TASK 1

Step 1: Create a Hosted Zone in Route 53

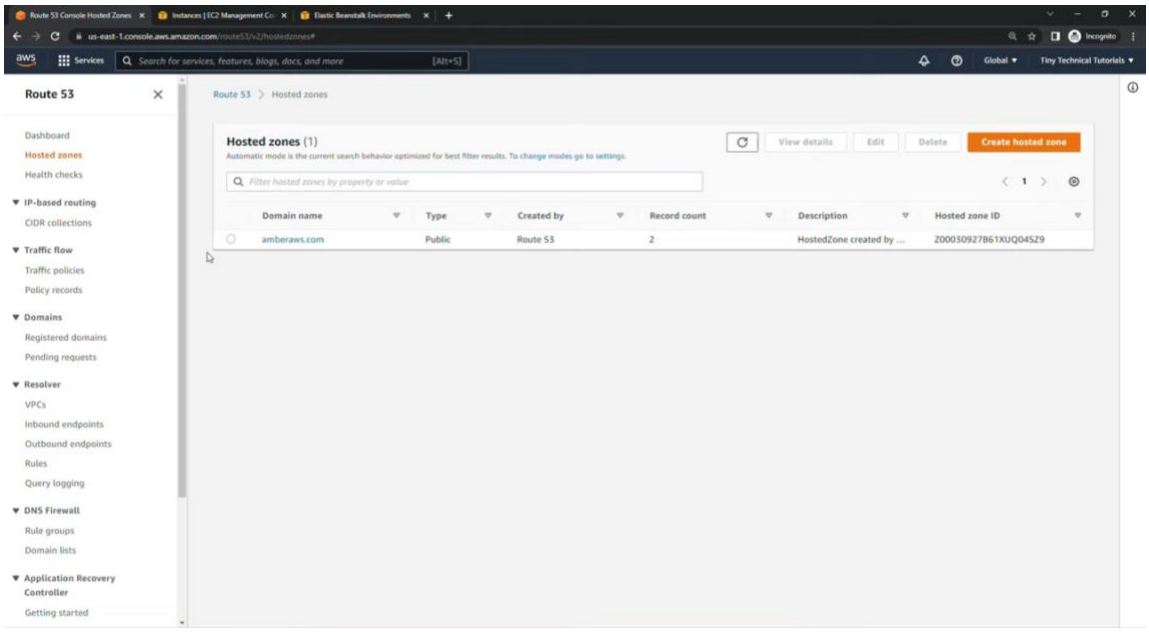
. Go to AWS Console → **ROUTE53**

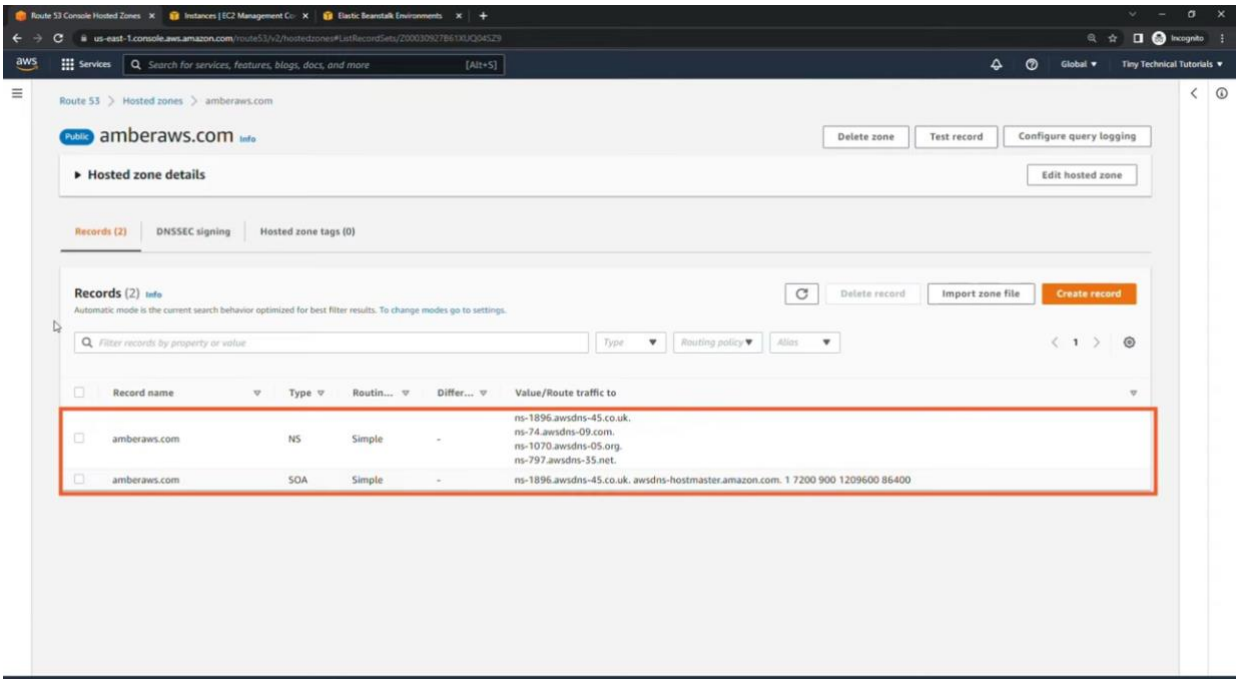
. Click Hosted zones —> **CREATE HOSTED ZONES**

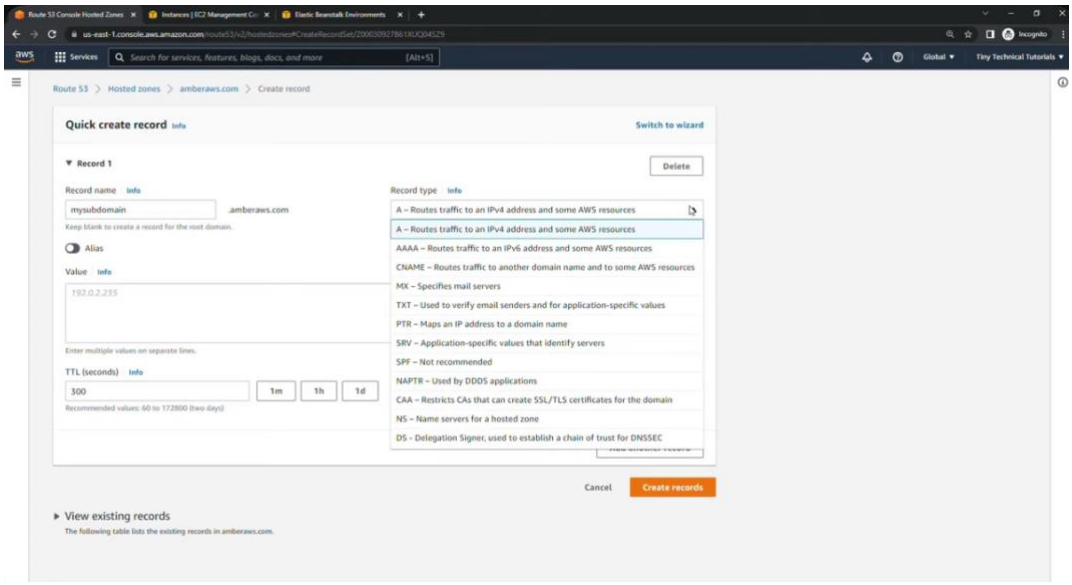
. Enter your domain name

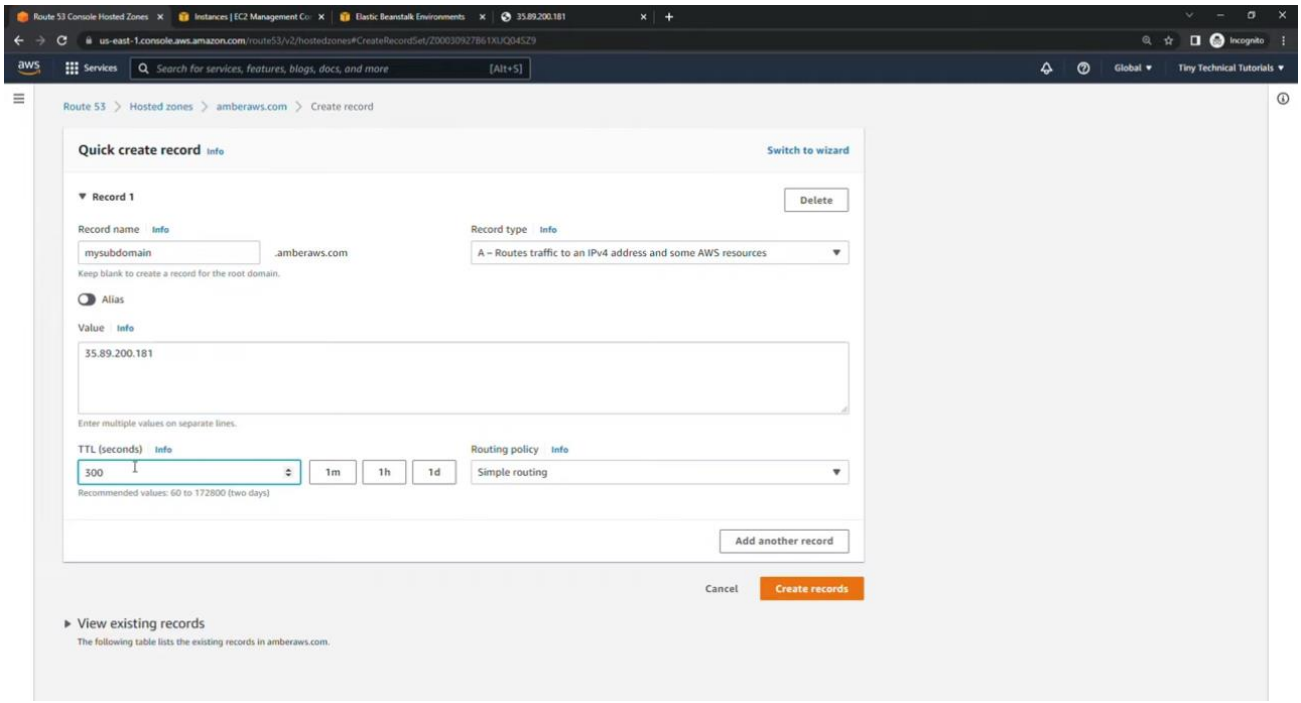
. Type: **Public Hosted Zone**

.CLICK CREATE




Route 53 > Hosted zones > amberaws.com
Public amberaws.com Info
Delete zone
Test record
Configure query logging
Hosted zone details
Edit hosted zone
Records (2)
DNSSEC signing
Hosted zone tags (0)
Records (2) Info
Delete record
Import zone file
Create record
Record name
Type
Routin...
Differ...
Value/Route traffic to
amberaws.com
NS
Simple
ns-1896.awsdns-45.co.uk.
ns-74.awsdns-09.com.
ns-1070.awsdns-05.org.
ns-797.awsdns-35.net.
amberaws.com
SOA
Simple
ns-1896.awsdns-45.co.uk. awsdns-hostmaster.amazon.com. 1 7200 900 1209600 86400


Route 53 > Hosted zones > amberaws.com > Create record
Quick create record Info
Switch to wizard
Record 1
Delete
Record name Info
mysubdomain
.amberaws.com
Keep blank to create a record for the root domain.
Alias
Value Info
192.0.2.235
Enter multiple values on separate lines.
TTL (seconds) Info
300
1m
1h
1d
Recommended values: 60 to 172800 (two days)
Record type Info
A – Routes traffic to an IPv4 address and some AWS resources
AAAA – Routes traffic to an IPv6 address and some AWS resources
CNAME – Routes traffic to another domain name and to some AWS resources
MX – Specifies mail servers
TXT – Used to verify email senders and for application-specific values
PTR – Maps an IP address to a domain name
SRV – Application-specific values that identify servers
SPF – Not recommended
NAPTR – Used by DDDS applications
CAA – Restricts CAs that can create SSL/TLS certificates for the domain
NS – Name servers for a hosted zone
DS – Delegation Signer, used to establish a chain of trust for DNSSEC
Cancel
Create records
View existing records
The following table lists the existing records in amberaws.com.



Step 2: Launch and Configure EC2 Instance

. Go to AWS Console → **EC2 → Launch Instance**

.Choose Ubuntu

. Instance type: t3.micro

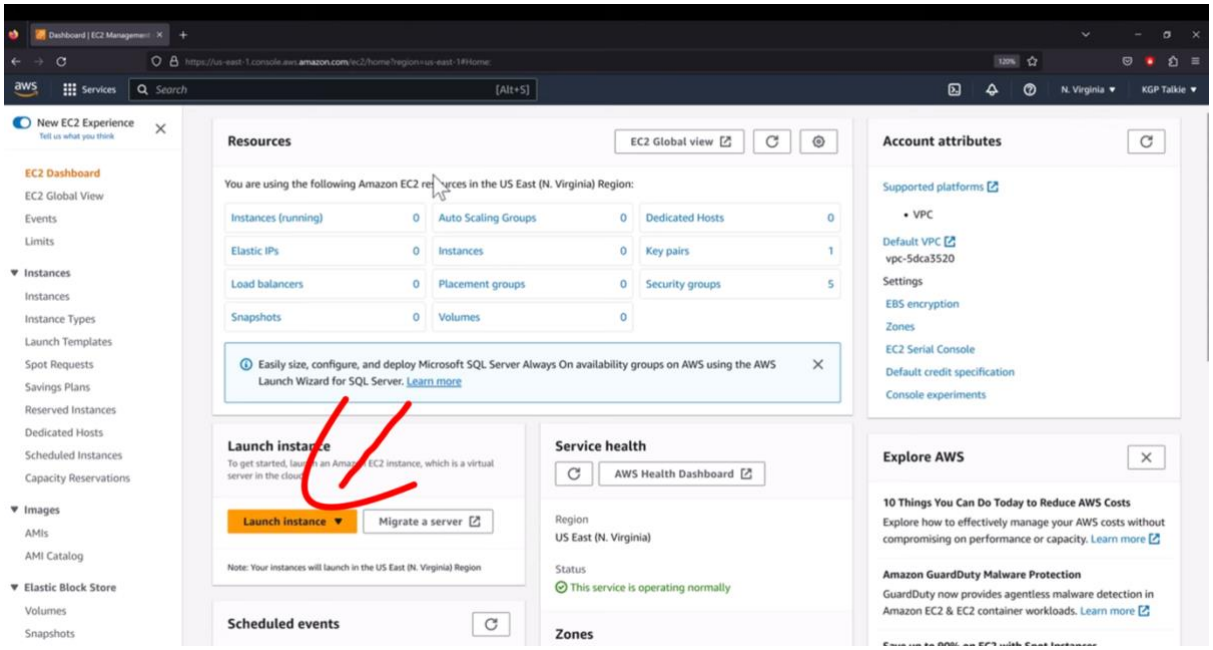
.. Key Pair: Create or use an existing key

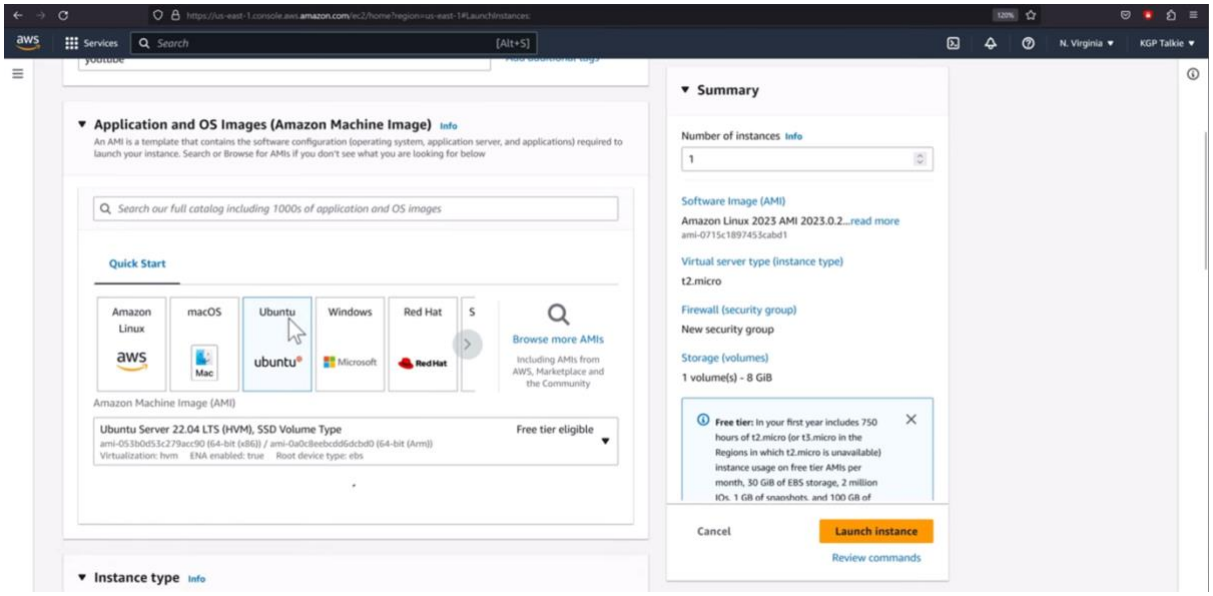
5.

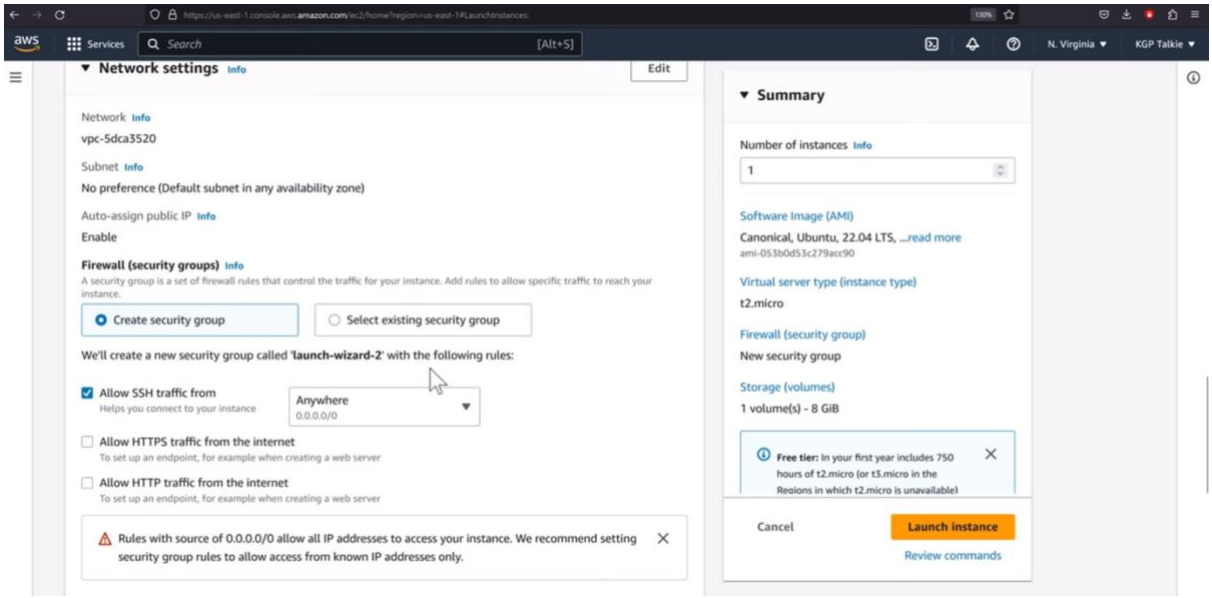
. Configure:

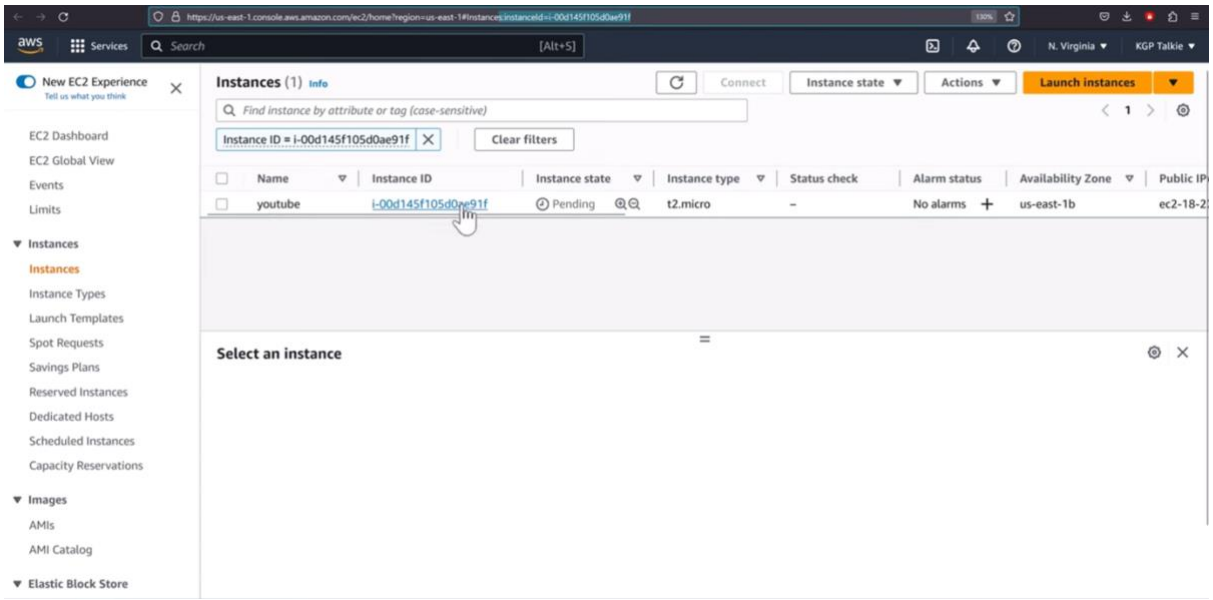
  - Network: Choose existing VPC and subnet
  - Security Group: Allow **Ports 22 (SSH), 80, 8080 (for Jenkins)**

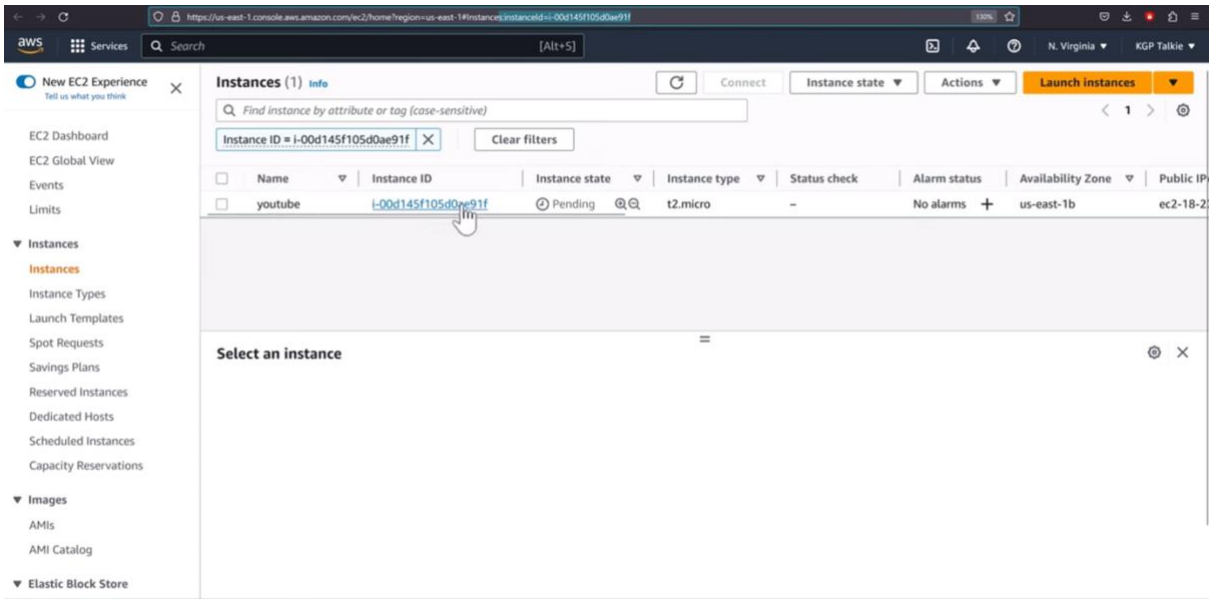
.. Launch the instance

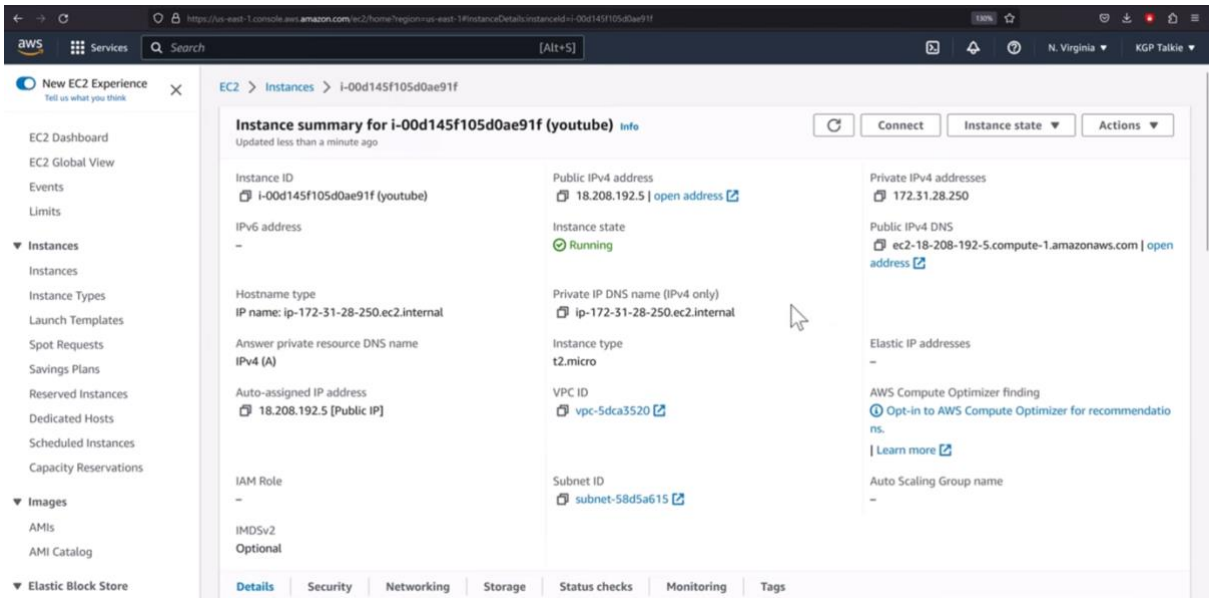





Services
Search
[Alt+S]
N. Virginia
KGP Talkie
Network settings Info
Edit
Network Info
vpc-5dca3520
Subnet Info
No preference (Default subnet in any availability zone)
Auto-assign public IP Info
Enable
Firewall (security groups) Info
A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.
Create security group
Select existing security group
We'll create a new security group called 'launch-wizard-2' with the following rules:
Allow SSH traffic from
Helps you connect to your instance
Anywhere
0.0.0.0/0
Allow HTTPS traffic from the internet
To set up an endpoint, for example when creating a web server
Allow HTTP traffic from the internet
To set up an endpoint, for example when creating a web server
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.
Summary
Number of instances Info
1
Software Image (AMI)
Canonical, Ubuntu, 22.04 LTS, ...read more
ami-053b0d53c279acc90
Virtual server type (instance type)
t2.micro
Firewall (security group)
New security group
Storage (volumes)
1 volume(s) - 8 GiB
Free tier: In your first year includes 750 hours of t2.micro (or t3.micro in the Regions in which t2.micro is unavailable)
Cancel
Launch instance
Review commands


Services
Search
[Alt+S]
N. Virginia
KGP Talkie
New EC2 Experience
Tell us what you think
EC2 Dashboard
EC2 Global View
Events
Limits
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Scheduled Instances
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Instances (1) Info
Connect
Instance state
Actions
Launch instances
Find instance by attribute or tag (case-sensitive)
Instance ID = i-00d145f105d0ae91f
Clear filters
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
Public IP
youtube
i-00d145f105d0ae91f
Pending
t2.micro
–
No alarms
us-east-1b
Select an instance


aws
Services
Search
[Alt+S]
N. Virginia
KGP Talkie
New EC2 Experience
Tell us what you think
EC2 Dashboard
EC2 Global View
Events
Limits
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Scheduled Instances
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Instances (1) Info
Connect
Instance state
Actions
Launch instances
Find instance by attribute or tag (case-sensitive)
Instance ID = i-00d145f105d0ae91f
Clear filters
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
youtube
i-00d145f105d0ae91f
Pending
t2.micro
–
No alarms
us-east-1b
Select an instance


aws
Services
Search
[Alt+S]
N. Virginia
KGP Talkie
New EC2 Experience
Tell us what you think
EC2 Dashboard
EC2 Global View
Events
Limits
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Scheduled Instances
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
EC2 > Instances > i-00d145f105d0ae91f
Instance summary for i-00d145f105d0ae91f (youtube) Info
Updated less than a minute ago
Connect
Instance state
Actions
Instance ID
i-00d145f105d0ae91f (youtube)
Public IPv4 address
18.208.192.5 | open address
Private IPv4 addresses
172.31.28.250
IPv6 address
–
Instance state
Running
Public IPv4 DNS
ec2-18-208-192-5.compute-1.amazonaws.com | open address
Hostname type
IP name: ip-172-31-28-250.ec2.internal
Private IP DNS name (IPv4 only)
ip-172-31-28-250.ec2.internal
Answer private resource DNS name
IPv4 (A)
Instance type
t2.micro
Elastic IP addresses
–
Auto-assigned IP address
18.208.192.5 [Public IP]
VPC ID
vpc-5dca3520
AWS Compute Optimizer finding
Opt-in to AWS Compute Optimizer for recommendations.
| Learn more
IAM Role
–
Subnet ID
subnet-58d5a615
Auto Scaling Group name
–
IMDSv2
Optional
Details
Security
Networking
Storage
Status checks
Monitoring
Tags

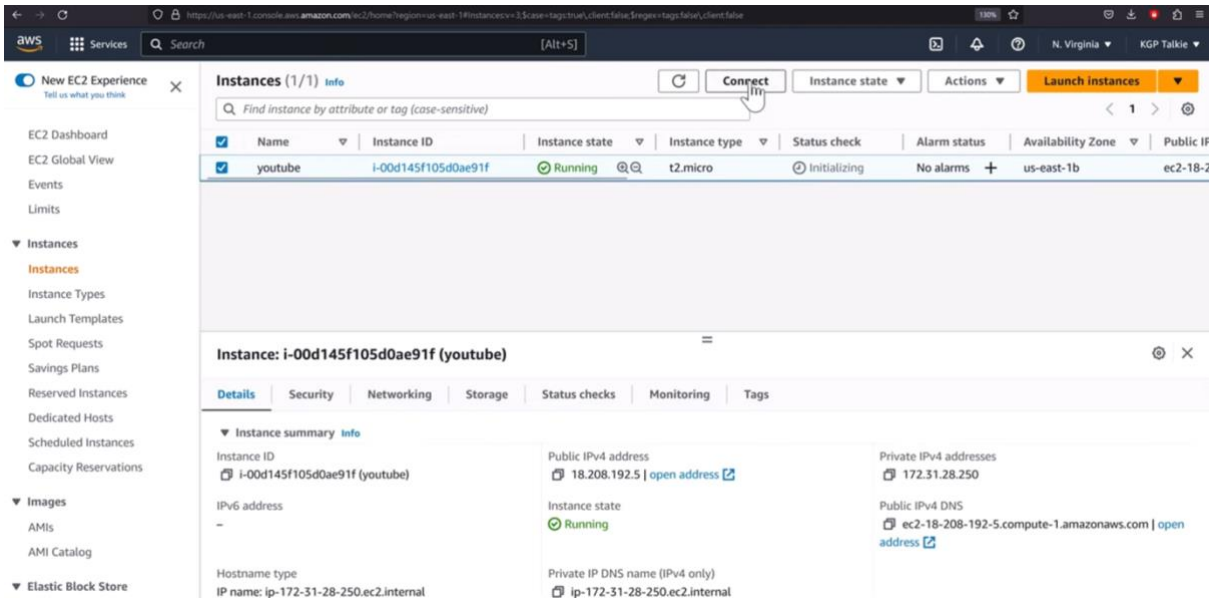
Step 3: Install Jenkins on EC2

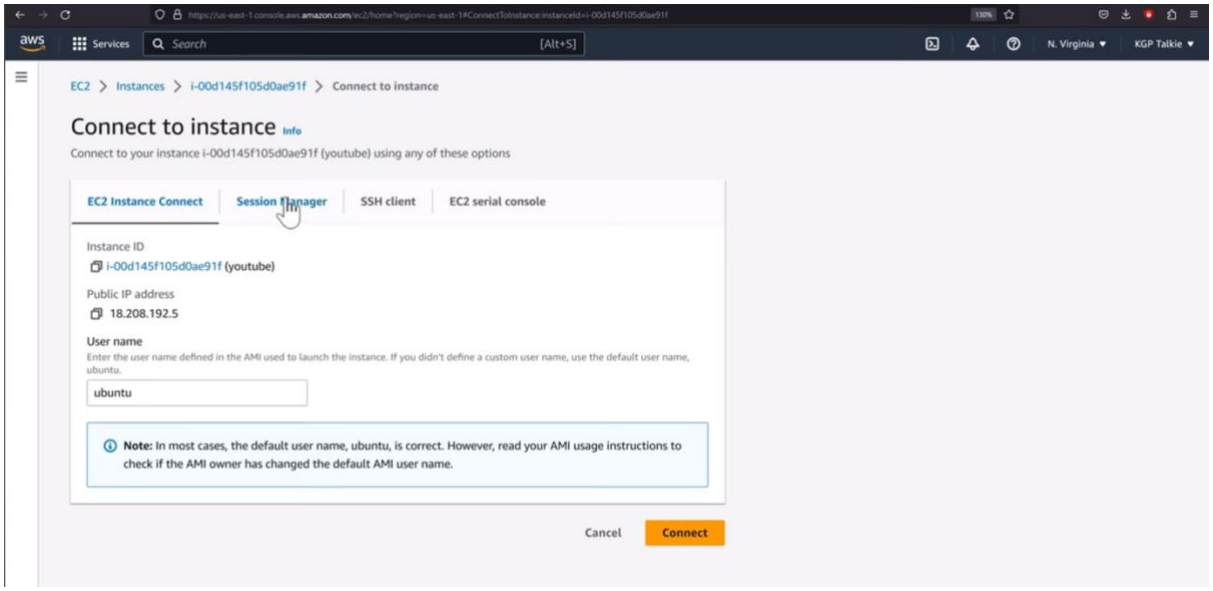
1. sudo apt update
2. sudo apt upgrade -y
3. sudo apt install openjdk-17-jdk -y
4. java -version
5. **Add Jenkins GPG Key and Repository:**
   curl -
   fsSLhttps://pkg.jenkins.io/debianstable/jenkins.io2023.key
   | sudo tee \ /usr/share/keyrings/jenkins-keyring.asc >
   /dev/null

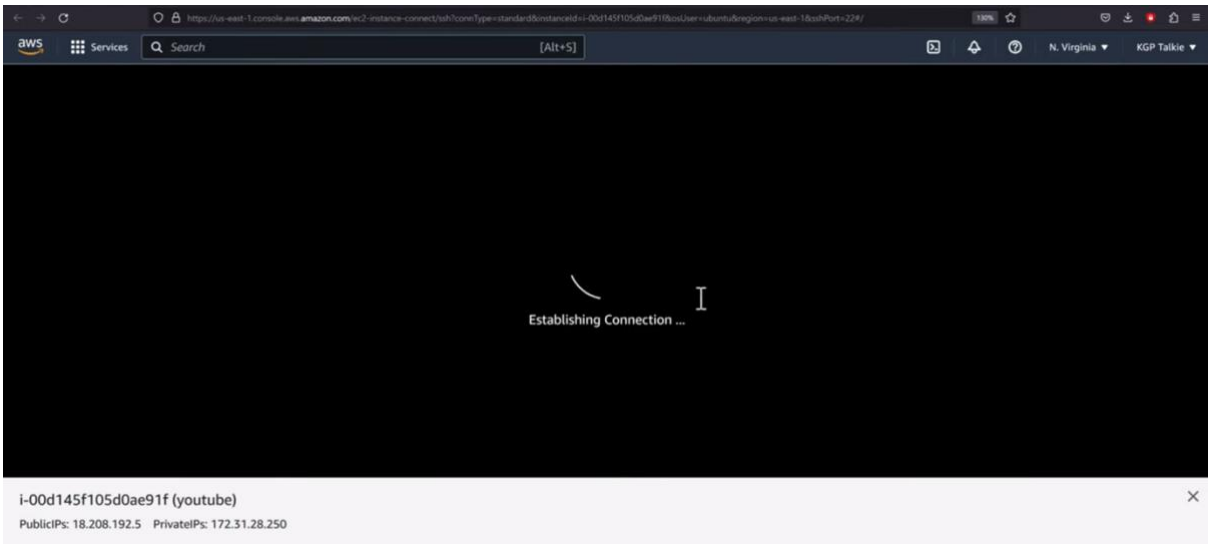
   echo deb [signed-by=/usr/share/keyrings/jenkins-
   keyring.asc] \
   https://pkg.jenkins.io/debian-stable binary/
   | sudo tee \ /etc/apt/sources.list.d/jenkins.list > /dev/null
6. sudo apt update
7. sudo apt install jenkins -y
8. sudo systemctl start jenkins
9. sudo systemctl enable jenkins

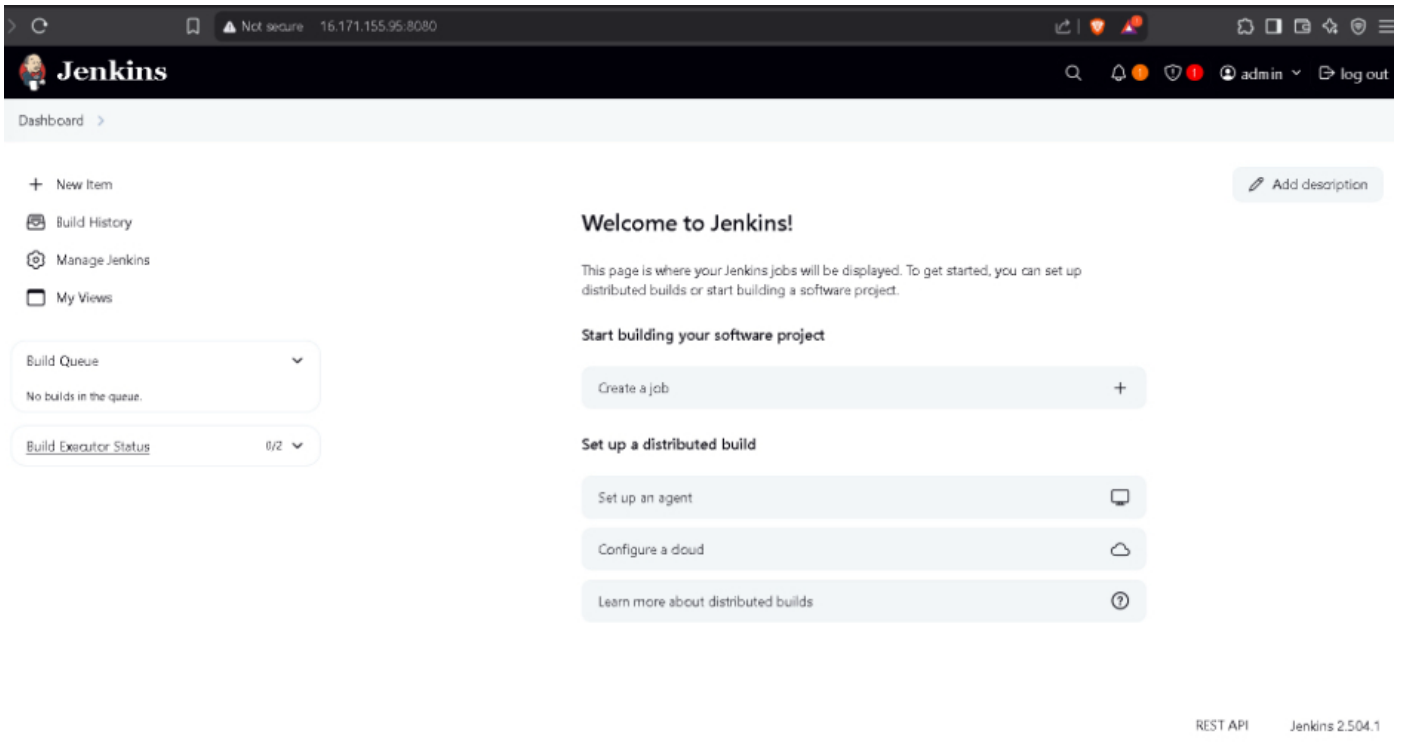
Result:

Visit http://16.171.155.95:8080 to access Jenkins


Services
Search
[Alt+S]
N. Virginia
KGP Talkie
New EC2 Experience
Tell us what you think
EC2 Dashboard
EC2 Global View
Events
Limits
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Scheduled Instances
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Instances (1/1) Info
Connect
Instance state
Actions
Launch instances
Find instance by attribute or tag (case-sensitive)
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
youtube
i-00d145f105d0ae91f
Running
t2.micro
Initializing
No alarms
us-east-1b
Instance: i-00d145f105d0ae91f (youtube)
Details
Security
Networking
Storage
Status checks
Monitoring
Tags
Instance summary Info
Instance ID
i-00d145f105d0ae91f (youtube)
Public IPv4 address
18.208.192.5 | open address
Private IPv4 addresses
172.31.28.250
IPv6 address
–
Instance state
Running
Public IPv4 DNS
ec2-18-208-192-5.compute-1.amazonaws.com | open address
Hostname type
IP name: ip-172-31-28-250.ec2.internal
Private IP DNS name (IPv4 only)
ip-172-31-28-250.ec2.internal


Services
Search
[Alt+S]
N. Virginia
KGP Talkie
EC2 > Instances > i-00d145f105d0ae91f > Connect to instance
Connect to instance Info
Connect to your instance i-00d145f105d0ae91f (youtube) using any of these options
EC2 Instance Connect
Session Manager
SSH client
EC2 serial console
Instance ID
i-00d145f105d0ae91f (youtube)
Public IP address
18.208.192.5
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


Services
Search
[Alt+S]
N. Virginia
KGP Talkie
Establishing Connection ...
i-00d145f105d0ae91f (youtube)
PublicIPs: 18.208.192.5 PrivateIPs: 172.31.28.250


Not secure 16.171.155.95:8080
Jenkins
admin
log out
Dashboard
New Item
Build History
Manage Jenkins
My Views
Build Queue
No builds in the queue.
Build Executor Status 0/2
Add description
Welcome to Jenkins!
This page is where your Jenkins jobs will be displayed. To get started, you can set up distributed builds or start building a software project.
Start building your software project
Create a job
Set up a distributed build
Set up an agent
Configure a cloud
Learn more about distributed builds
REST API
Jenkins 2.504.1