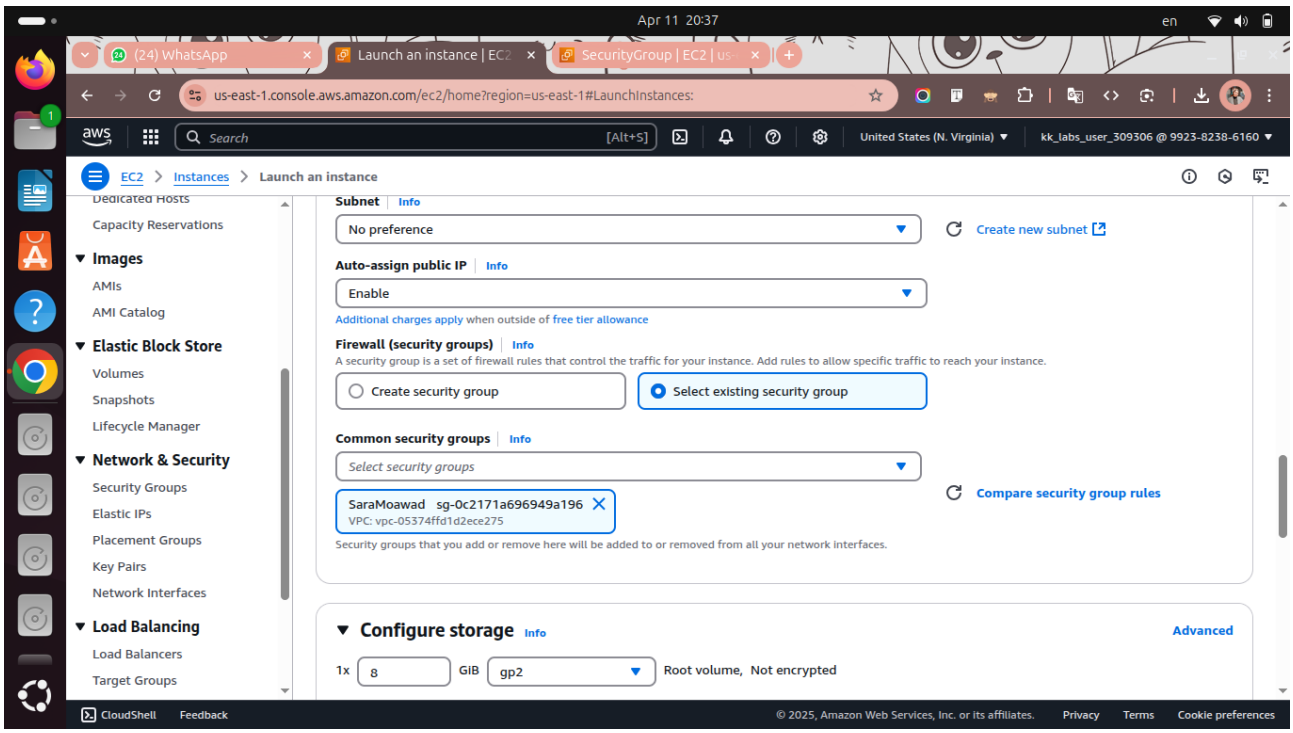
3-


Launch an instance | EC2
us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:
EC2 > Instances > Launch an instance
Browse more AMIs
Including AMIs from AWS, Marketplace and the Community
Amazon Machine Image (AMI)
Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type
Free tier eligible
Description
Amazon Linux 2 comes with five years support. It provides Linux kernel 5.10 tuned for optimal performance on Amazon EC2, systemd 219, GCC 7.3, Glibc 2.26, Binutils 2.29.1, and the latest software packages through extras. This AMI is the successor of the Amazon Linux AMI that is now under maintenance only mode and has been removed from this wizard.
Amazon Linux 2 Kernel 5.10 AMI 2.0.20250405.0 x86_64 HVM gp2
Architecture
AMI ID
Publish Date
Username
ami-07a6f770277670015
2025-04-05
ec2-user
Verified provider
Instance type
Summary
Number of instances
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
Virtual server type (instance type)
t2.micro
Firewall (security group)
New security group
Storage (volumes)
1 volume(s) - 8 GiB
Cancel
Launch instance
Preview code

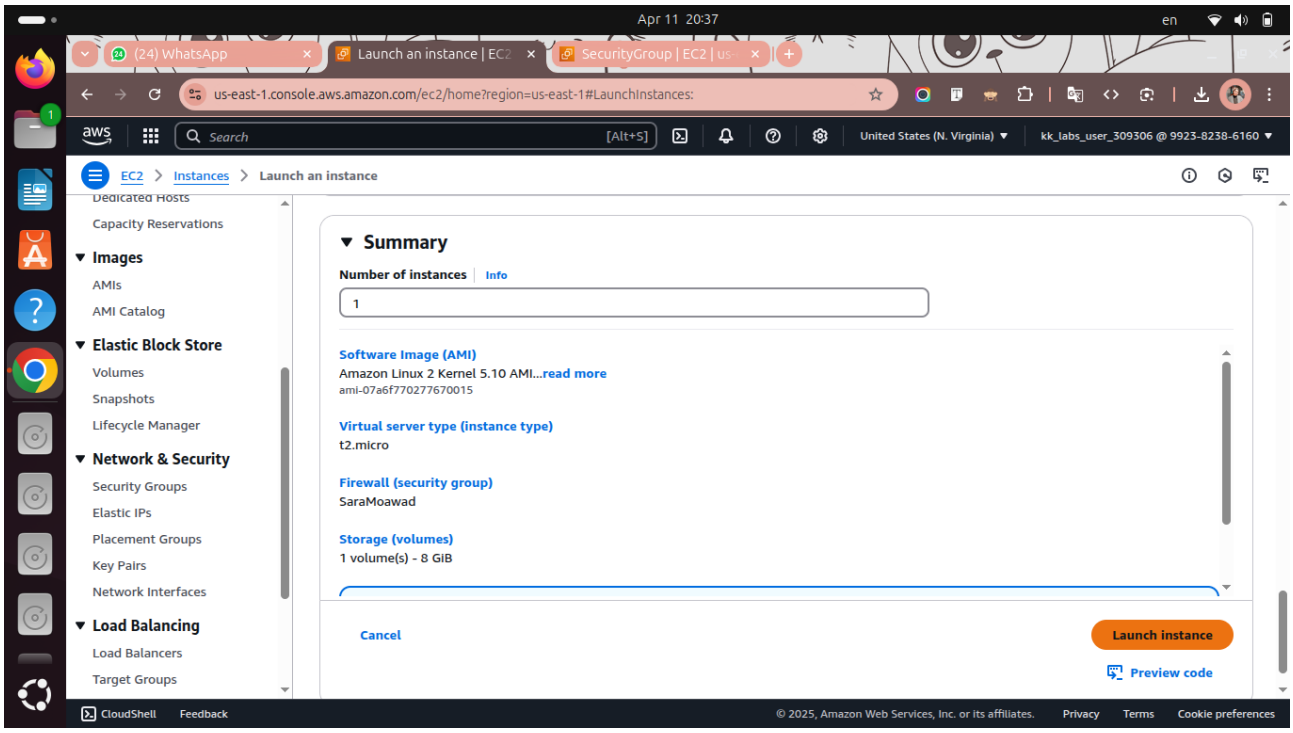
4-


CreateSecurityGroup | EC
us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#CreateSecurityGroup:
EC2 > Security Groups > Create security group
Inbound rules
Type
Protocol
Port range
Source
Description - optional
SSH
TCP
22
0.0.0.0/0
HTTP
TCP
80
0.0.0.0/0
Delete
Add rule
Rules with source of 0.0.0.0/0 or ::/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.
Outbound rules

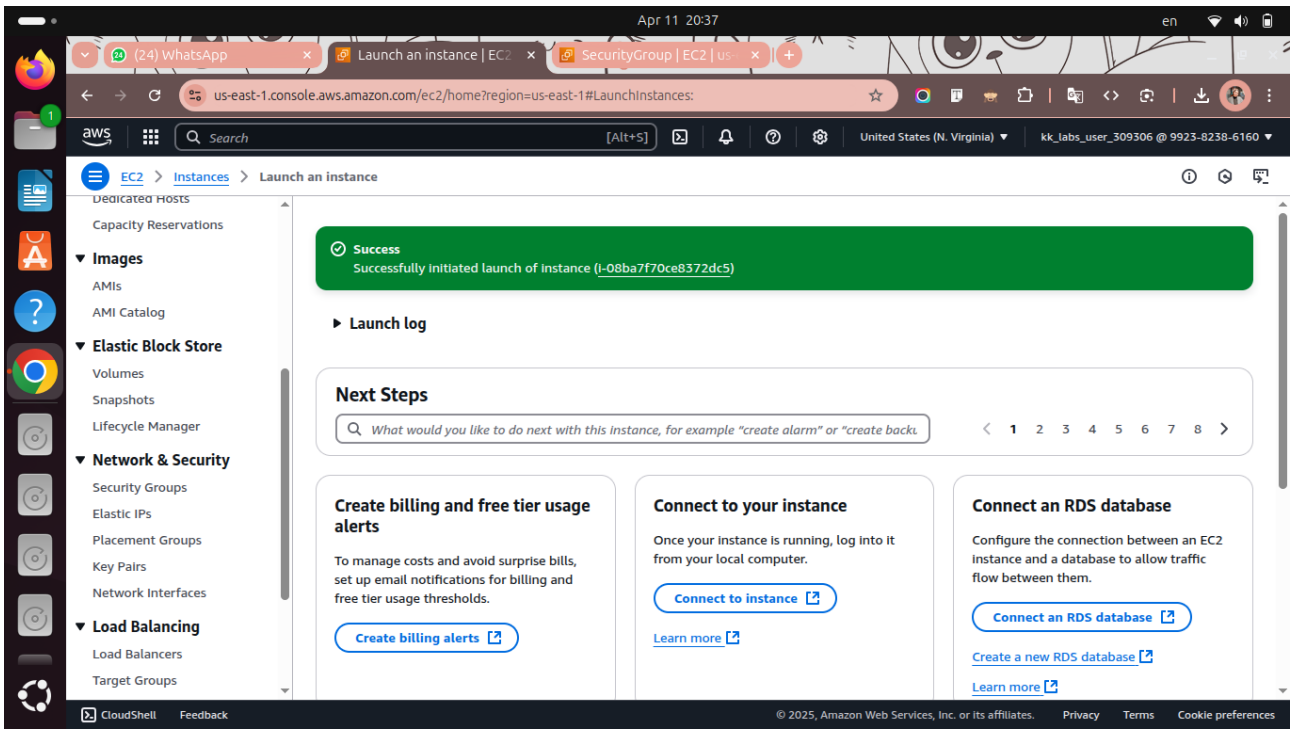
5-


Apr 11 20:37
en
(24) WhatsApp
Launch an instance | EC2
SecurityGroup | EC2 | us-
us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:
aws
Search
[Alt+S]
United States (N. Virginia)
kk_labs_user_309306 @ 9923-8238-6160
EC2 > Instances > Launch an instance
Dedicated Hosts
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Elastic IPs
Placement Groups
Key Pairs
Network Interfaces
Load Balancing
Load Balancers
Target Groups
Subnet Info
No preference
Create new subnet
Auto-assign public IP Info
Enable
Additional charges apply when outside of free tier allowance
Firewall (security groups) Info
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.
Create security group
Select existing security group
Common security groups Info
Select security groups
SaraMoawad sg-0c2171a696949a196
VPC: vpc-05374ffd1d2ece275
Compare security group rules
Security groups that you add or remove here will be added to or removed from all your network interfaces.
Configure storage Info
Advanced
1x
8
GiB
gp2
Root volume, Not encrypted
CloudShell
Feedback
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

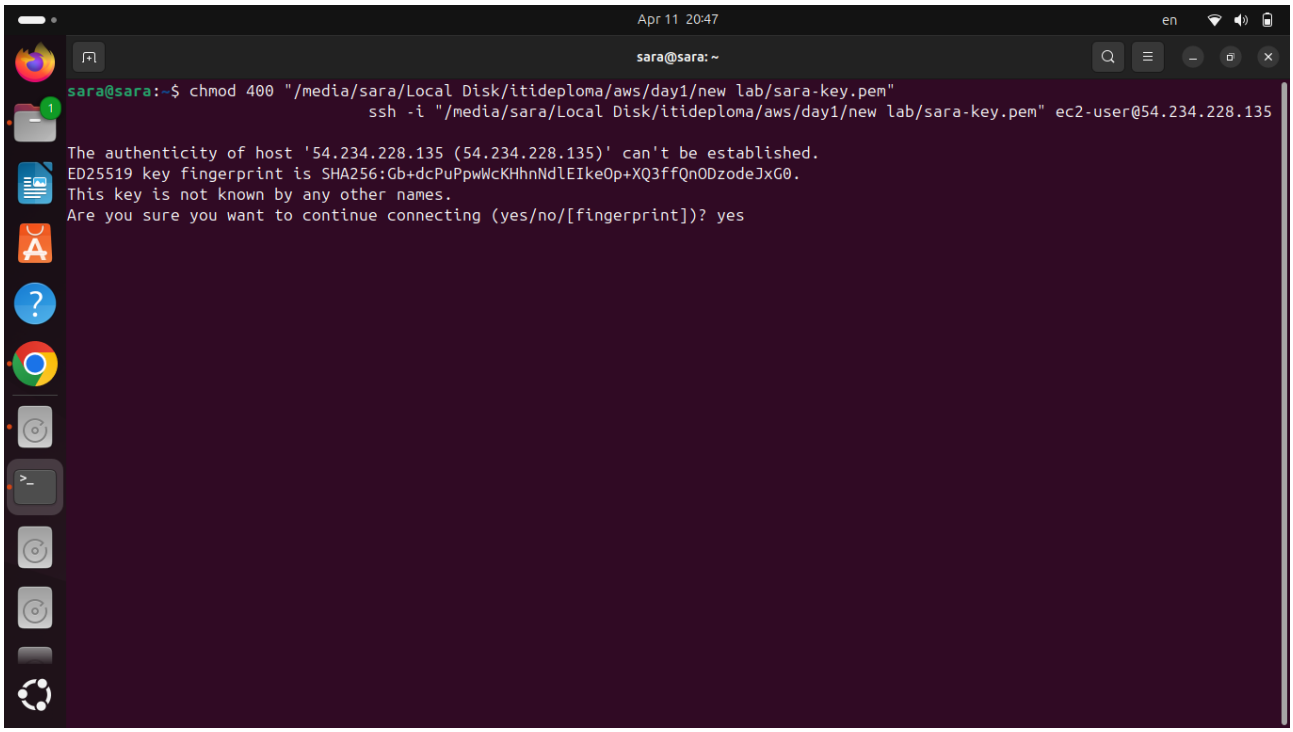
7-


Apr 11 20:37
en
(24) WhatsApp
Launch an instance | EC2
SecurityGroup | EC2 | us-
us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:
aws
Search
[Alt+S]
United States (N. Virginia)
kk_labs_user_309306 @ 9923-8238-6160
EC2 > Instances > Launch an instance
Dedicated Hosts
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Elastic IPs
Placement Groups
Key Pairs
Network Interfaces
Load Balancing
Load Balancers
Target Groups
Summary
Number of instances Info
1
Software Image (AMI)
Amazon Linux 2 Kernel 5.10 AMI...read more
ami-07a6f770277670015
Virtual server type (instance type)
t2.micro
Firewall (security group)
SaraMoawad
Storage (volumes)
1 volume(s) - 8 GiB
Cancel
Launch instance
Preview code
CloudShell
Feedback
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

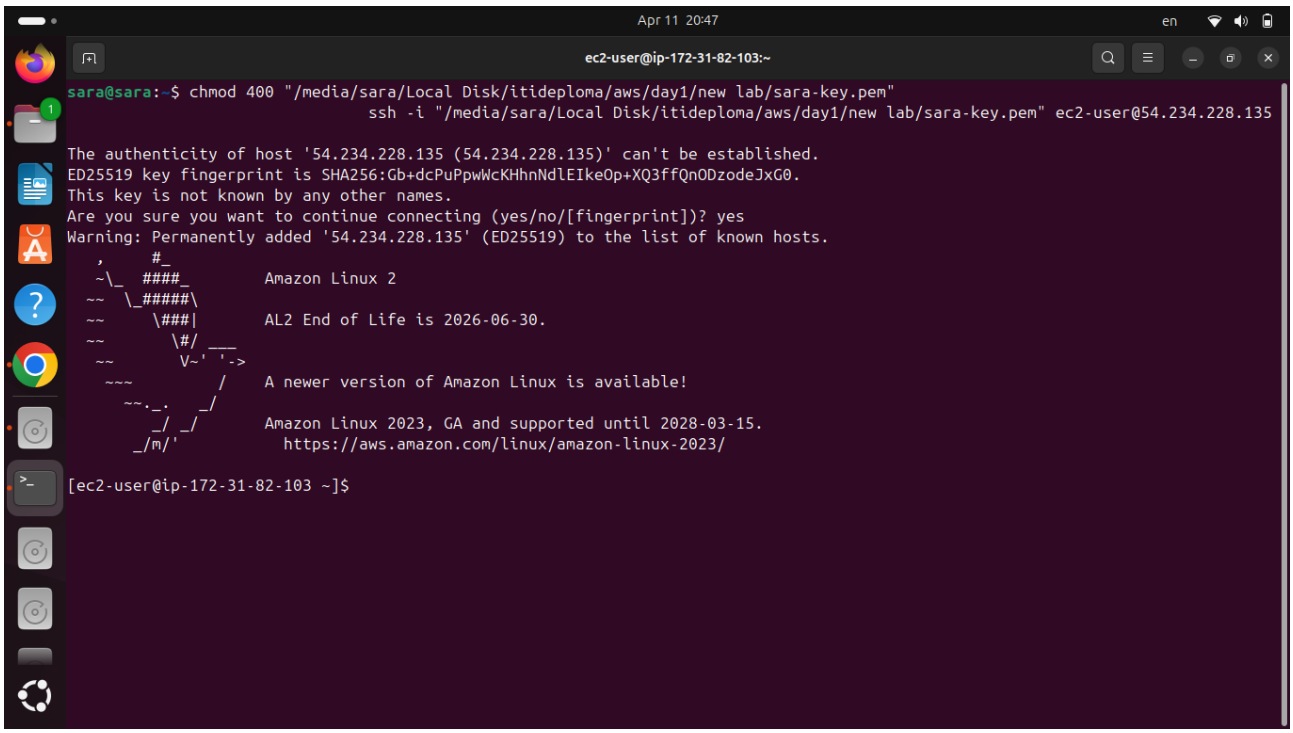
8-


Apr 11 20:37
en
(24) WhatsApp
Launch an instance | EC2
SecurityGroup | EC2 | us-
us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:
aws
Search
[Alt+S]
United States (N. Virginia)
kk_labs_user_309306 @ 9923-8238-6160
EC2 > Instances > Launch an instance
Dedicated Hosts
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Security Groups
Elastic IPs
Placement Groups
Key Pairs
Network Interfaces
Load Balancing
Load Balancers
Target Groups
Success
Successfully initiated launch of instance (i-08ba7f70ce8372dc5)
Launch log
Next Steps
What would you like to do next with this instance, for example "create alarm" or "create backu
1 2 3 4 5 6 7 8
Create billing and free tier usage alerts
To manage costs and avoid surprise bills, set up email notifications for billing and free tier usage thresholds.
Create billing alerts
Connect to your instance
Once your instance is running, log into it from your local computer.
Connect to instance
Learn more
Connect an RDS database
Configure the connection between an EC2 instance and a database to allow traffic flow between them.
Connect an RDS database
Create a new RDS database
Learn more
CloudShell
Feedback
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences

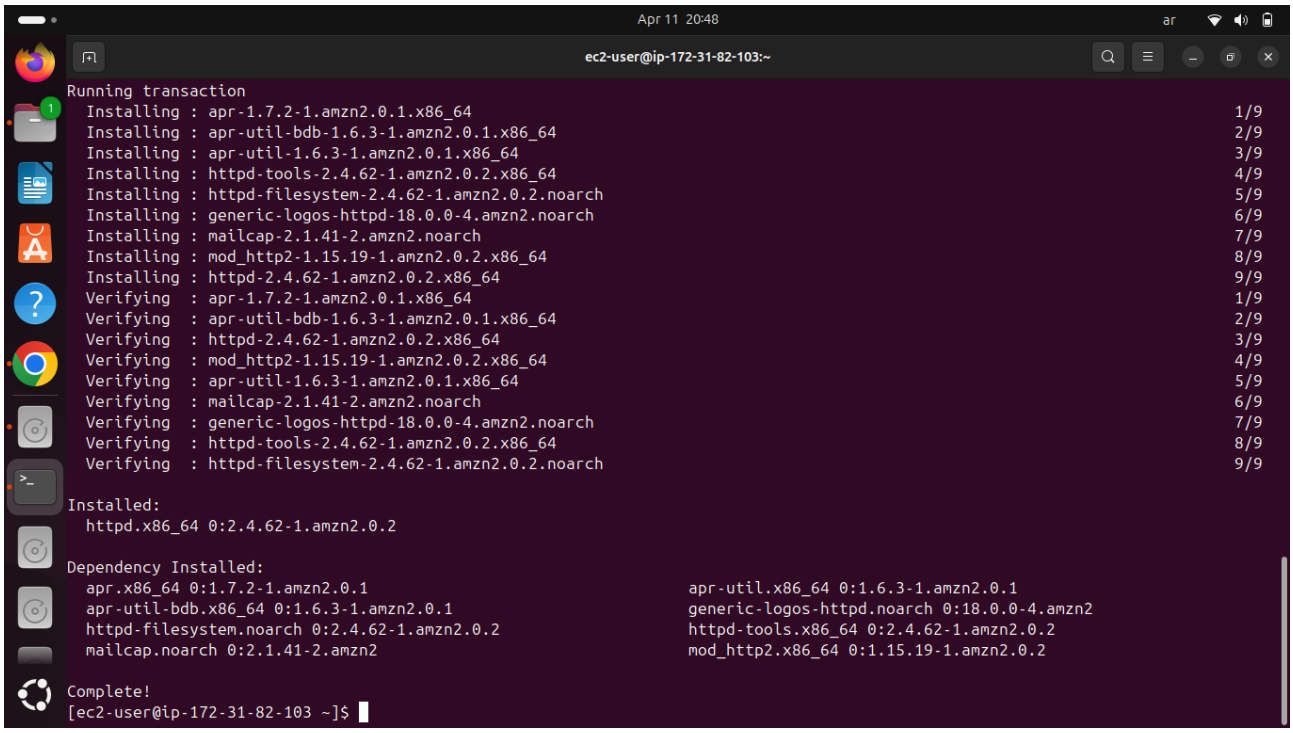
9-


Apr 11 20:47
en
sara@sara: ~
sara@sara:~$ chmod 400 "/media/sara/Local Disk/itideploma/aws/day1/new lab/sara-key.pem"
ssh -i "/media/sara/Local Disk/itideploma/aws/day1/new lab/sara-key.pem" ec2-user@54.234.228.135
The authenticity of host '54.234.228.135 (54.234.228.135)' can't be established.
ED25519 key fingerprint is SHA256:Gb+dcPuPpwWcKHhnNdlEIkeOp+XQ3ffQnODzodeJxG0.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes

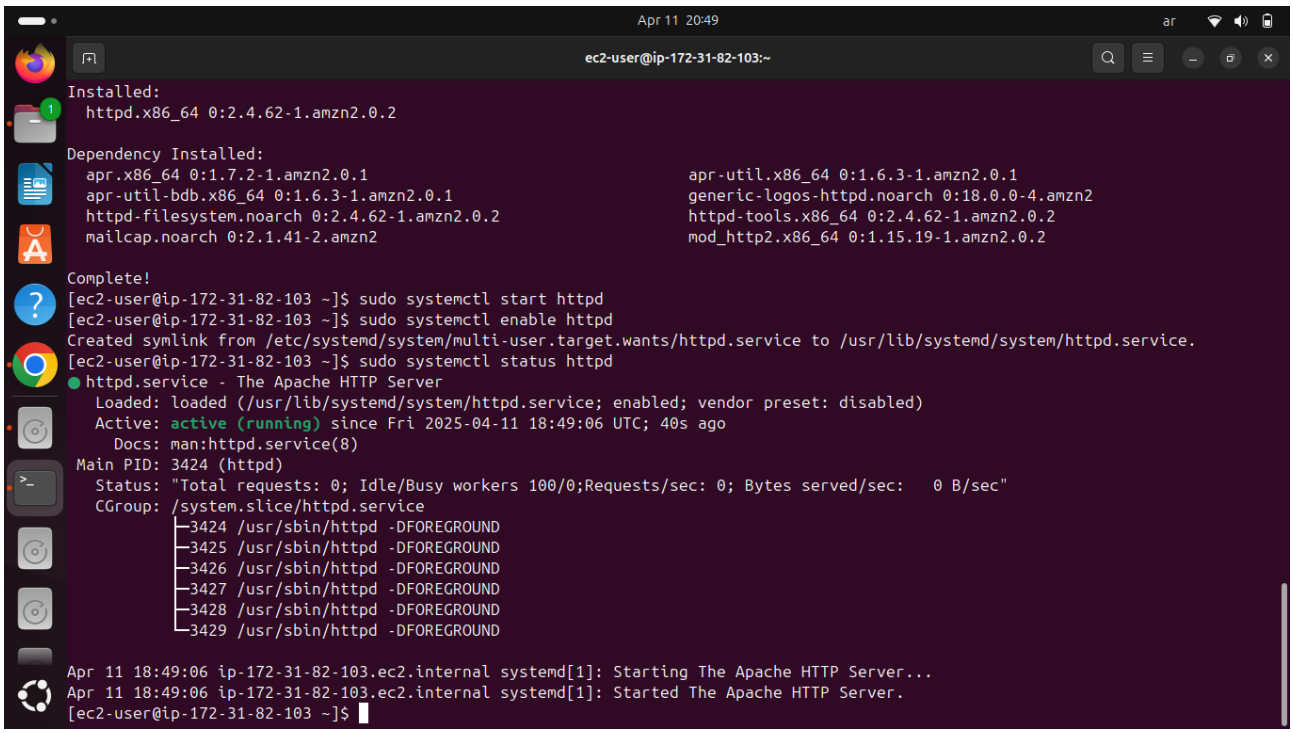
10-


Apr 11 20:47
en
ec2-user@ip-172-31-82-103:~
sara@sara:~$ chmod 400 "/media/sara/Local Disk/itideploma/aws/day1/new lab/sara-key.pem"
ssh -i "/media/sara/Local Disk/itideploma/aws/day1/new lab/sara-key.pem" ec2-user@54.234.228.135
The authenticity of host '54.234.228.135 (54.234.228.135)' can't be established.
ED25519 key fingerprint is SHA256:Gb+dcPuPpwWcKHhnNdlEIkeOp+XQ3ffQnODzodeJxG0.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '54.234.228.135' (ED25519) to the list of known hosts.
Amazon Linux 2
AL2 End of Life is 2026-06-30.
A newer version of Amazon Linux is available!
Amazon Linux 2023, GA and supported until 2028-03-15.
https://aws.amazon.com/linux/amazon-linux-2023/
[ec2-user@ip-172-31-82-103 ~]$

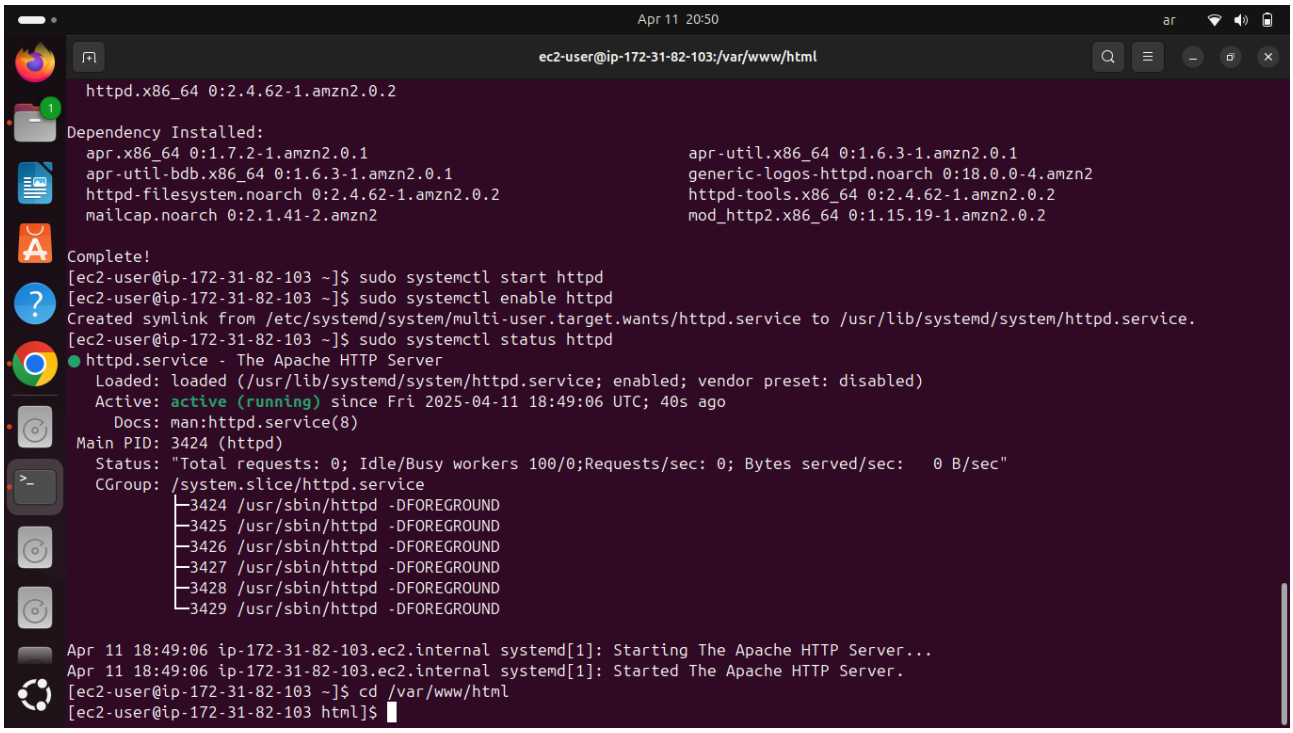
11-


Apr 11 20:48
ar
ec2-user@ip-172-31-82-103:~
Running transaction
Installing : apr-1.7.2-1.amzn2.0.1.x86_64 1/9
Installing : apr-util-bdb-1.6.3-1.amzn2.0.1.x86_64 2/9
Installing : apr-util-1.6.3-1.amzn2.0.1.x86_64 3/9
Installing : httpd-tools-2.4.62-1.amzn2.0.2.x86_64 4/9
Installing : httpd-filesystem-2.4.62-1.amzn2.0.2.noarch 5/9
Installing : generic-logos-httpd-18.0.0-4.amzn2.noarch 6/9
Installing : mailcap-2.1.41-2.amzn2.noarch 7/9
Installing : mod_http2-1.15.19-1.amzn2.0.2.x86_64 8/9
Installing : httpd-2.4.62-1.amzn2.0.2.x86_64 9/9
Verifying : apr-1.7.2-1.amzn2.0.1.x86_64 1/9
Verifying : apr-util-bdb-1.6.3-1.amzn2.0.1.x86_64 2/9
Verifying : httpd-2.4.62-1.amzn2.0.2.x86_64 3/9
Verifying : mod_http2-1.15.19-1.amzn2.0.2.x86_64 4/9
Verifying : apr-util-1.6.3-1.amzn2.0.1.x86_64 5/9
Verifying : mailcap-2.1.41-2.amzn2.noarch 6/9
Verifying : generic-logos-httpd-18.0.0-4.amzn2.noarch 7/9
Verifying : httpd-tools-2.4.62-1.amzn2.0.2.x86_64 8/9
Verifying : httpd-filesystem-2.4.62-1.amzn2.0.2.noarch 9/9
Installed:
httpd.x86_64 0:2.4.62-1.amzn2.0.2
Dependency Installed:
apr.x86_64 0:1.7.2-1.amzn2.0.1
apr-util.x86_64 0:1.6.3-1.amzn2.0.1
apr-util-bdb.x86_64 0:1.6.3-1.amzn2.0.1
generic-logos-httpd.noarch 0:18.0.0-4.amzn2
httpd-filesystem.noarch 0:2.4.62-1.amzn2.0.2
httpd-tools.x86_64 0:2.4.62-1.amzn2.0.2
mailcap.noarch 0:2.1.41-2.amzn2
mod_http2.x86_64 0:1.15.19-1.amzn2.0.2
Complete!
[ec2-user@ip-172-31-82-103 ~]$

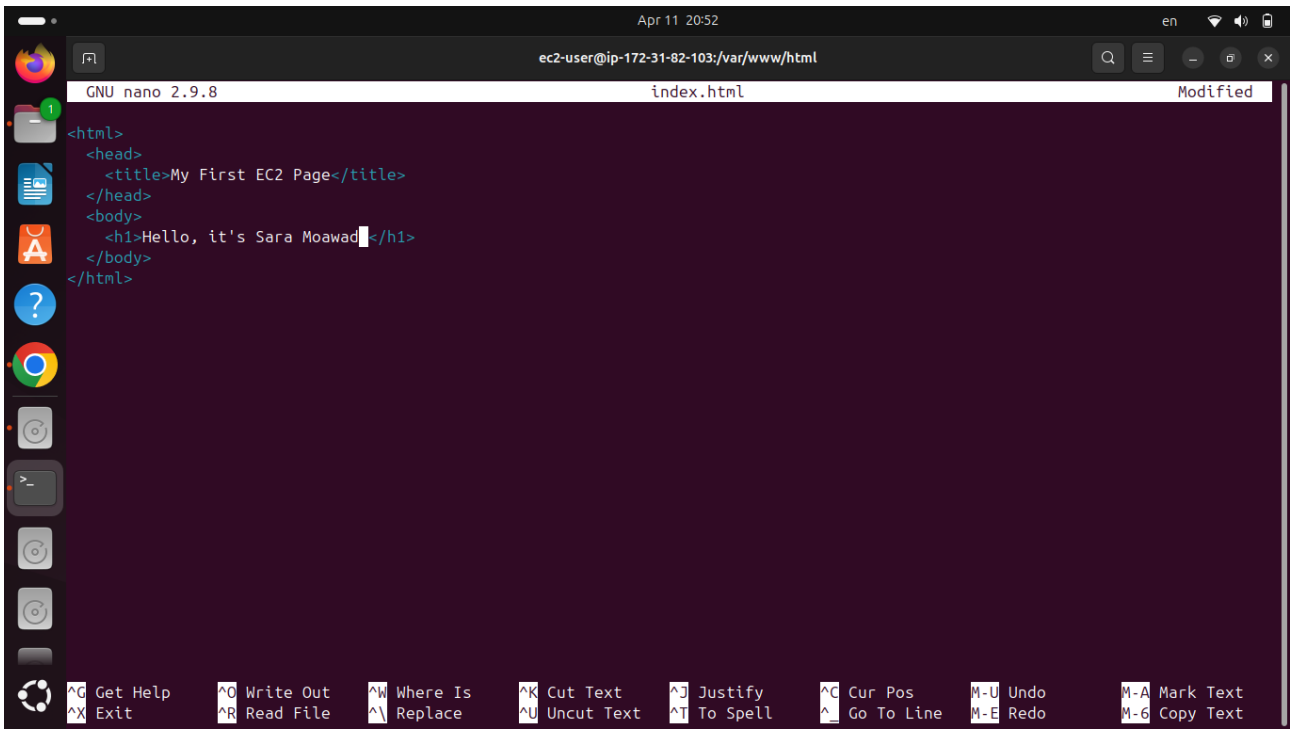
12-


Apr 11 20:49
ar
ec2-user@ip-172-31-82-103:~
Installed:
httpd.x86_64 0:2.4.62-1.amzn2.0.2
Dependency Installed:
apr.x86_64 0:1.7.2-1.amzn2.0.1
apr-util.x86_64 0:1.6.3-1.amzn2.0.1
apr-util-bdb.x86_64 0:1.6.3-1.amzn2.0.1
generic-logos-httpd.noarch 0:18.0.0-4.amzn2
httpd-filesystem.noarch 0:2.4.62-1.amzn2.0.2
httpd-tools.x86_64 0:2.4.62-1.amzn2.0.2
mailcap.noarch 0:2.1.41-2.amzn2
mod_http2.x86_64 0:1.15.19-1.amzn2.0.2
Complete!
[ec2-user@ip-172-31-82-103 ~]$ sudo systemctl start httpd
[ec2-user@ip-172-31-82-103 ~]$ sudo systemctl enable httpd
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.
[ec2-user@ip-172-31-82-103 ~]$ sudo systemctl status httpd
httpd.service - The Apache HTTP Server
Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor preset: disabled)
Active: active (running) since Fri 2025-04-11 18:49:06 UTC; 40s ago
Docs: man:httpd.service(8)
Main PID: 3424 (httpd)
Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes served/sec: 0 B/sec"
CGroup: /system.slice/httpd.service
├─3424 /usr/sbin/httpd -DFOREGROUND
├─3425 /usr/sbin/httpd -DFOREGROUND
├─3426 /usr/sbin/httpd -DFOREGROUND
├─3427 /usr/sbin/httpd -DFOREGROUND
├─3428 /usr/sbin/httpd -DFOREGROUND
└─3429 /usr/sbin/httpd -DFOREGROUND
Apr 11 18:49:06 ip-172-31-82-103.ec2.internal systemd[1]: Starting The Apache HTTP Server...
Apr 11 18:49:06 ip-172-31-82-103.ec2.internal systemd[1]: Started The Apache HTTP Server.
[ec2-user@ip-172-31-82-103 ~]$

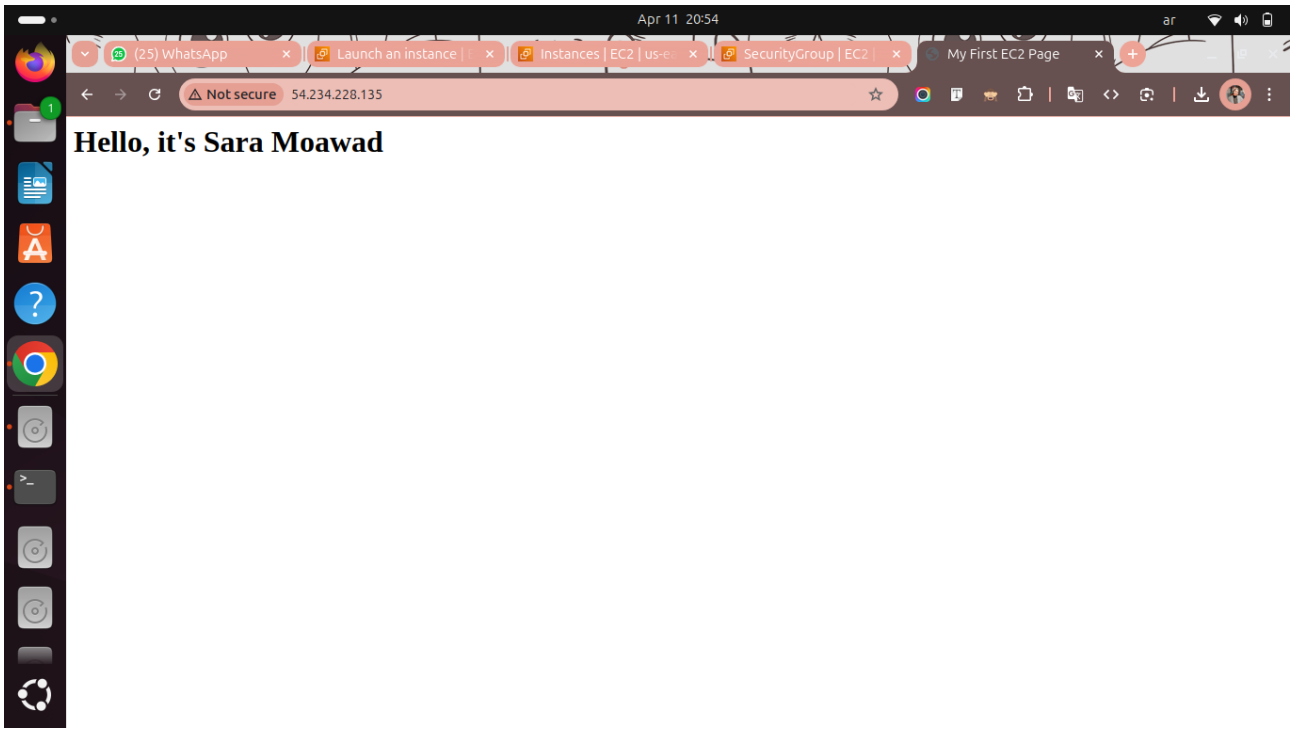
13-


Apr 11 20:50
ar
ec2-user@ip-172-31-82-103:/var/www/html
httpd.x86_64 0:2.4.62-1.amzn2.0.2
Dependency Installed:
apr.x86_64 0:1.7.2-1.amzn2.0.1
apr-util.x86_64 0:1.6.3-1.amzn2.0.1
apr-util-bdb.x86_64 0:1.6.3-1.amzn2.0.1
generic-logos-httpd.noarch 0:18.0.0-4.amzn2
httpd-filesystem.noarch 0:2.4.62-1.amzn2.0.2
httpd-tools.x86_64 0:2.4.62-1.amzn2.0.2
mailcap.noarch 0:2.1.41-2.amzn2
mod_http2.x86_64 0:1.15.19-1.amzn2.0.2
Complete!
[ec2-user@ip-172-31-82-103 ~]$ sudo systemctl start httpd
[ec2-user@ip-172-31-82-103 ~]$ sudo systemctl enable httpd
Created symlink from /etc/systemd/system/multi-user.target.wants/httpd.service to /usr/lib/systemd/system/httpd.service.
[ec2-user@ip-172-31-82-103 ~]$ sudo systemctl status httpd
httpd.service - The Apache HTTP Server
Loaded: loaded (/usr/lib/systemd/system/httpd.service; enabled; vendor preset: disabled)
Active: active (running) since Fri 2025-04-11 18:49:06 UTC; 40s ago
Docs: man:httpd.service(8)
Main PID: 3424 (httpd)
Status: "Total requests: 0; Idle/Busy workers 100/0;Requests/sec: 0; Bytes served/sec: 0 B/sec"
CGroup: /system.slice/httpd.service
├─3424 /usr/sbin/httpd -DFOREGROUND
├─3425 /usr/sbin/httpd -DFOREGROUND
├─3426 /usr/sbin/httpd -DFOREGROUND
├─3427 /usr/sbin/httpd -DFOREGROUND
├─3428 /usr/sbin/httpd -DFOREGROUND
└─3429 /usr/sbin/httpd -DFOREGROUND
Apr 11 18:49:06 ip-172-31-82-103.ec2.internal systemd[1]: Starting The Apache HTTP Server...
Apr 11 18:49:06 ip-172-31-82-103.ec2.internal systemd[1]: Started The Apache HTTP Server.
[ec2-user@ip-172-31-82-103 ~]$ cd /var/www/html
[ec2-user@ip-172-31-82-103 html]$

14-


Apr 11 20:52
en
ec2-user@ip-172-31-82-103:/var/www/html
GNU nano 2.9.8
index.html
Modified
<html>
<head>
<title>My First EC2 Page</title>
</head>
<body>
<h1>Hello, it's Sara Moawad</h1>
</body>
</html>
^G Get Help
^X Exit
^O Write Out
^R Read File
^W Where Is
^\ Replace
^K Cut Text
^U Uncut Text
^J Justify
^T To Spell
^C Cur Pos
^_ Go To Line
M-U Undo
M-E Redo
M-A Mark Text
M-6 Copy Text

15-


Apr 11 20:54
ar
(25) WhatsApp
Launch an instance
Instances | EC2 | us-e
SecurityGroup | EC2
My First EC2 Page
Not secure
54.234.228.135
Hello, it's Sara Moawad