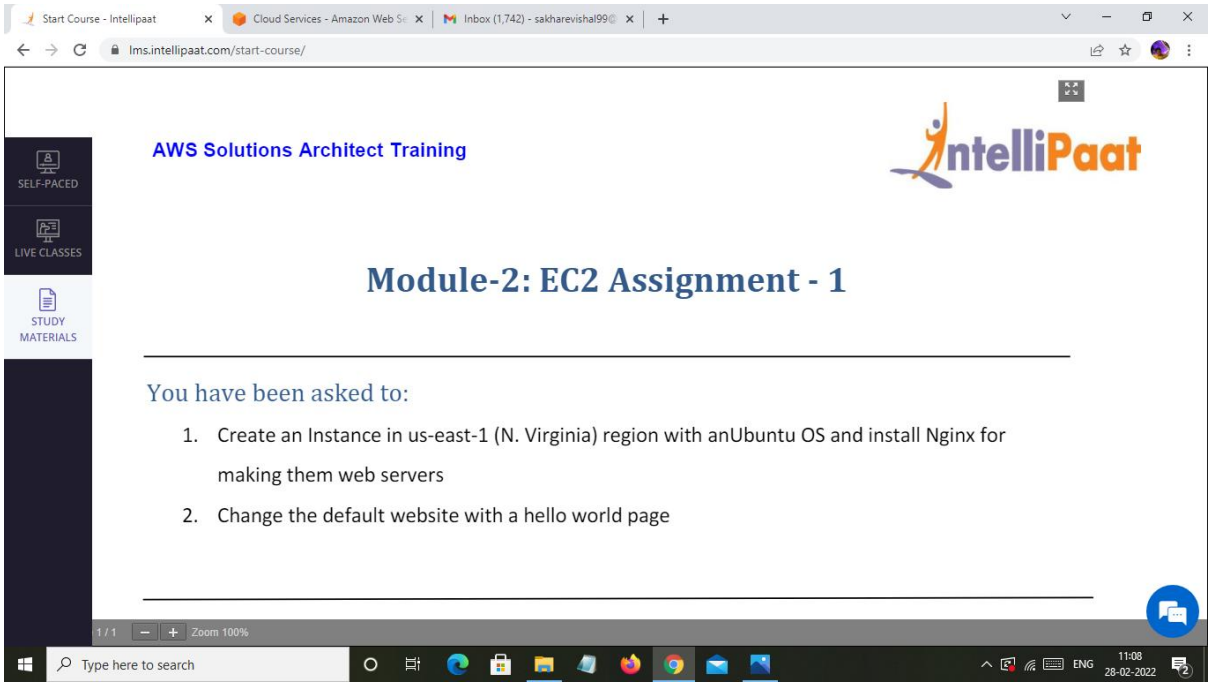
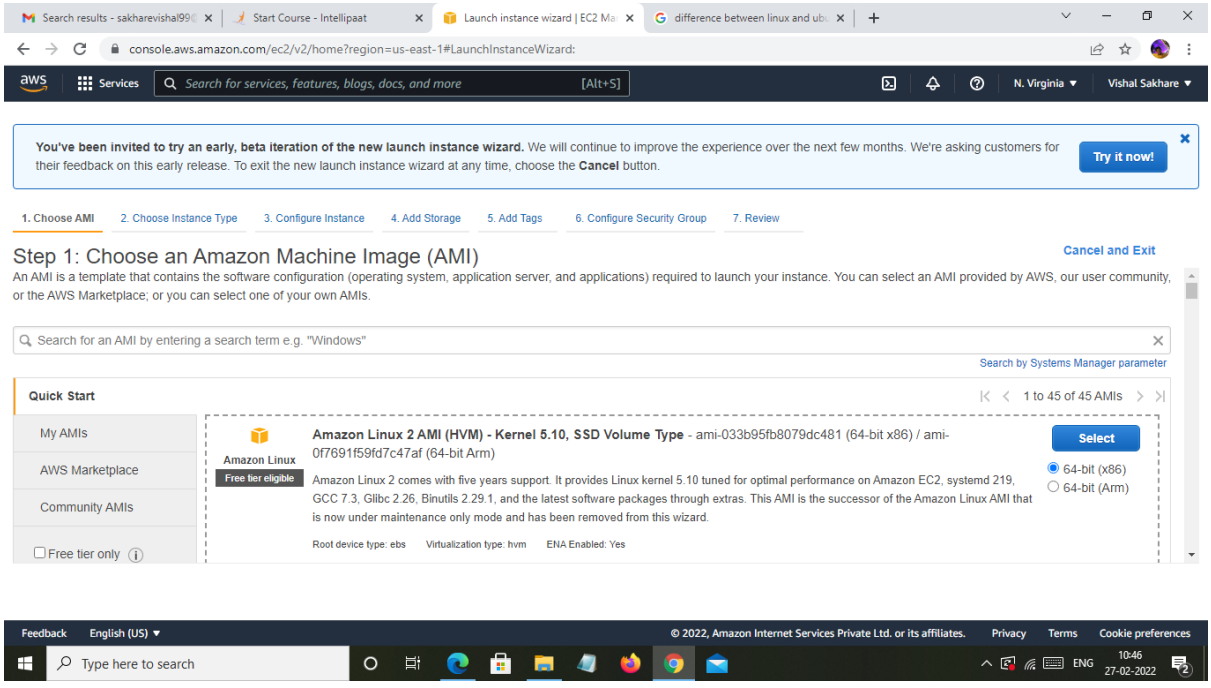
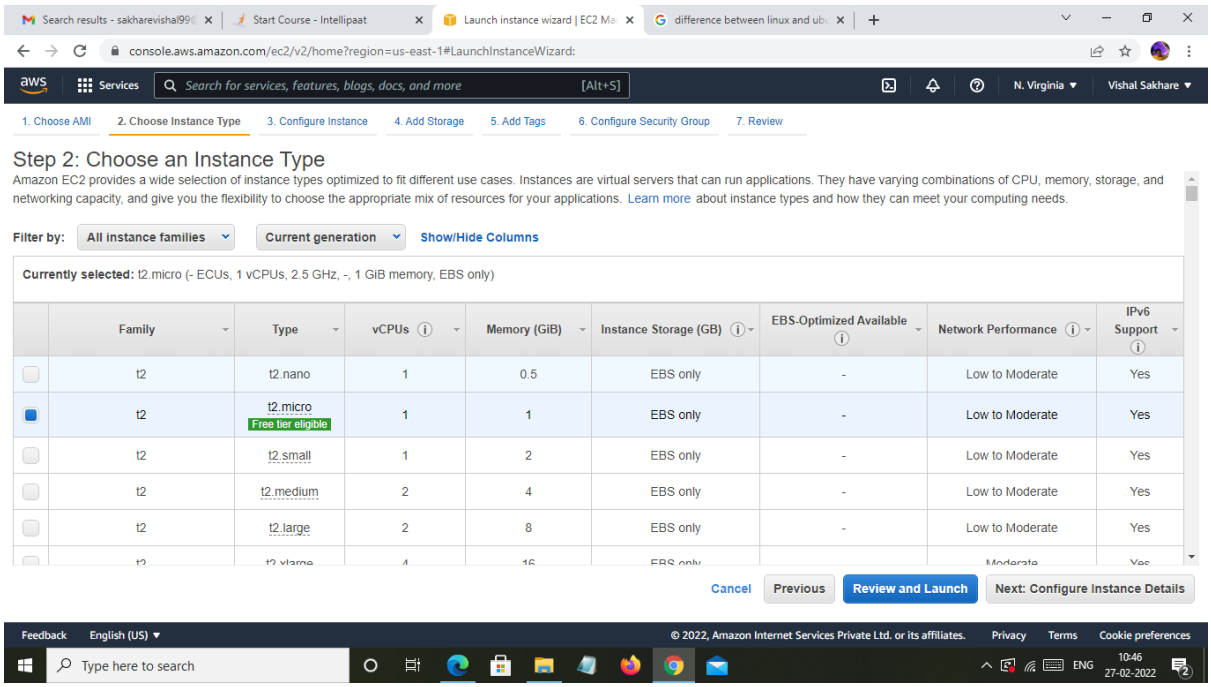
Module 2-EC2 Assignment-1



- Create an Instance in us-east-1 (N. Virginia) region with an Ubuntu OS

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Launch instance wizard | EC2 Ma
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console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard:
aws
Services
Search for services, features, blogs, docs, and more
[Alt+S]
N. Virginia
Vishal Sakhare
1. Choose AMI
2. Choose Instance Type
3. Configure Instance
4. Add Storage
5. Add Tags
6. Configure Security Group
7. Review
Step 2: Choose an Instance Type
Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instances are virtual servers that can run applications. They have varying combinations of CPU, memory, storage, and networking capacity, and give you the flexibility to choose the appropriate mix of resources for your applications. Learn more about instance types and how they can meet your computing needs.
Filter by:
All instance families
Current generation
Show/Hide Columns
Currently selected: t2.micro (- ECUs, 1 vCPUs, 2.5 GHz, -, 1 GiB memory, EBS only)
Family
Type
vCPUs
Memory (GiB)
Instance Storage (GB)
EBS-Optimized Available
Network Performance
IPv6 Support
t2 t2.nano 1 0.5 EBS only - Low to Moderate Yes
t2 t2.micro Free tier eligible 1 1 EBS only - Low to Moderate Yes
t2 t2.small 1 2 EBS only - Low to Moderate Yes
t2 t2.medium 2 4 EBS only - Low to Moderate Yes
t2 t2.large 2 8 EBS only - Low to Moderate Yes
Cancel
Previous
Review and Launch
Next: Configure Instance Details
Feedback
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ENG
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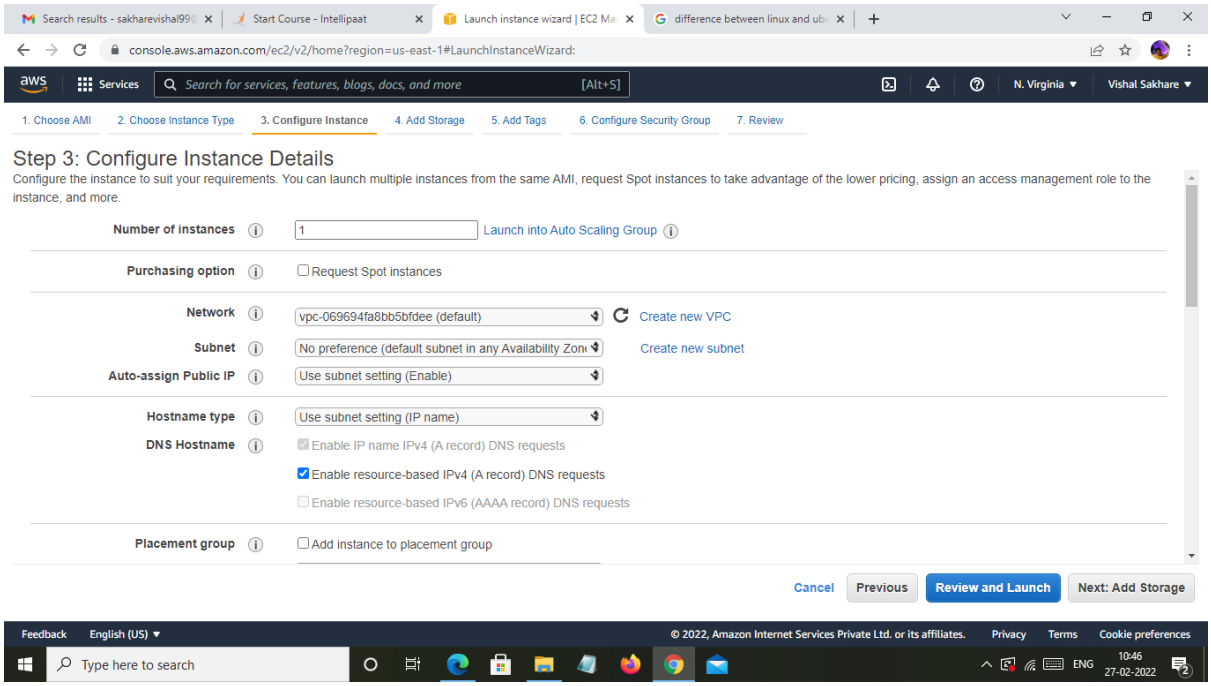
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1. Choose AMI
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Step 3: Configure Instance Details
Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.
Number of instances
1
Launch into Auto Scaling Group
Purchasing option
Request Spot instances
Network
vpc-069694fa8bb5bfdee (default)
Create new VPC
Subnet
No preference (default subnet in any Availability Zon
Create new subnet
Auto-assign Public IP
Use subnet setting (Enable)
Hostname type
Use subnet setting (IP name)
DNS Hostname
Enable IP name IPv4 (A record) DNS requests
Enable resource-based IPv4 (A record) DNS requests
Enable resource-based IPv6 (AAAA record) DNS requests
Placement group
Add instance to placement group
Cancel
Previous
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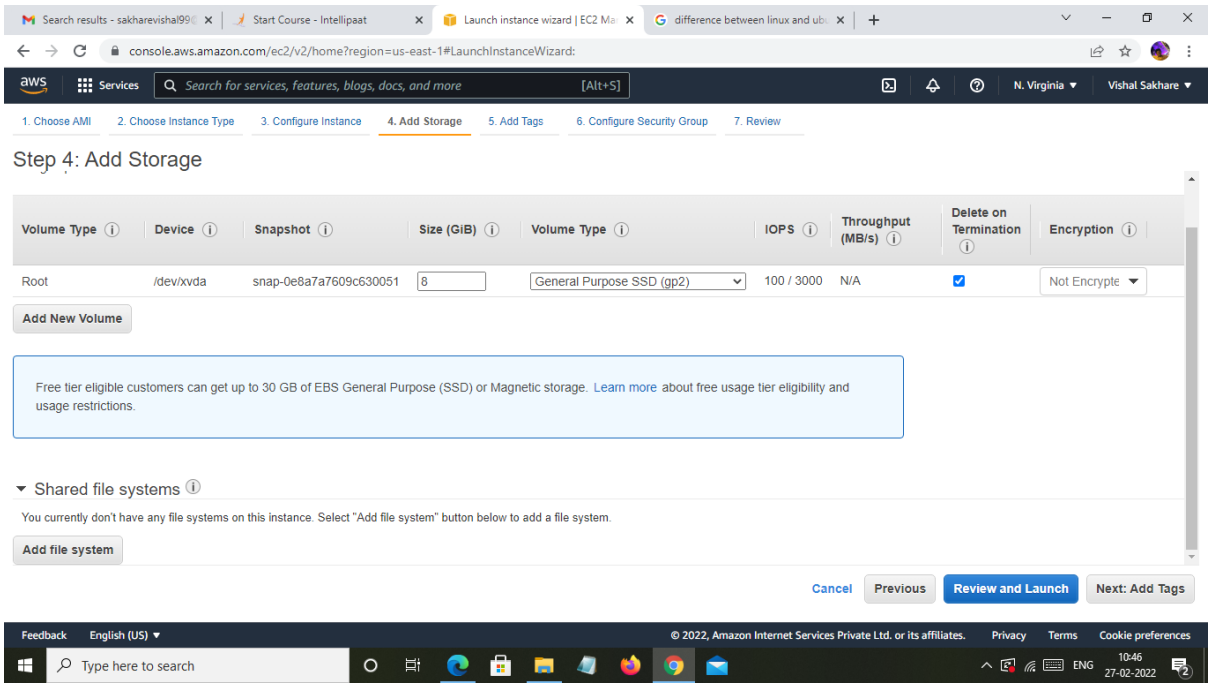
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Step 4: Add Storage
Volume Type
Device
Snapshot
Size (GiB)
Volume Type
IOPS
Throughput (MB/s)
Delete on Termination
Encryption
Root
/dev/xvda
snap-0e8a7a7609c630051
8
General Purpose SSD (gp2)
100 / 3000
N/A
Not Encrypte
Add New Volume
Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage. Learn more about free usage tier eligibility and usage restrictions.
Shared file systems
You currently don't have any file systems on this instance. Select "Add file system" button below to add a file system.
Add file system
Cancel
Previous
Review and Launch
Next: Add Tags
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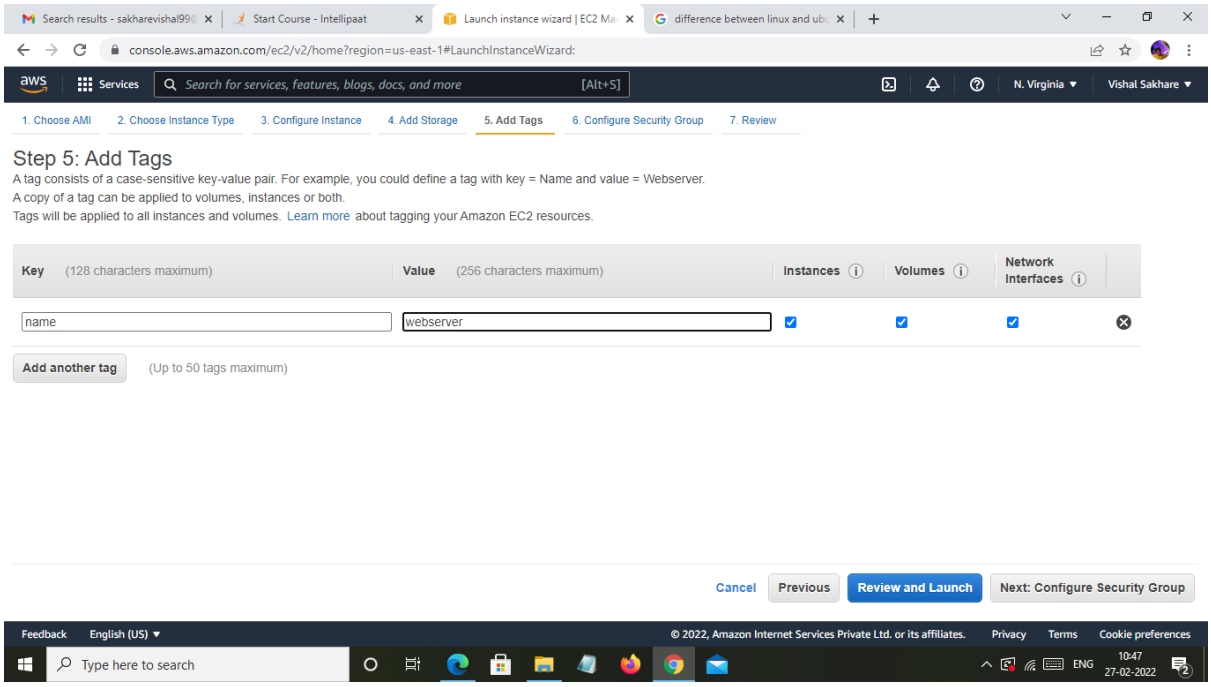
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Step 5: Add Tags
A tag consists of a case-sensitive key-value pair. For example, you could define a tag with key = Name and value = Webserver.
A copy of a tag can be applied to volumes, instances or both.
Tags will be applied to all instances and volumes. Learn more about tagging your Amazon EC2 resources.
Key (128 characters maximum)
Value (256 characters maximum)
Instances
Volumes
Network Interfaces
name
webserver
Add another tag
(Up to 50 tags maximum)
Cancel
Previous
Review and Launch
Next: Configure Security Group
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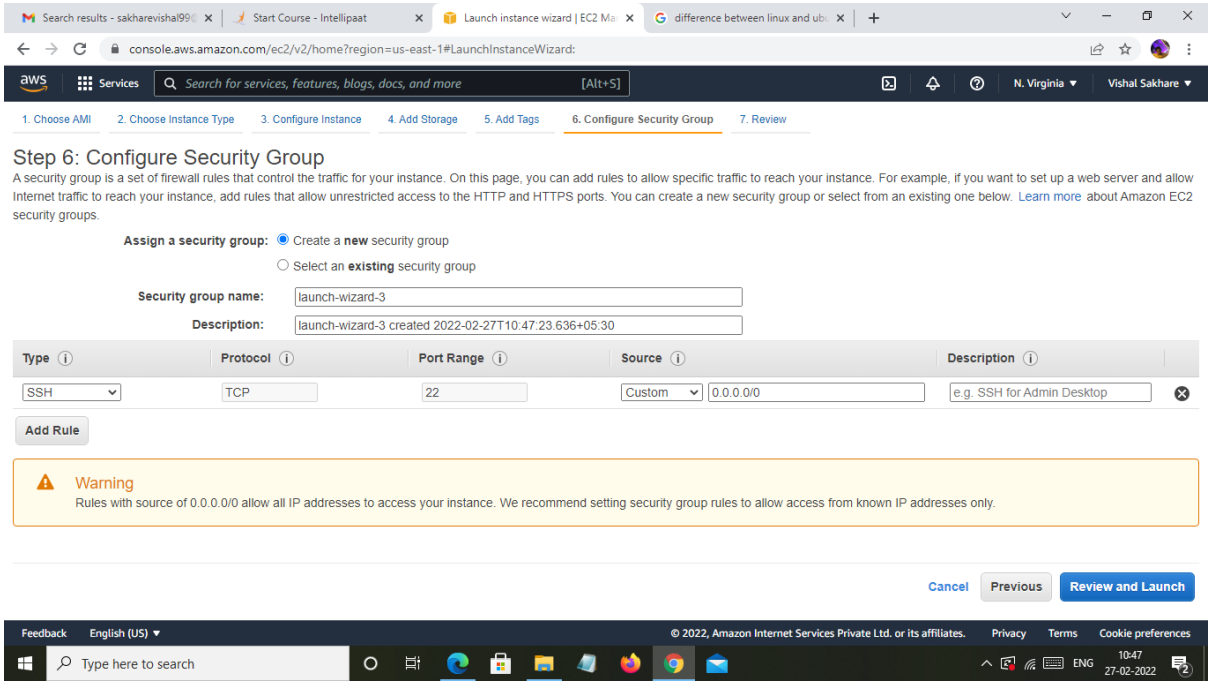
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Step 6: Configure Security Group
A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. Learn more about Amazon EC2 security groups.
Assign a security group:
Create a new security group
Select an existing security group
Security group name:
launch-wizard-3
Description:
launch-wizard-3 created 2022-02-27T10:47:23.636+05:30
Type
Protocol
Port Range
Source
Description
SSH
TCP
22
Custom
0.0.0.0/0
e.g. SSH for Admin Desktop
Add Rule
Warning
Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.
Cancel
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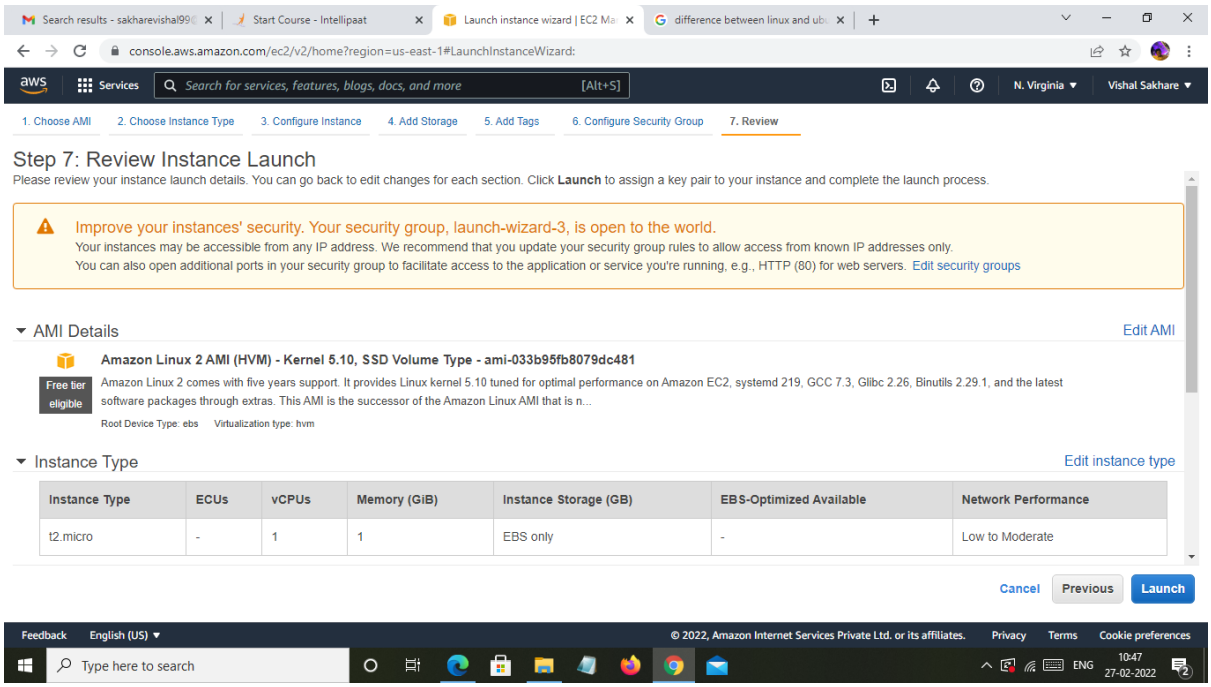
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Step 7: Review Instance Launch
Please review your instance launch details. You can go back to edit changes for each section. Click Launch to assign a key pair to your instance and complete the launch process.
Improve your instances' security. Your security group, launch-wizard-3, is open to the world.
Your instances may be accessible from any IP address. We recommend that you update your security group rules to allow access from known IP addresses only.
You can also open additional ports in your security group to facilitate access to the application or service you're running, e.g., HTTP (80) for web servers. Edit security groups
AMI Details
Edit AMI
Amazon Linux 2 AMI (HVM) - Kernel 5.10, SSD Volume Type - ami-033b95fb8079dc481
Free tier eligible
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 n...
Root Device Type: ebs
Virtualization type: hvm
Instance Type
Edit instance type
Instance Type
ECUs
vCPUs
Memory (GiB)
Instance Storage (GB)
EBS-Optimized Available
Network Performance
t2.micro
-
1
1
EBS only
-
Low to Moderate
Cancel
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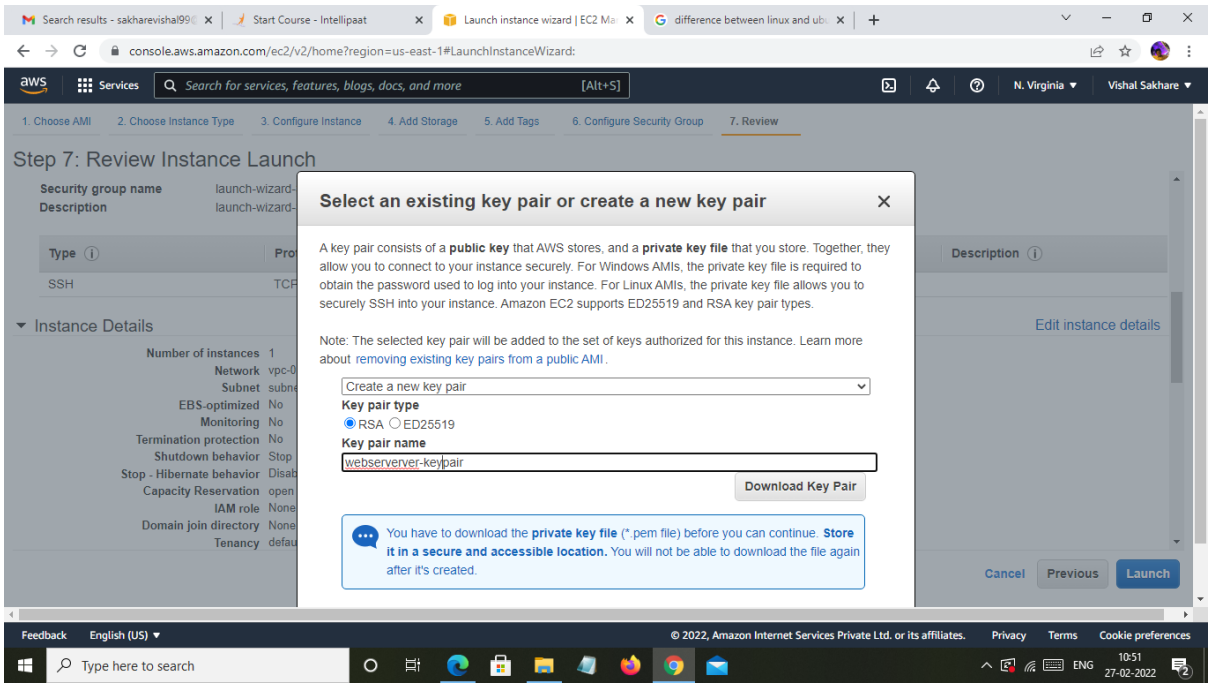
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7. Review
Step 7: Review Instance Launch
Security group name
Description
Type
SSH
Description
Instance Details
Edit instance details
Number of instances
Network
Subnet
EBS-optimized
Monitoring
Termination protection
Shutdown behavior
Stop - Hibernate behavior
Capacity Reservation
IAM role
Domain join directory
Tenancy
Select an existing key pair or create a new key pair
A key pair consists of a public key that AWS stores, and a private key file that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance. Amazon EC2 supports ED25519 and RSA key pair types.
Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about removing existing key pairs from a public AMI.
Create a new key pair
Key pair type
RSA
ED25519
Key pair name
webserverver-keypair
Download Key Pair
You have to download the private key file (*.pem file) before you can continue. Store it in a secure and accessible location. You will not be able to download the file again after it's created.
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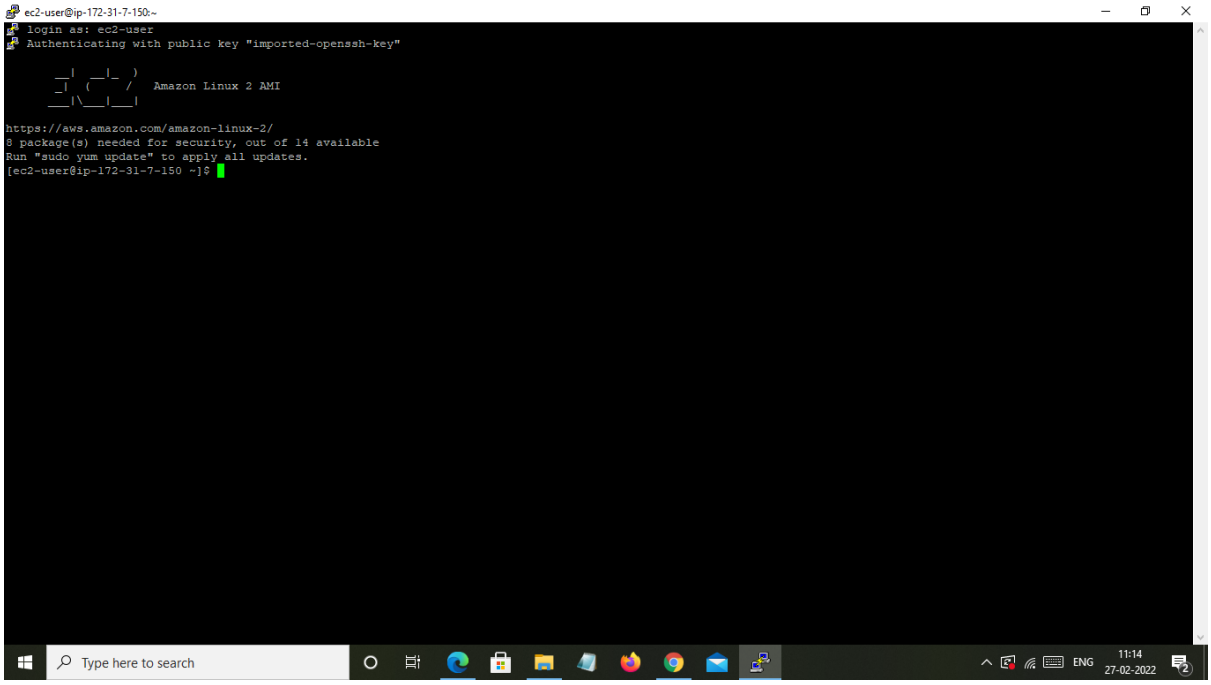
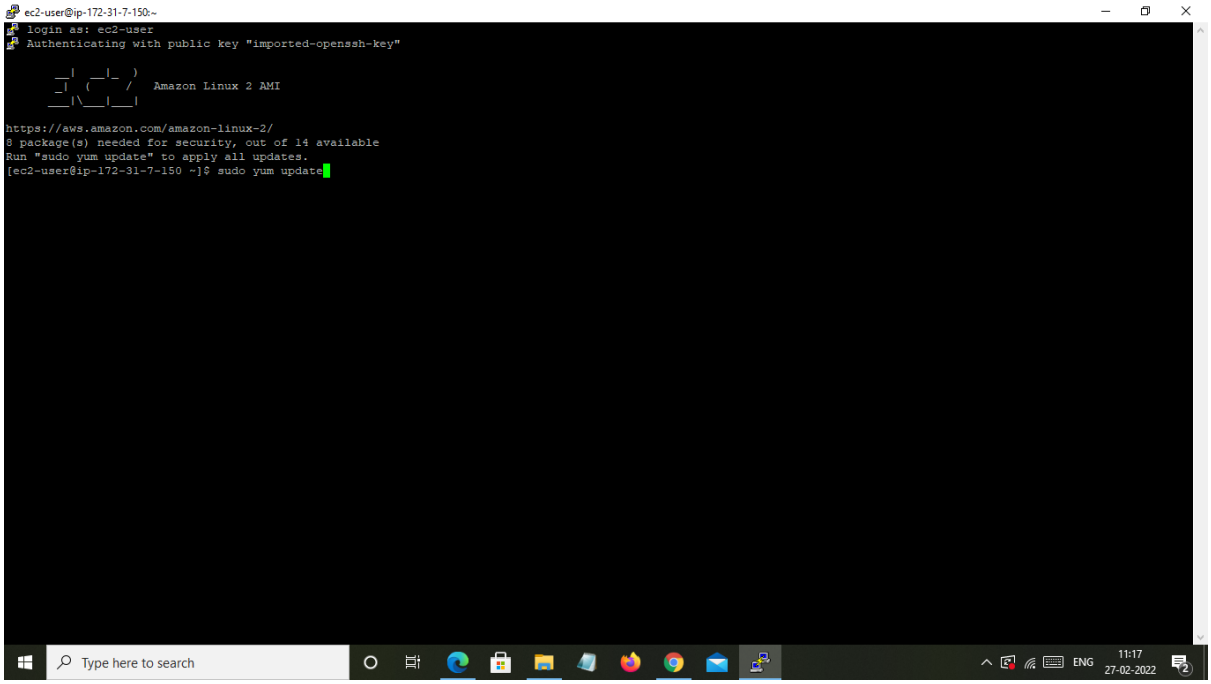
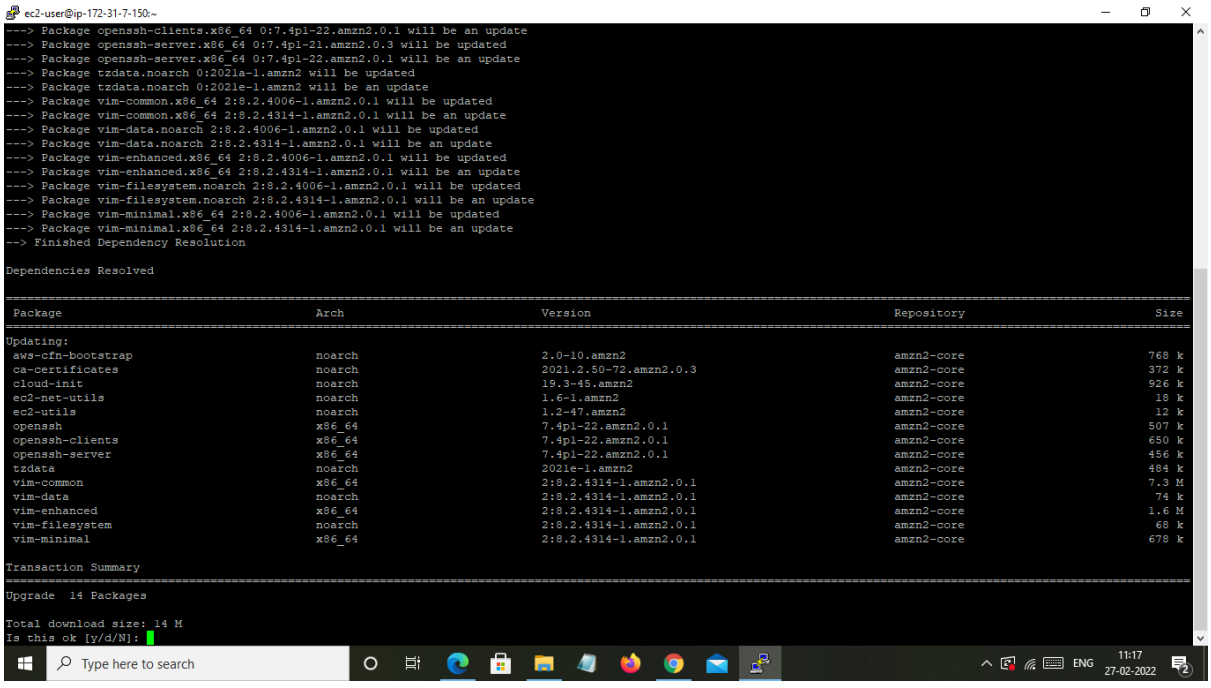
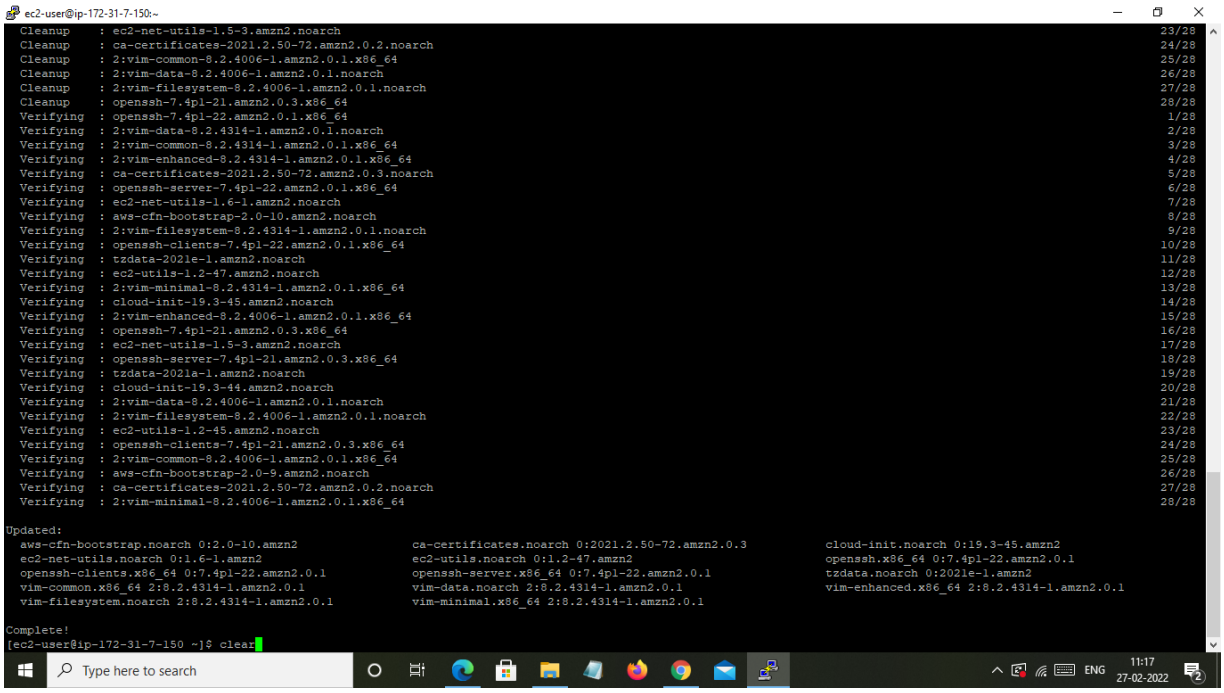

ec2-user@ip-172-31-7-150:~
login as: ec2-user
Authenticating with public key "imported-openssh-key"
Amazon Linux 2 AMI
https://aws.amazon.com/amazon-linux-2/
8 package(s) needed for security, out of 14 available
Run "sudo yum update" to apply all updates.
[ec2-user@ip-172-31-7-150 ~]$
Type here to search
ENG
11:14
27-02-2022

- Install Nginx for making them web servers






ec2-user@ip-172-31-7-150:~
Cleanup : ec2-net-utils-1.5-3.amzn2.noarch 23/28
Cleanup : ca-certificates-2021.2.50-72.amzn2.0.2.noarch 24/28
Cleanup : 2:vim-common-8.2.4006-1.amzn2.0.1.x86_64 25/28
Cleanup : 2:vim-data-8.2.4006-1.amzn2.0.1.noarch 26/28
Cleanup : 2:vim-filesystem-8.2.4006-1.amzn2.0.1.noarch 27/28
Cleanup : openssh-7.4p1-21.amzn2.0.3.x86_64 28/28
Verifying : openssh-7.4p1-22.amzn2.0.1.x86_64 1/28
Verifying : 2:vim-data-8.2.4314-1.amzn2.0.1.noarch 2/28
Verifying : 2:vim-common-8.2.4314-1.amzn2.0.1.x86_64 3/28
Verifying : 2:vim-enhanced-8.2.4314-1.amzn2.0.1.x86_64 4/28
Verifying : ca-certificates-2021.2.50-72.amzn2.0.3.noarch 5/28
Verifying : openssh-server-7.4p1-22.amzn2.0.1.x86_64 6/28
Verifying : ec2-net-utils-1.6-1.amzn2.noarch 7/28
Verifying : aws-cfn-bootstrap-2.0-10.amzn2.noarch 8/28
Verifying : 2:vim-filesystem-8.2.4314-1.amzn2.0.1.noarch 9/28
Verifying : openssh-clients-7.4p1-22.amzn2.0.1.x86_64 10/28
Verifying : tzdata-2021e-1.amzn2.noarch 11/28
Verifying : ec2-utils-1.2-47.amzn2.noarch 12/28
Verifying : 2:vim-minimal-8.2.4314-1.amzn2.0.1.x86_64 13/28
Verifying : cloud-init-19.3-45.amzn2.noarch 14/28
Verifying : 2:vim-enhanced-8.2.4006-1.amzn2.0.1.x86_64 15/28
Verifying : openssh-7.4p1-21.amzn2.0.3.x86_64 16/28
Verifying : ec2-net-utils-1.5-3.amzn2.noarch 17/28
Verifying : openssh-server-7.4p1-21.amzn2.0.3.x86_64 18/28
Verifying : tzdata-2021a-1.amzn2.noarch 19/28
Verifying : cloud-init-19.3-44.amzn2.noarch 20/28
Verifying : 2:vim-data-8.2.4006-1.amzn2.0.1.noarch 21/28
Verifying : 2:vim-filesystem-8.2.4006-1.amzn2.0.1.noarch 22/28
Verifying : ec2-utils-1.2-45.amzn2.noarch 23/28
Verifying : openssh-clients-7.4p1-21.amzn2.0.3.x86_64 24/28
Verifying : 2:vim-common-8.2.4006-1.amzn2.0.1.x86_64 25/28
Verifying : aws-cfn-bootstrap-2.0-9.amzn2.noarch 26/28
Verifying : ca-certificates-2021.2.50-72.amzn2.0.2.noarch 27/28
Verifying : 2:vim-minimal-8.2.4006-1.amzn2.0.1.x86_64 28/28
Updated:
aws-cfn-bootstrap.noarch 0:2.0-10.amzn2 ca-certificates.noarch 0:2021.2.50-72.amzn2.0.3 cloud-init.noarch 0:19.3-45.amzn2
ec2-net-utils.noarch 0:1.6-1.amzn2 ec2-utils.noarch 0:1.2-47.amzn2 openssh.x86_64 0:7.4p1-22.amzn2.0.1
openssh-clients.x86_64 0:7.4p1-22.amzn2.0.1 openssh-server.x86_64 0:7.4p1-22.amzn2.0.1 tzdata.noarch 0:2021e-1.amzn2
vim-common.x86_64 2:8.2.4314-1.amzn2.0.1 vim-data.noarch 2:8.2.4314-1.amzn2.0.1 vim-enhanced.x86_64 2:8.2.4314-1.amzn2.0.1
vim-filesystem.noarch 2:8.2.4314-1.amzn2.0.1 vim-minimal.x86_64 2:8.2.4314-1.amzn2.0.1
Complete!
[ec2-user@ip-172-31-7-150 ~]$ clear
Type here to search
ENG
11:17
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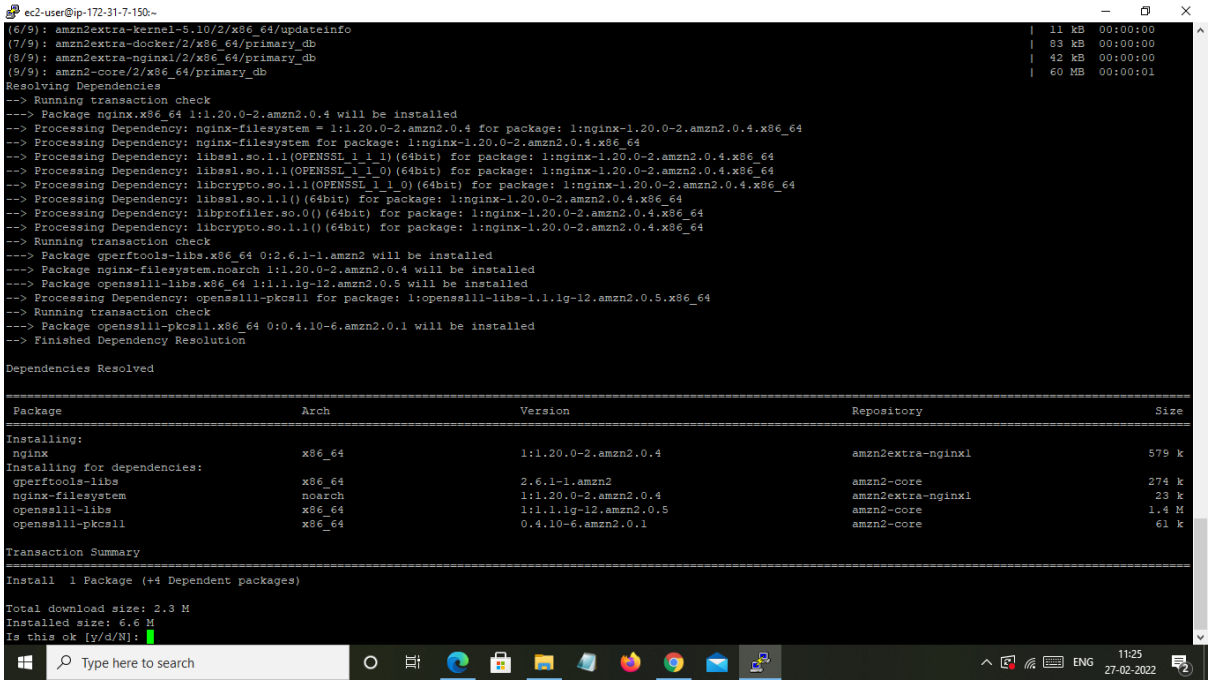
ec2-user@ip-172-31-7-150:~
(6/9): amzn2extra-kernel-5.10/2/x86_64/updateinfo | 11 kB 00:00:00
(7/9): amzn2extra-docker/2/x86_64/primary_db | 83 kB 00:00:00
(8/9): amzn2extra-nginx1/2/x86_64/primary_db | 42 kB 00:00:00
(9/9): amzn2-core/2/x86_64/primary_db | 60 MB 00:00:01
Resolving Dependencies
--> Running transaction check
---> Package nginx.x86_64 1:1.20.0-2.amzn2.0.4 will be installed
--> Processing Dependency: nginx-filesystem = 1:1.20.0-2.amzn2.0.4 for package: 1:nginx-1.20.0-2.amzn2.0.4.x86_64
--> Processing Dependency: nginx-filesystem for package: 1:nginx-1.20.0-2.amzn2.0.4.x86_64
--> Processing Dependency: libssl.so.1.1(OPENSSL_1_1_1)(64bit) for package: 1:nginx-1.20.0-2.amzn2.0.4.x86_64
--> Processing Dependency: libssl.so.1.1(OPENSSL_1_1_0)(64bit) for package: 1:nginx-1.20.0-2.amzn2.0.4.x86_64
--> Processing Dependency: libcrypto.so.1.1(OPENSSL_1_1_0)(64bit) for package: 1:nginx-1.20.0-2.amzn2.0.4.x86_64
--> Processing Dependency: libssl.so.1.1()(64bit) for package: 1:nginx-1.20.0-2.amzn2.0.4.x86_64
--> Processing Dependency: libprofiler.so.0()(64bit) for package: 1:nginx-1.20.0-2.amzn2.0.4.x86_64
--> Processing Dependency: libcrypto.so.1.1()(64bit) for package: 1:nginx-1.20.0-2.amzn2.0.4.x86_64
--> Running transaction check
---> Package gperftools-libs.x86_64 0:2.6.1-1.amzn2 will be installed
---> Package nginx-filesystem.noarch 1:1.20.0-2.amzn2.0.4 will be installed
---> Package openssl11-libs.x86_64 1:1.1.1g-12.amzn2.0.5 will be installed
--> Processing Dependency: openssl11-pkcs11 for package: 1:openssl11-libs-1.1.1g-12.amzn2.0.5.x86_64
--> Running transaction check
---> Package openssl11-pkcs11.x86_64 0:0.4.10-6.amzn2.0.1 will be installed
--> Finished Dependency Resolution
Dependencies Resolved
Package Arch Version Repository Size
Installing:
nginx x86_64 1:1.20.0-2.amzn2.0.4 amzn2extra-nginx1 579 k
Installing for dependencies:
gperftools-libs x86_64 2.6.1-1.amzn2 amzn2-core 274 k
nginx-filesystem noarch 1:1.20.0-2.amzn2.0.4 amzn2extra-nginx1 23 k
openssl11-libs x86_64 1:1.1.1g-12.amzn2.0.5 amzn2-core 1.4 M
openssl11-pkcs11 x86_64 0.4.10-6.amzn2.0.1 amzn2-core 61 k
Transaction Summary
Install 1 Package (+4 Dependent packages)
Total download size: 2.3 M
Installed size: 6.6 M
Is this ok [y/d/N]:
Type here to search
ENG
11:25
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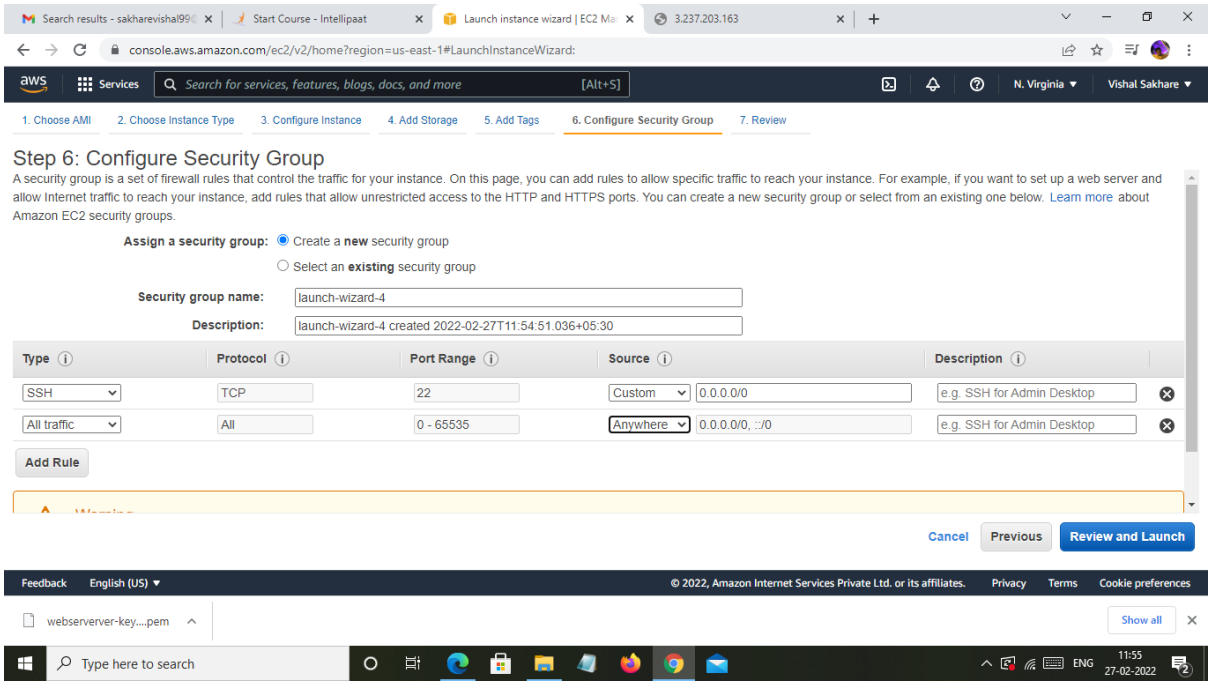
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Launch instance wizard | EC2 Ma
3.237.203.163
console.aws.amazon.com/ec2/v2/home?region=us-east-1#LaunchInstanceWizard:
aws
Services
Search for services, features, blogs, docs, and more
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1. Choose AMI
2. Choose Instance Type
3. Configure Instance
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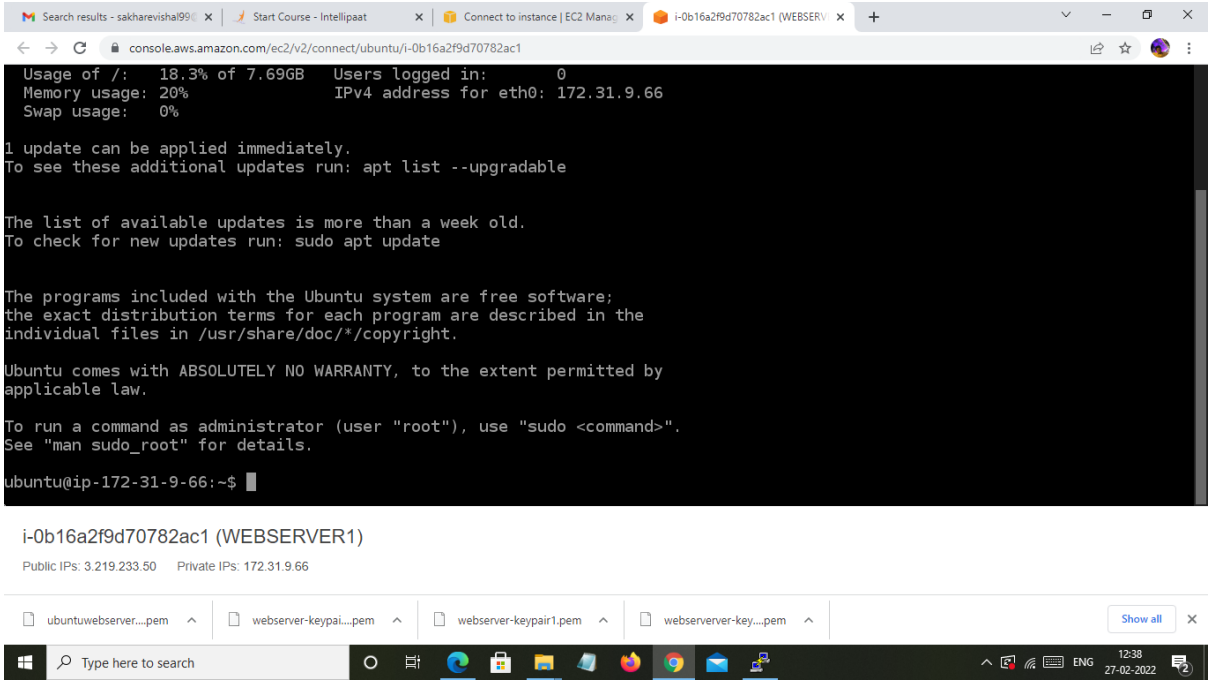
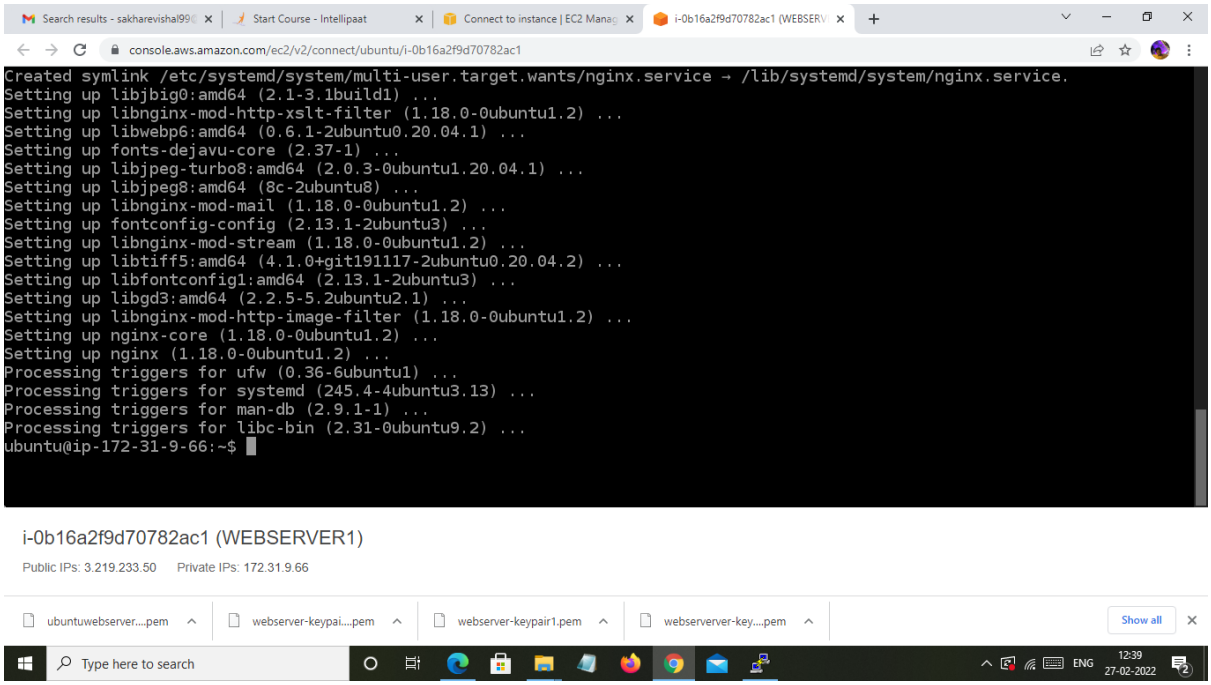
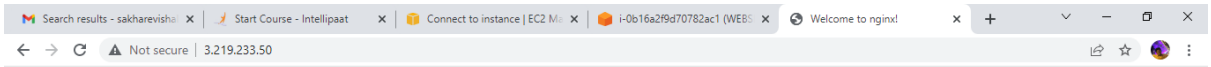
6. Configure Security Group
7. Review
Step 6: Configure Security Group
A security group is a set of firewall rules that control the traffic for your instance. On this page, you can add rules to allow specific traffic to reach your instance. For example, if you want to set up a web server and allow Internet traffic to reach your instance, add rules that allow unrestricted access to the HTTP and HTTPS ports. You can create a new security group or select from an existing one below. Learn more about Amazon EC2 security groups.
Assign a security group: Create a new security group
Select an existing security group
Security group name: launch-wizard-4
Description: launch-wizard-4 created 2022-02-27T11:54:51.036+05:30
Type
Protocol
Port Range
Source
Description
SSH
TCP
22
Custom
0.0.0.0/0
e.g. SSH for Admin Desktop
All traffic
All
0 - 65535
Anywhere
0.0.0.0/0, ::/0
e.g. SSH for Admin Desktop
Add Rule
Cancel
Previous
Review and Launch
Feedback
English (US)
© 2022, Amazon Internet Services Private Ltd. or its affiliates.
Privacy
Terms
Cookie preferences
webserverver-key....pem
Show all
Type here to search
ENG
11:55
27-02-2022


Search results - sakharevishal99
Start Course - Intellipaat
Connect to instance | EC2 Manag
i-0b16a2f9d70782ac1 (WEBSERV
console.aws.amazon.com/ec2/v2/connect/ubuntu/i-0b16a2f9d70782ac1
Usage of /: 18.3% of 7.69GB
Memory usage: 20%
Swap usage: 0%
Users logged in: 0
IPv4 address for eth0: 172.31.9.66
1 update can be applied immediately.
To see these additional updates run: apt list --upgradable
The list of available updates is more than a week old.
To check for new updates run: sudo apt update
The programs included with the Ubuntu system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Ubuntu comes with ABSOLUTELY NO WARRANTY, to the extent permitted by
applicable law.
To run a command as administrator (user "root"), use "sudo <command>".
See "man sudo_root" for details.
ubuntu@ip-172-31-9-66:~$
i-0b16a2f9d70782ac1 (WEBSERVER1)
Public IPs: 3.219.233.50
Private IPs: 172.31.9.66
ubuntuwebserver....pem
webserver-keypai....pem
webserver-keypair1.pem
webserverver-key....pem
Show all
Type here to search
ENG
12:38
27-02-2022



i-0b16a2f9d70782ac1 (WEBSERVER1)

Public IPs: 3.219.233.50 Private IPs: 172.31.9.66

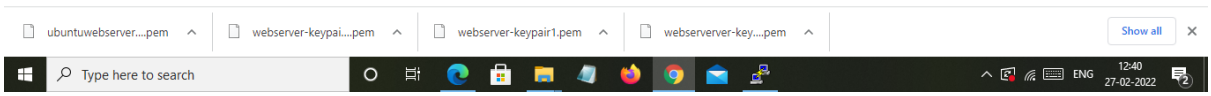


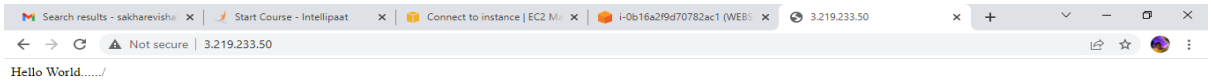
Welcome to nginx!

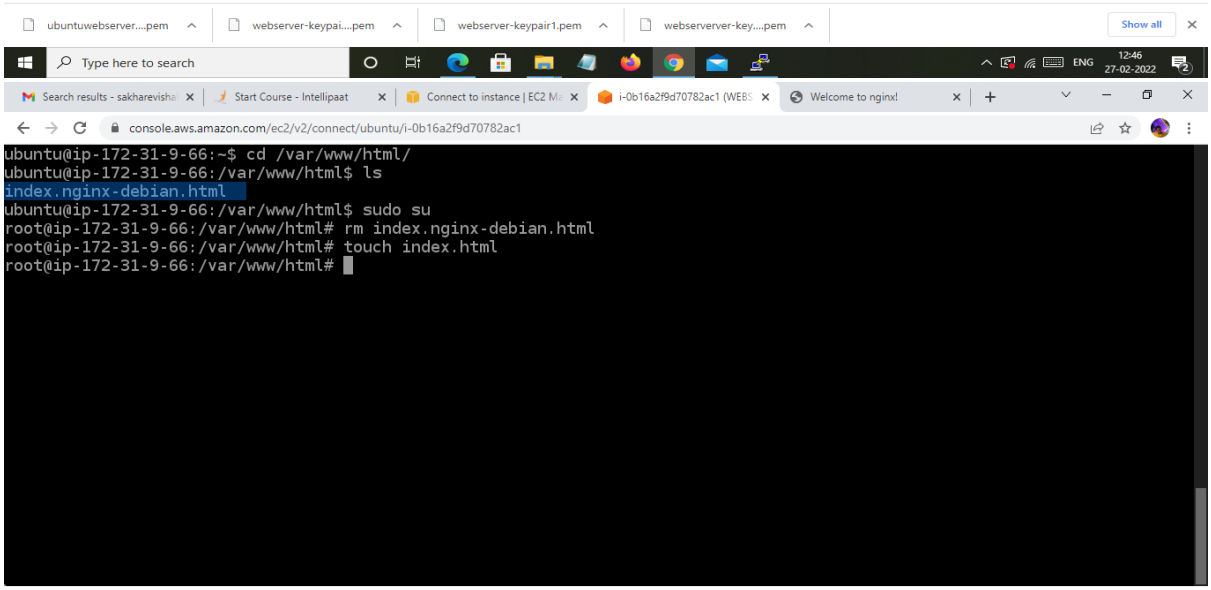
If you see this page, the nginx web server is successfully installed and working. Further configuration is required.

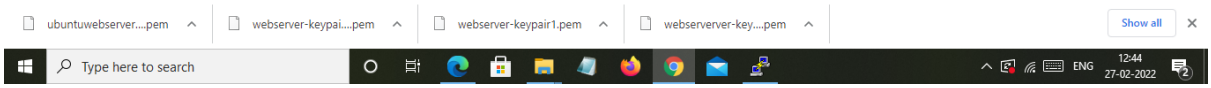
For online documentation and support please refer to nginx.org.
Commercial support is available at nginx.com.

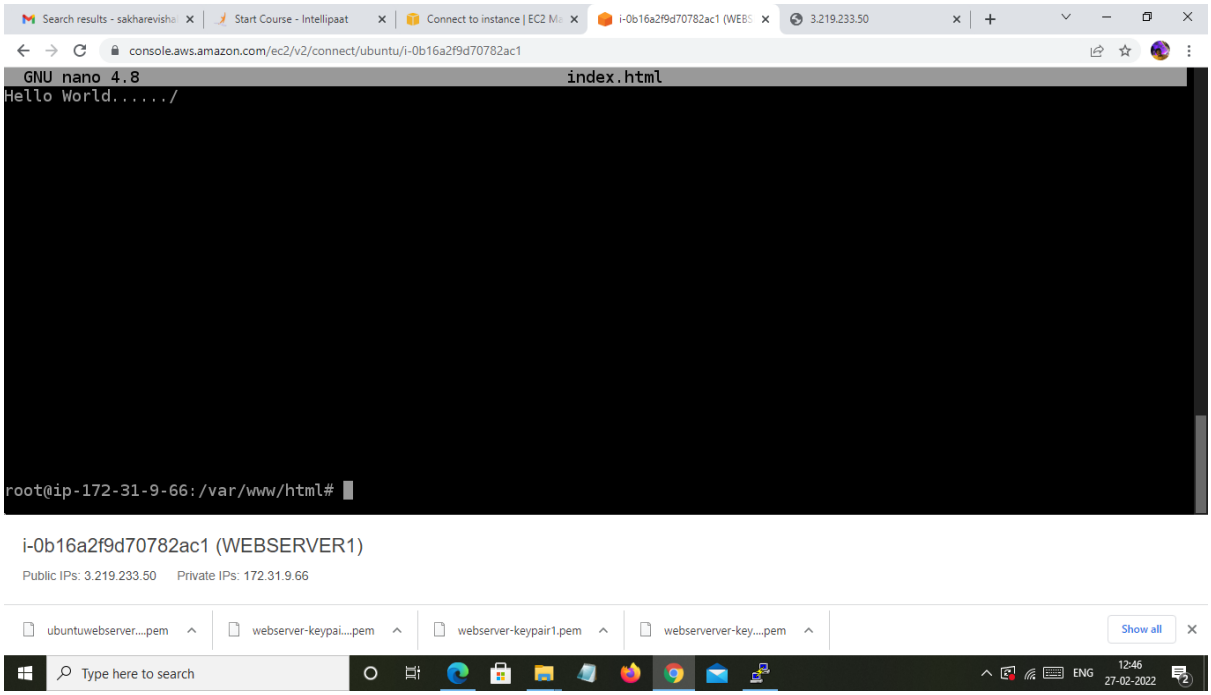
Thank you for using nginx.




Not secure | 3.219.233.50
Hello World...../


console.aws.amazon.com/ec2/v2/connect/ubuntu/i-0b16a2f9d70782ac1
ubuntu@ip-172-31-9-66:~$ cd /var/www/html/
ubuntu@ip-172-31-9-66:/var/www/html$ ls
index.nginx-debian.html
ubuntu@ip-172-31-9-66:/var/www/html$ sudo su
root@ip-172-31-9-66:/var/www/html# rm index.nginx-debian.html
root@ip-172-31-9-66:/var/www/html# touch index.html
root@ip-172-31-9-66:/var/www/html#


i-0b16a2f9d70782ac1 (WEBSERVER1)
Public IPs: 3.219.233.50 Private IPs: 172.31.9.66


Search results - sakharevisha
Start Course - Intellipaat
Connect to instance | EC2 Ma
i-0b16a2f9d70782ac1 (WEBS
3.219.233.50
console.aws.amazon.com/ec2/v2/connect/ubuntu/i-0b16a2f9d70782ac1
GNU nano 4.8 index.html
Hello World...../
root@ip-172-31-9-66:/var/www/html#
i-0b16a2f9d70782ac1 (WEBSERVER1)
Public IPs: 3.219.233.50 Private IPs: 172.31.9.66
ubuntuwebserver....pem
webserver-keypai....pem
webserver-keypair1.pem
webserverver-key....pem
Show all
Type here to search
ENG
12:46
27-02-2022