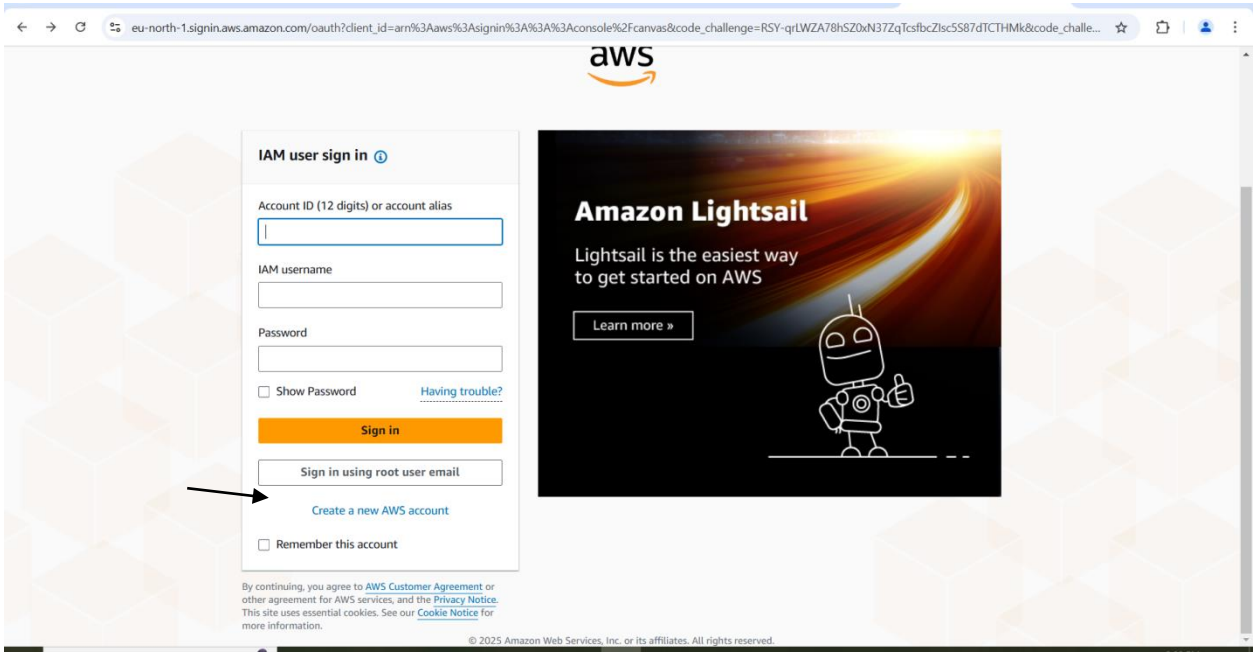
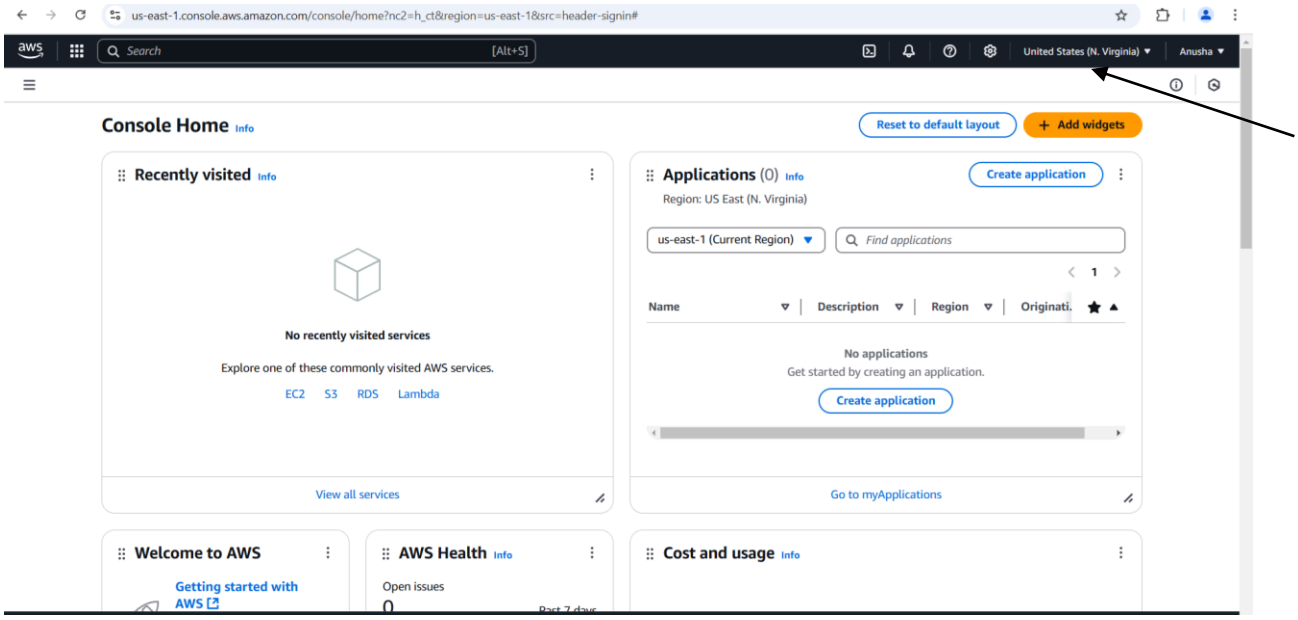
Exp-3

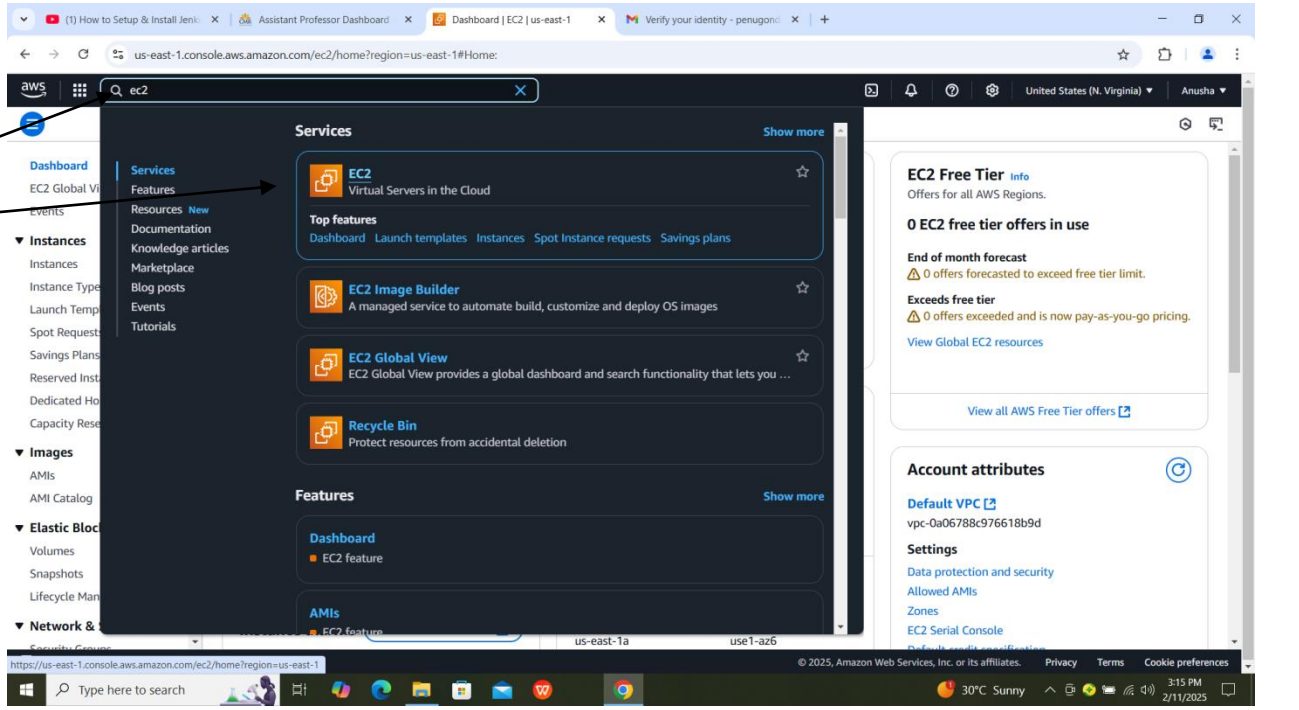
Jenkins Setup on AWS

Step 1:-First create AWS Account. After completion sign in with AWS Root user.It will ask email , password and verification code.

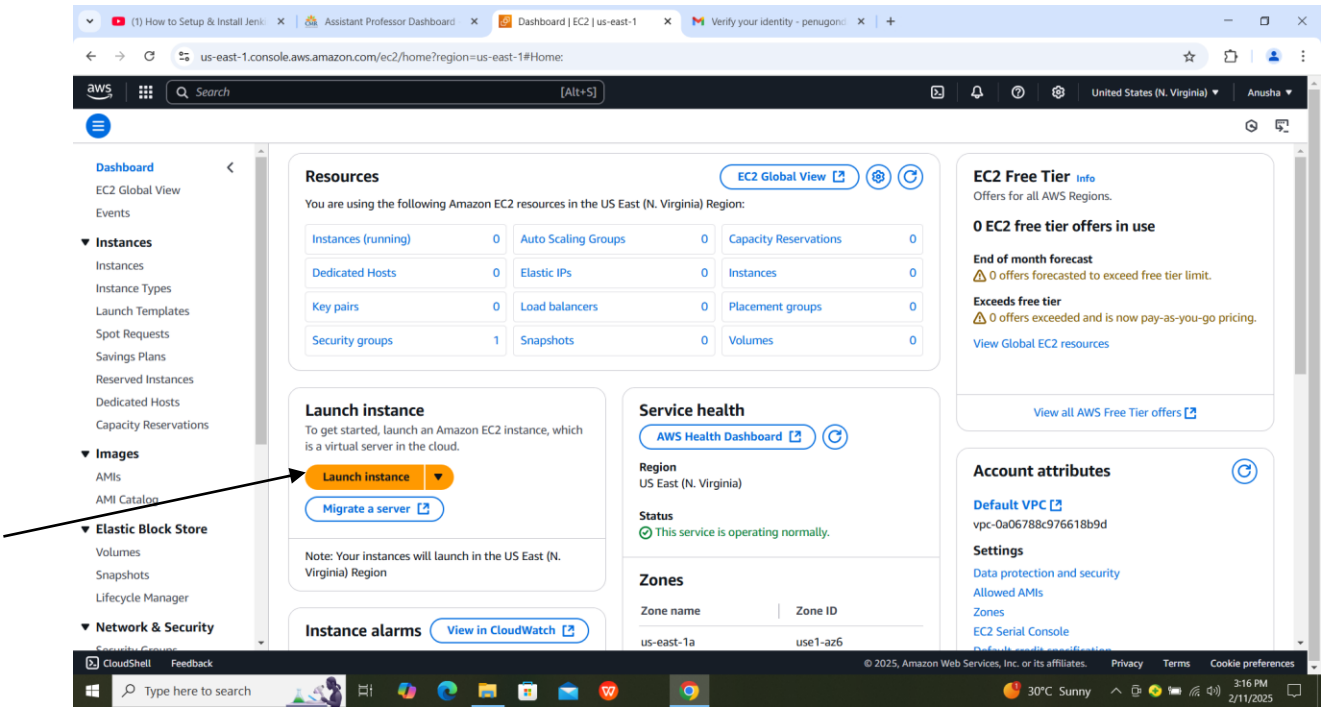


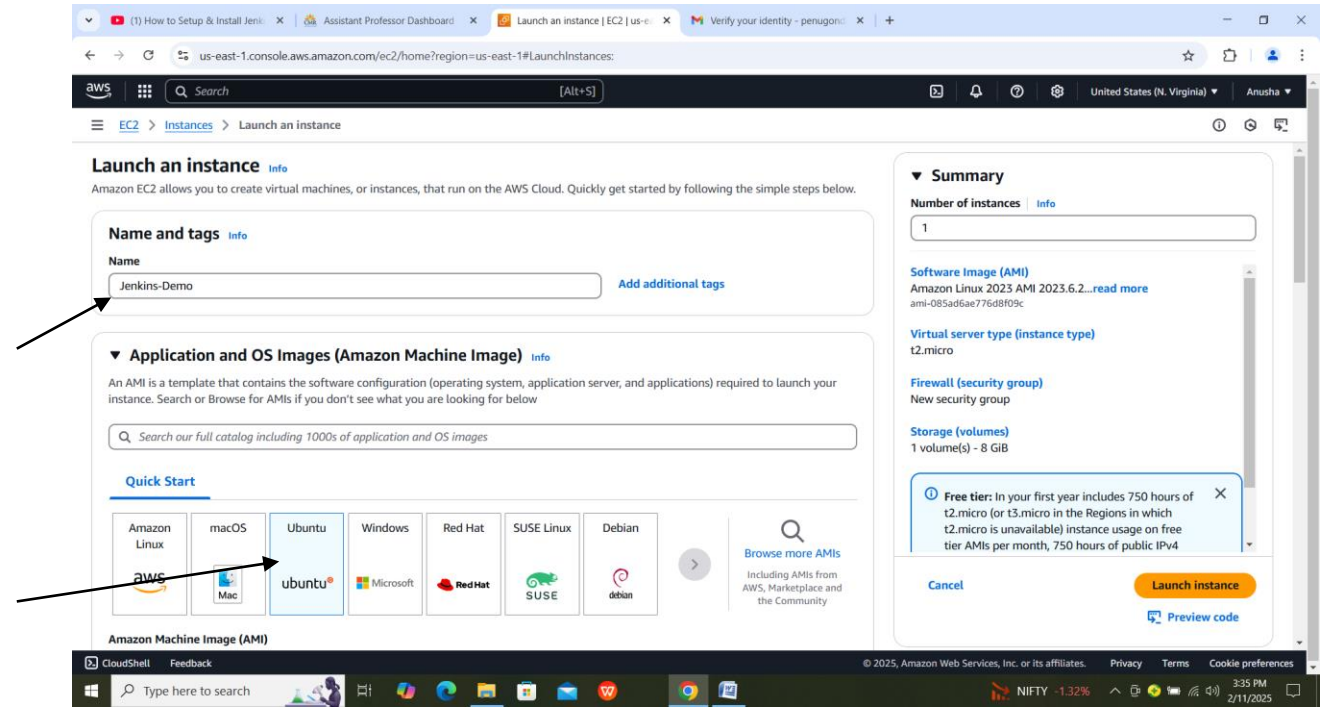
Step 2:-After login first select United states(N. Virginia) and search EC2 and select First option EC2 only.

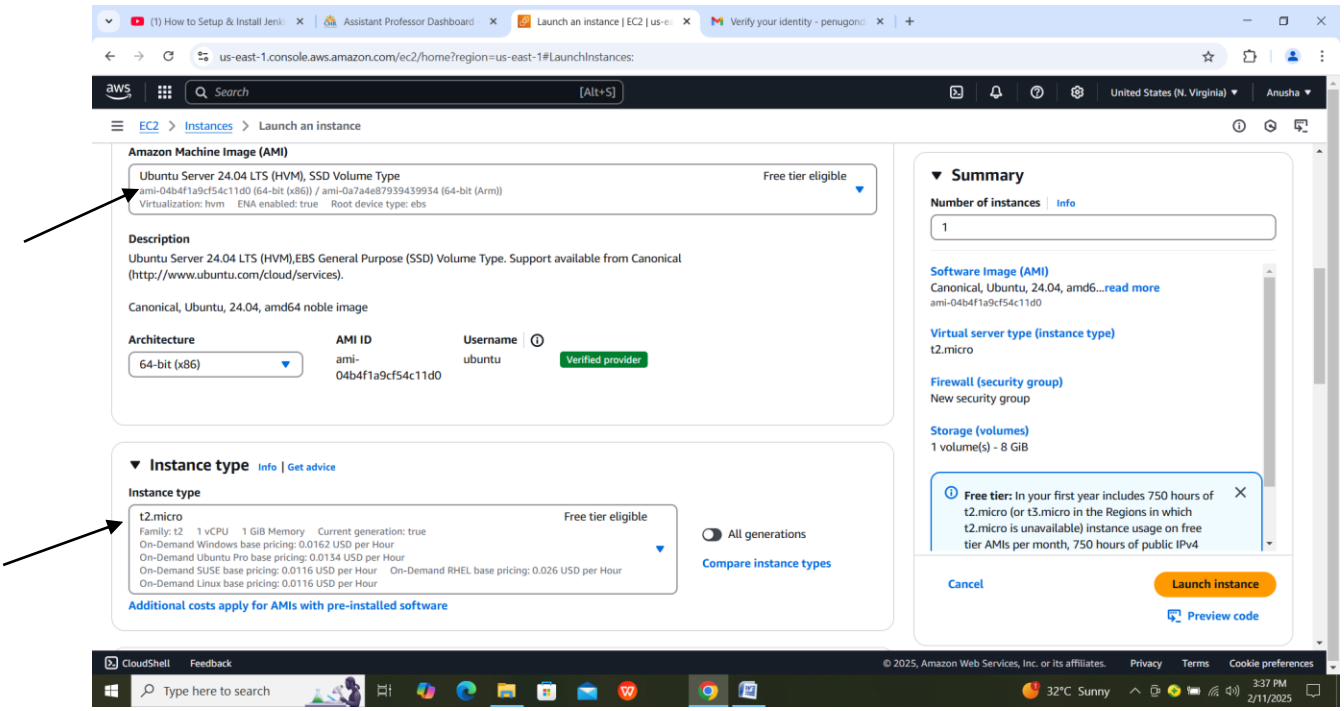




Step 3:-Next Lunch the Instances,next page give name Jenkins-Demo. Select Ubuntu option .Amazon Machine image Ubuntu server 24 and instance type t2.micro select free tier only.Next select Create new Key pair p3.After creating select p3. Next select checkbox Allow HTTPS traffic and Allow HTTP traffic. Now Launch instance.After Launching It is shown Successfully initiated launch of instance.


Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
Resources
EC2 Global View
You are using the following Amazon EC2 resources in the US East (N. Virginia) Region:
Instances (running) 0
Auto Scaling Groups 0
Capacity Reservations 0
Dedicated Hosts 0
Elastic IPs 0
Instances 0
Key pairs 0
Load balancers 0
Placement groups 0
Security groups 1
Snapshots 0
Volumes 0
Launch instance
To get started, launch an Amazon EC2 instance, which is a virtual server in the cloud.
Launch instance
Migrate a server
Note: Your instances will launch in the US East (N. Virginia) Region
Instance alarms
View in CloudWatch
Service health
AWS Health Dashboard
Region
US East (N. Virginia)
Status
This service is operating normally.
Zones
Zone name
Zone ID
us-east-1a
use1-az6
EC2 Free Tier
Info
Offers for all AWS Regions.
0 EC2 free tier offers in use
End of month forecast
0 offers forecasted to exceed free tier limit.
Exceeds free tier
0 offers exceeded and is now pay-as-you-go pricing.
View Global EC2 resources
View all AWS Free Tier offers
Account attributes
Default VPC
vpc-0a06788c976618b9d
Settings
Data protection and security
Allowed AMIs
Zones
EC2 Serial Console


EC2 > Instances > Launch an instance
Launch an instance
Info
Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.
Name and tags
Info
Name
Jenkins-Demo
Add additional tags
Application and OS Images (Amazon Machine Image)
Info
An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below
Search our full catalog including 1000s of application and OS images
Quick Start
Amazon Linux
macOS
Ubuntu
Windows
Red Hat
SUSE Linux
Debian
Browse more AMIs
Including AMIs from AWS, Marketplace and the Community
Amazon Machine Image (AMI)
Summary
Number of instances
Info
1
Software Image (AMI)
Amazon Linux 2023 AMI 2023.6.2...read more
ami-085ad6ae776d8f09c
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) instance usage on free tier AMIs per month, 750 hours of public IPv4
Cancel
Launch instance
Preview code


us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:
EC2 > Instances > Launch an instance
Amazon Machine Image (AMI)
Ubuntu Server 24.04 LTS (HVM), SSD Volume Type
Free tier eligible
Description
Ubuntu Server 24.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services).
Canonical, Ubuntu, 24.04, amd64 noble image
Architecture
64-bit (x86)
AMI ID
ami-04b4f1a9cf54c11d0
Username
ubuntu
Verified provider
Instance type
Info | Get advice
Instance type
t2.micro
Free tier eligible
All generations
Compare instance types
Additional costs apply for AMIs with pre-installed software
Summary
Number of instances
Info
1
Software Image (AMI)
Canonical, Ubuntu, 24.04, amd6...read more
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) instance usage on free tier AMIs per month, 750 hours of public IPv4
Cancel
Launch instance
Preview code
CloudShell
Feedback
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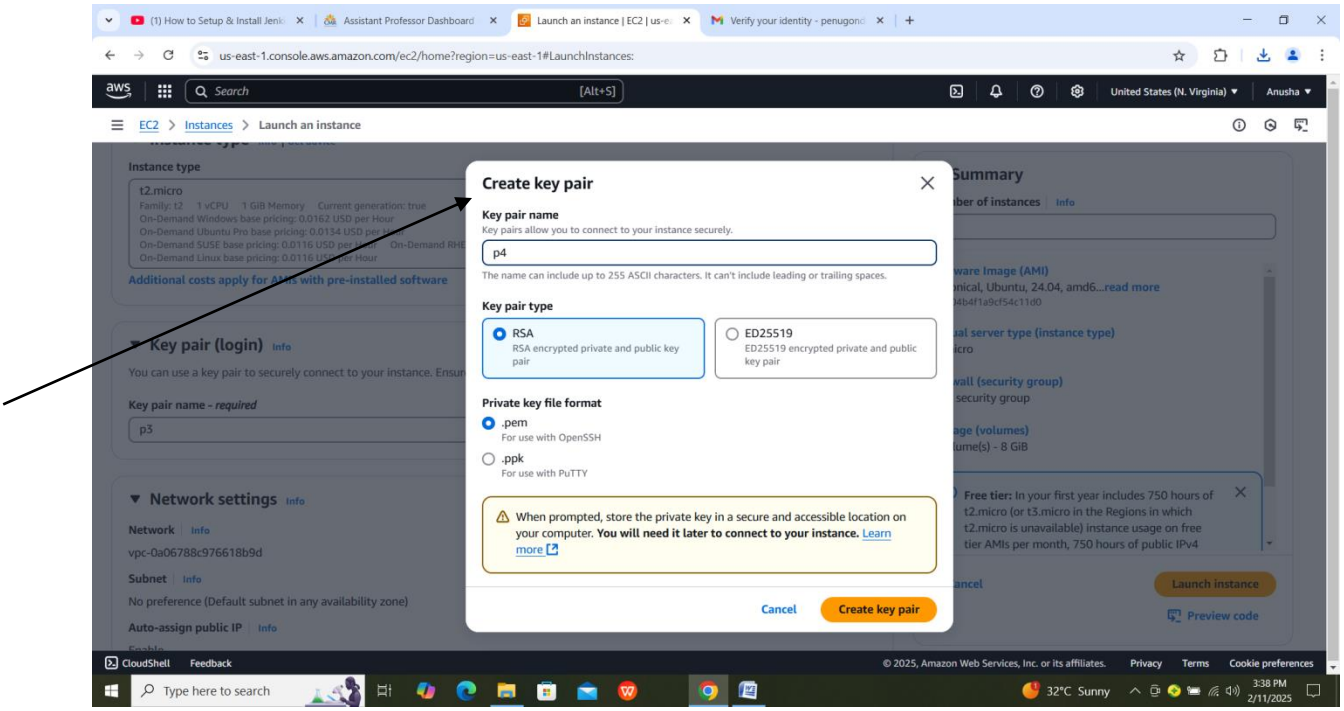
Privacy
Terms
Cookie preferences
Type here to search
32°C Sunny
3:37 PM
2/11/2025


us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:
EC2 > Instances > Launch an instance
Create key pair
Key pair name
Key pairs allow you to connect to your instance securely.
p4
The name can include up to 255 ASCII characters. It can't include leading or trailing spaces.
Key pair type
RSA
RSA encrypted private and public key pair
ED25519
ED25519 encrypted private and public key pair
Private key file format
.pem
For use with OpenSSH
.ppk
For use with PuTTY
When prompted, store the private key in a secure and accessible location on your computer. You will need it later to connect to your instance. Learn more
Cancel
Create key pair
Key pair (login)
Key pair name - required
p3
Network settings
Network
vpc-0a06788c976618b9d
Subnet
No preference (Default subnet in any availability zone)
Auto-assign public IP
Launch instance
Preview code
CloudShell
Feedback
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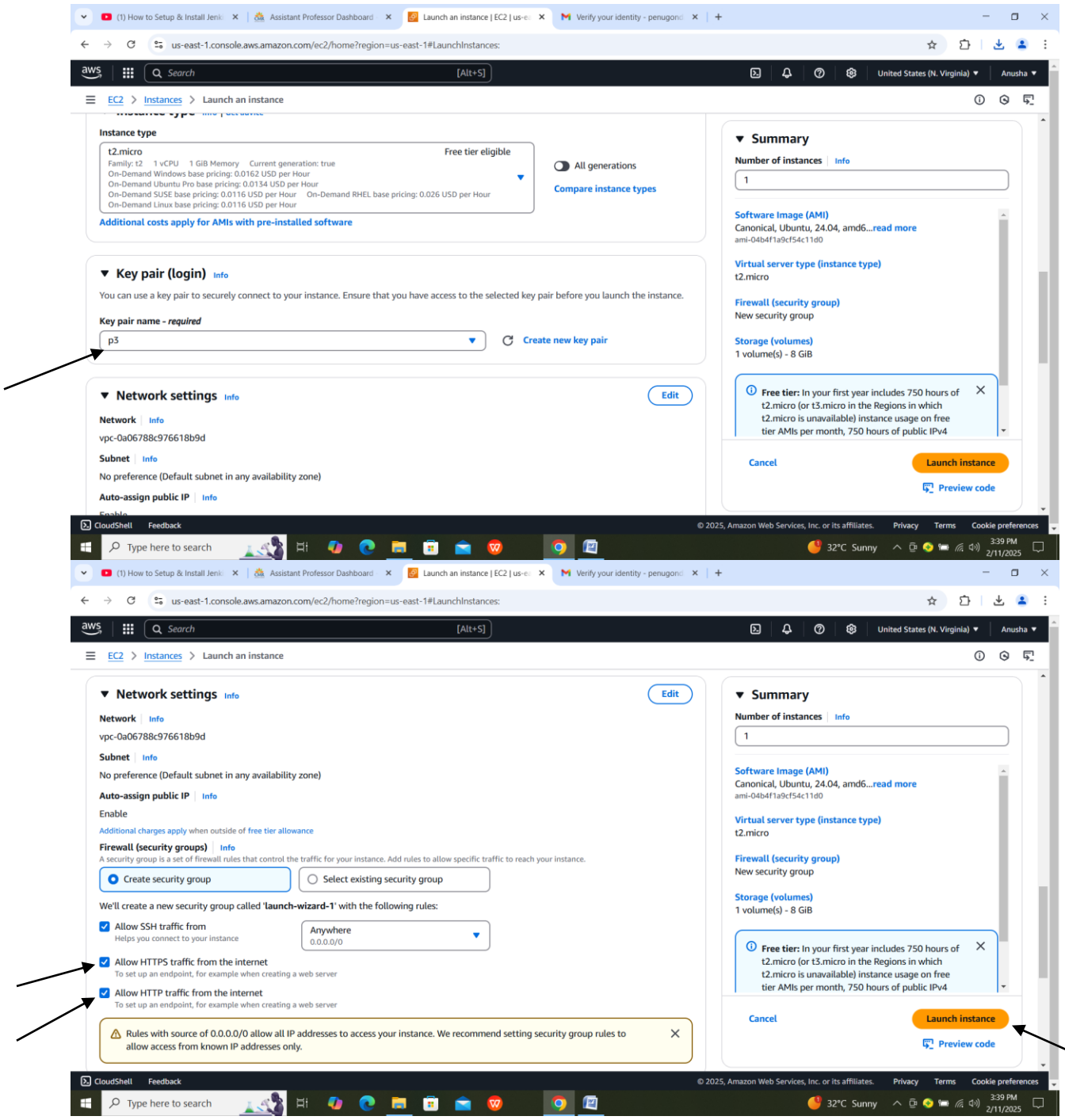
Privacy
Terms
Cookie preferences
Type here to search
32°C Sunny
3:38 PM
2/11/2025


us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#LaunchInstances:
EC2 > Instances > Launch an instance
Instance type
t2.micro
Free tier eligible
Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.0162 USD per Hour
On-Demand Ubuntu Pro base pricing: 0.0134 USD per Hour
On-Demand SUSE base pricing: 0.0116 USD per Hour On-Demand RHEL base pricing: 0.026 USD per Hour
On-Demand Linux base pricing: 0.0116 USD per Hour
All generations
Compare instance types
Additional costs apply for AMIs with pre-installed software
Key pair (login) Info
You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.
Key pair name - required
p3
Create new key pair
Network settings Info
Edit
Network Info
vpc-0a06788c976618b9d
Subnet Info
No preference (Default subnet in any availability zone)
Auto-assign public IP Info
Summary
Number of instances Info
1
Software Image (AMI)
Canonical, Ubuntu, 24.04, amd6...read more
ami-04b4f1a9cf54c11d0
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) instance usage on free tier AMIs per month, 750 hours of public IPv4
Cancel
Launch instance
Preview code
CloudShell Feedback
© 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences
Type here to search
32°C Sunny
3:39 PM
2/11/2025
Network settings Info
Edit
Network Info
vpc-0a06788c976618b9d
Subnet Info
No preference (Default subnet in any availability zone)
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
We'll create a new security group called 'launch-wizard-1' 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, 24.04, amd6...read more
ami-04b4f1a9cf54c11d0
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) instance usage on free tier AMIs per month, 750 hours of public IPv4
Cancel
Launch instance
Preview code
CloudShell Feedback
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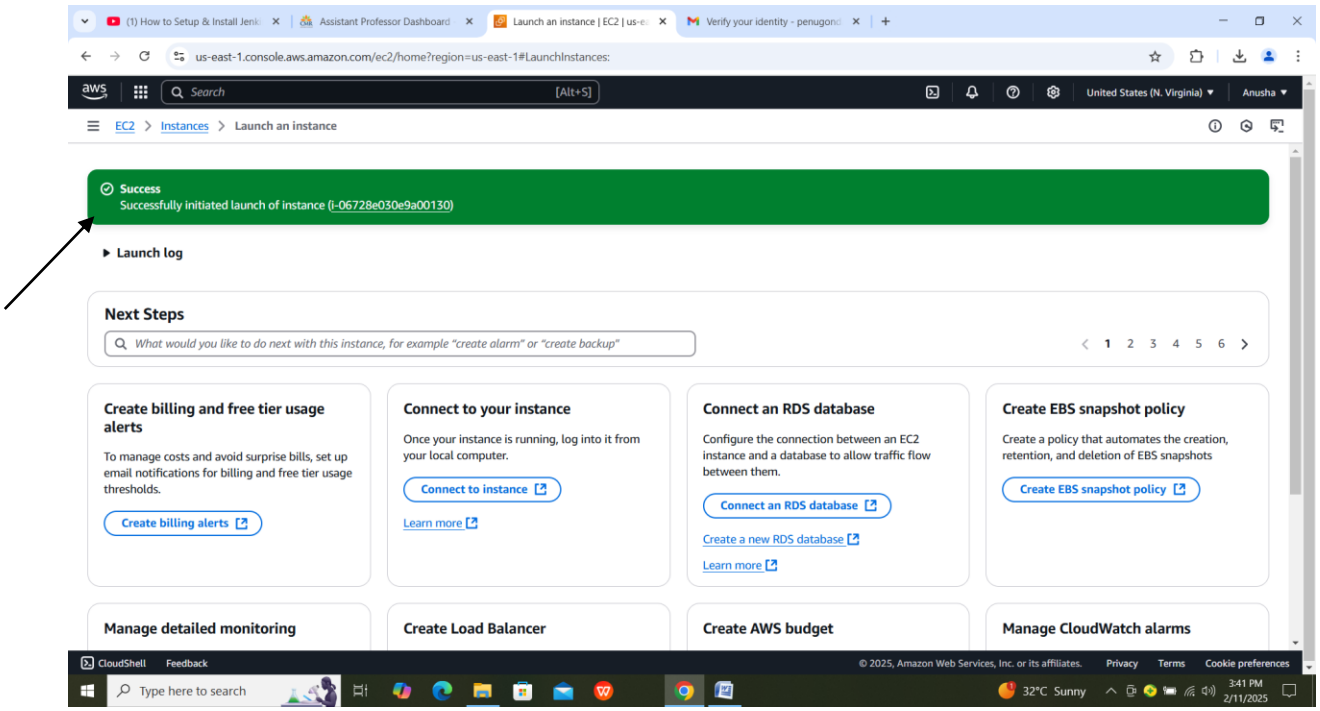
Type here to search
32°C Sunny
3:39 PM
2/11/2025



Step 4:-After Getting successful scroll down and select view all instances. Now this page showing running instances. Now our instance Jenkins-Demo is running . If not run refresh the page you will get running status.Now click on checkBox Jenkins-Demo then click on connect. Then It show Connect to instance Page. Here Select EC2 instance connect and click on connect.

Step 5:-Now It will open command Prompt just type below commands one by one and enter.

1. sudo apt update
2. sudo apt install openjdk-8-jdk –y

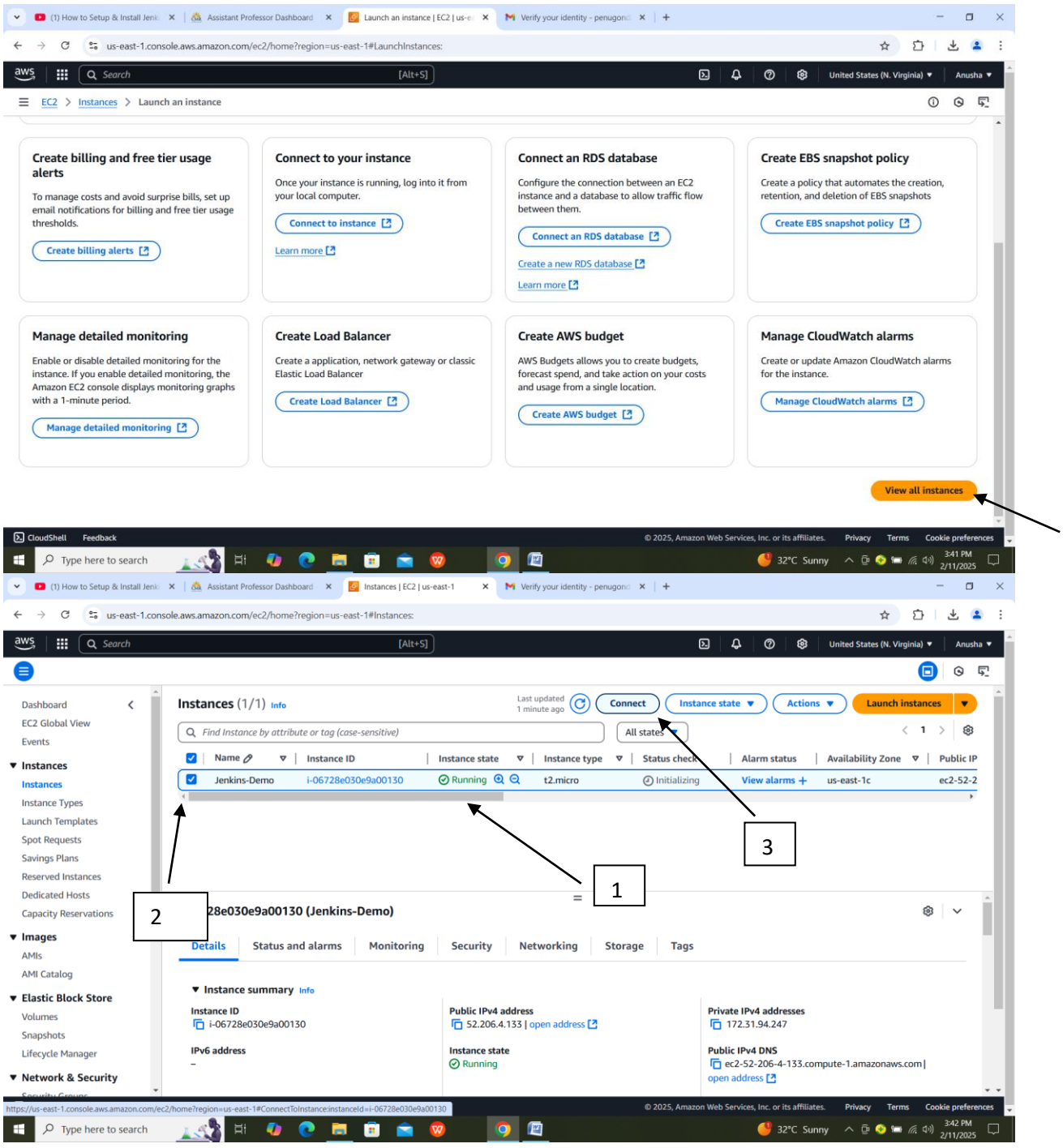
Step 6:- open chrome and type pkg.jenkins.io(website) it will open Index of/ page select debian-stable/ . ones go to below picture arrow marks to copy one by one and enter. When finally installing it is asking (Y/N):Y type Y.

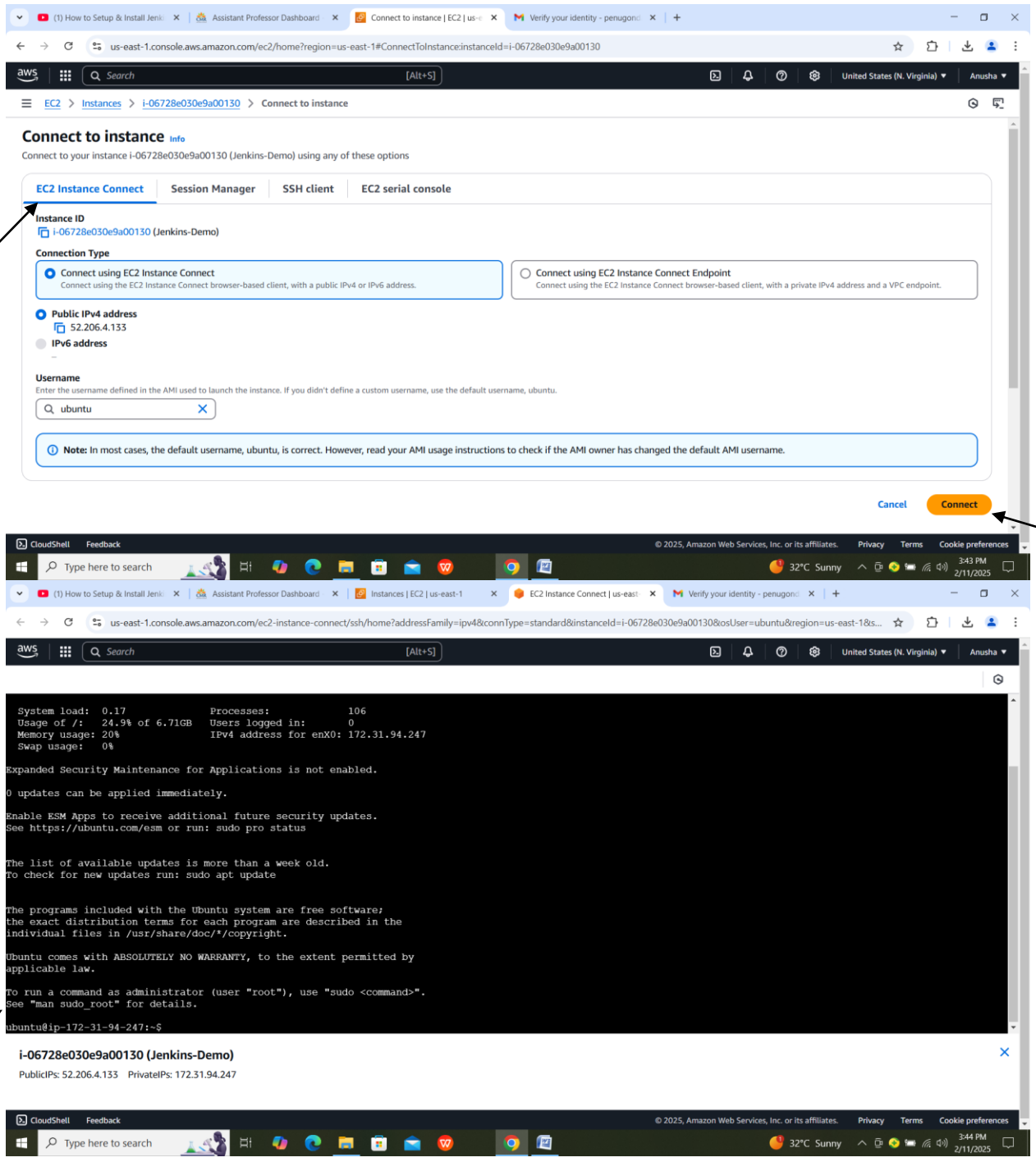
Next also do following commands

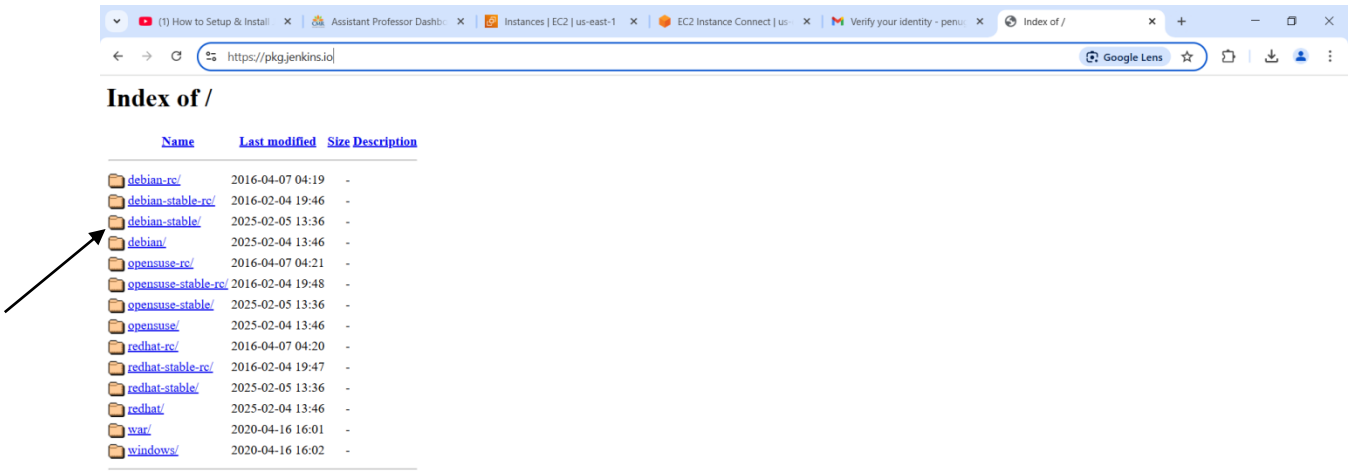
sudo systemctl start Jenkins

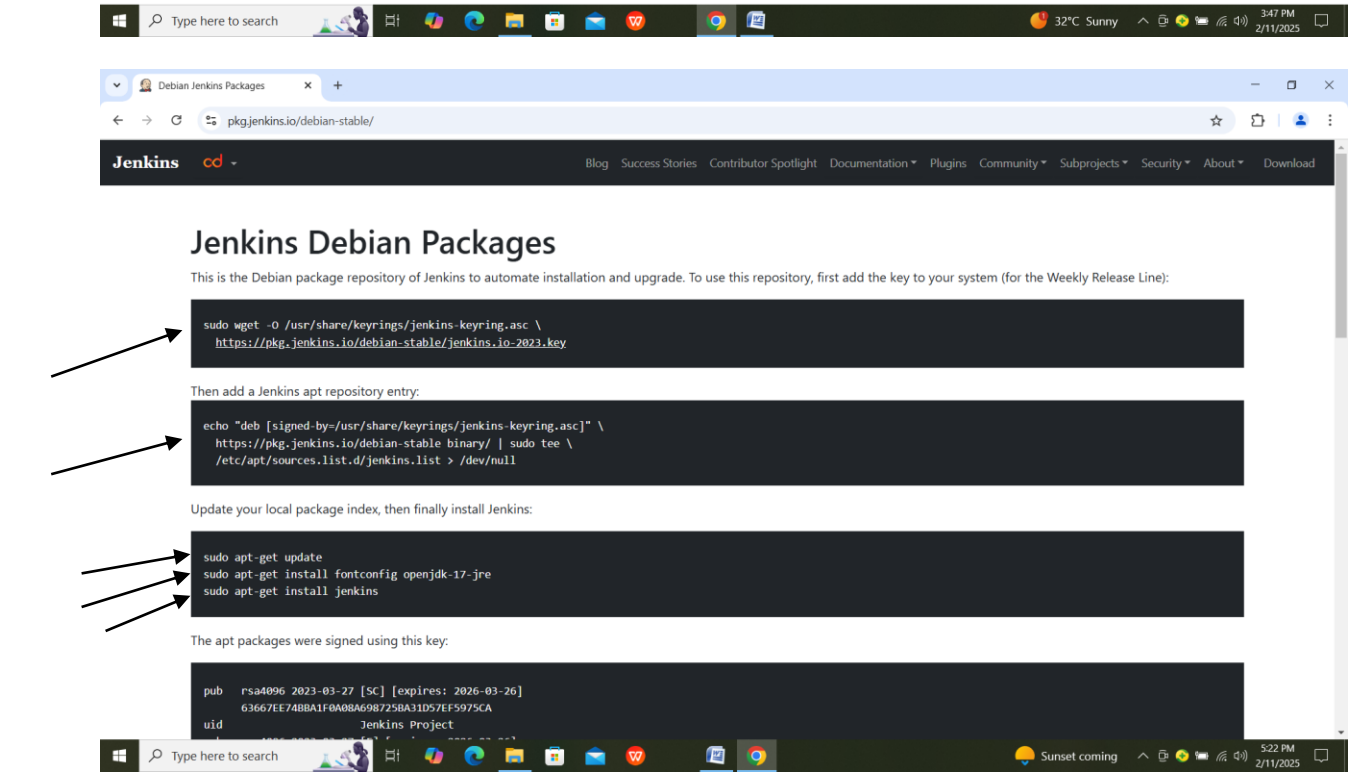
sudo systemctl enable jenkins

sudo systemctl status jenkins

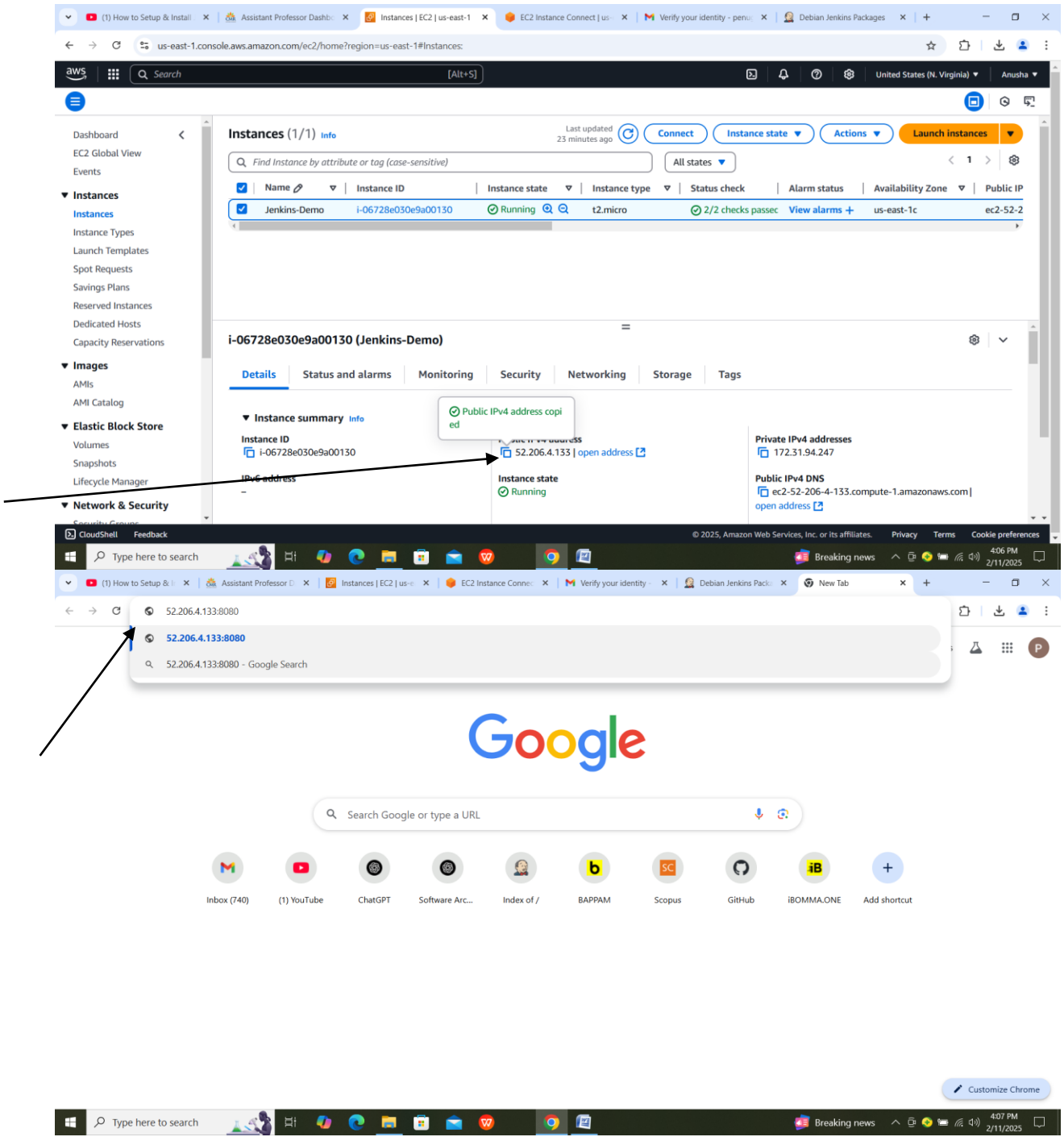

Create billing and free tier usage alerts
To manage costs and avoid surprise bills, set up email notifications for billing and free tier usage thresholds.
Create billing alerts
Connect to your instance
Once your instance is running, log into it from your local computer.
Connect to instance
Learn more
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
Create EBS snapshot policy
Create a policy that automates the creation, retention, and deletion of EBS snapshots
Create EBS snapshot policy
Manage detailed monitoring
Enable or disable detailed monitoring for the instance. If you enable detailed monitoring, the Amazon EC2 console displays monitoring graphs with a 1-minute period.
Manage detailed monitoring
Create Load Balancer
Create a application, network gateway or classic Elastic Load Balancer
Create Load Balancer
Create AWS budget
AWS Budgets allows you to create budgets, forecast spend, and take action on your costs and usage from a single location.
Create AWS budget
Manage CloudWatch alarms
Create or update Amazon CloudWatch alarms for the instance.
Manage CloudWatch alarms
View all instances
Instances (1/1)
Connect
Instance state
Actions
Launch instances
Jenkins-Demo
i-06728e030e9a00130
Running
t2.micro
Initializing
View alarms
us-east-1c
1
2
3
Details
Status and alarms
Monitoring
Security
Networking
Storage
Tags
Instance summary
Instance ID
i-06728e030e9a00130
Public IPv4 address
52.206.4.133 | open address
Private IPv4 addresses
172.31.94.247
IPv6 address
Instance state
Running
Public IPv4 DNS
ec2-52-206-4-133.compute-1.amazonaws.com | open address


Connect to instance | EC2 | us-east-1
us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#ConnectToInstance:instanceId=i-06728e030e9a00130
Search [Alt+S]
United States (N. Virginia)
Anusha
EC2 > Instances > i-06728e030e9a00130 > Connect to instance
Connect to instance Info
Connect to your instance i-06728e030e9a00130 (Jenkins-Demo) using any of these options
EC2 Instance Connect
Session Manager
SSH client
EC2 serial console
Instance ID
i-06728e030e9a00130 (Jenkins-Demo)
Connection Type
Connect using EC2 Instance Connect
Connect using the EC2 Instance Connect browser-based client, with a public IPv4 or IPv6 address.
Connect using EC2 Instance Connect Endpoint
Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.
Public IPv4 address
52.206.4.133
IPv6 address
Username
Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ubuntu.
ubuntu
Note: In most cases, the default username, ubuntu, is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.
Cancel
Connect
CloudShell
Feedback
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
Type here to search
32°C Sunny
3:43 PM
2/11/2025
EC2 Instance Connect | us-east-1
us-east-1.console.aws.amazon.com/ec2-instance-connect/ssh/home?addressFamily=ipv4&connType=standard&instanceId=i-06728e030e9a00130&osUser=ubuntu&region=us-east-1&s...
System load: 0.17
Processes: 106
Usage of /: 24.9% of 6.71GB
Users logged in: 0
Memory usage: 20%
IPv4 address for enX0: 172.31.94.247
Swap usage: 0%
Expanded Security Maintenance for Applications is not enabled.
0 updates can be applied immediately.
Enable ESM Apps to receive additional future security updates.
See https://ubuntu.com/esm or run: sudo pro status
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-172-31-94-247:~$
i-06728e030e9a00130 (Jenkins-Demo)
PublicIPs: 52.206.4.133 PrivateIPs: 172.31.94.247
3:44 PM

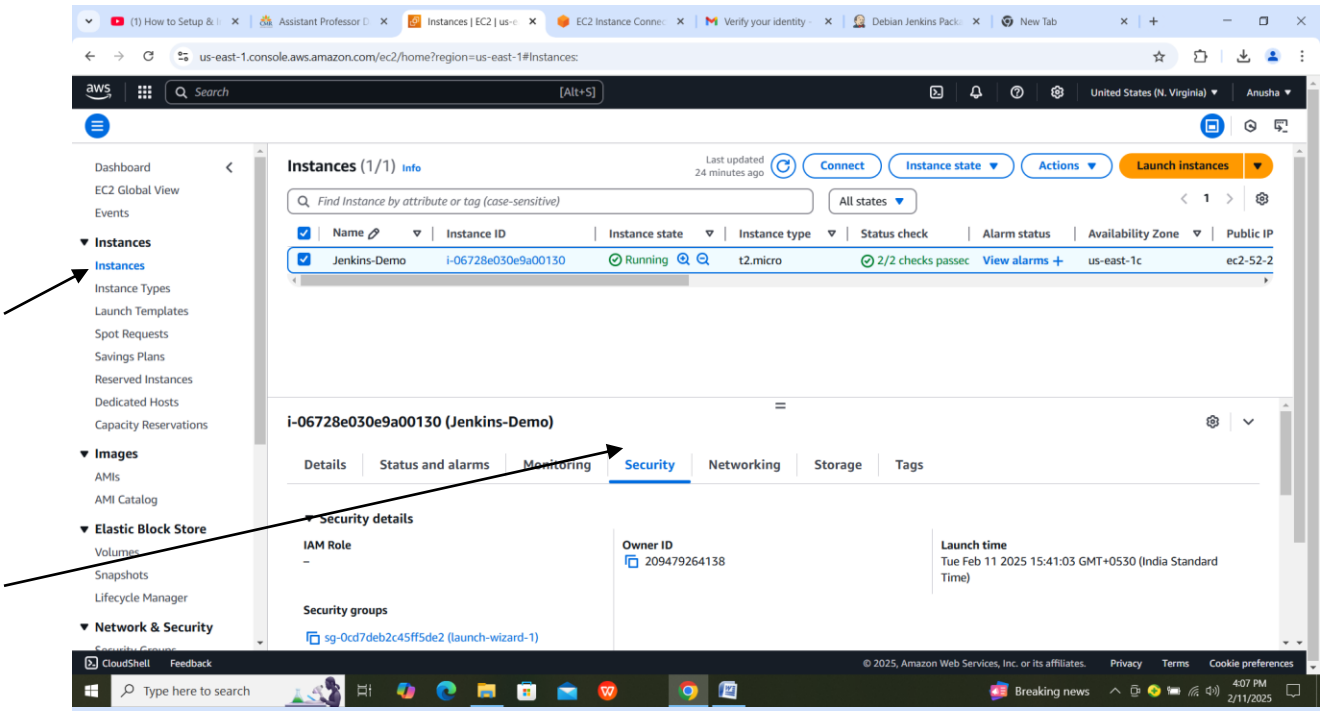


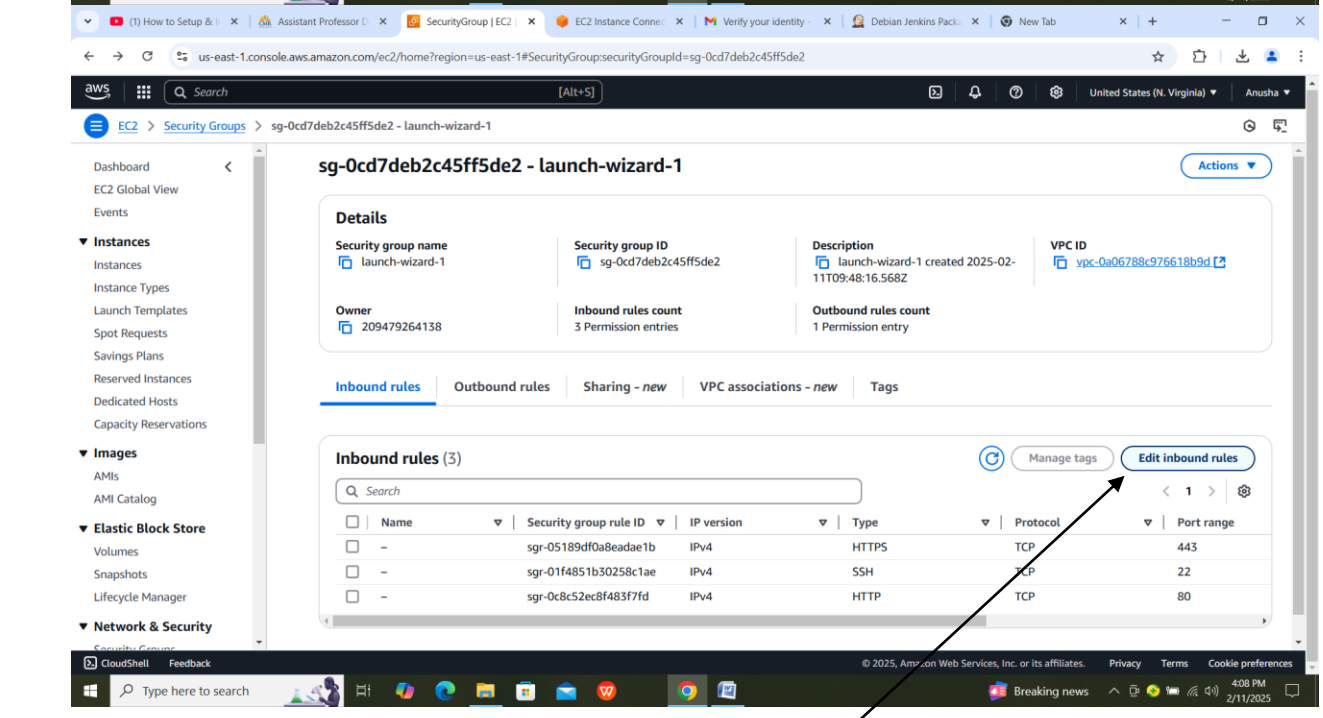


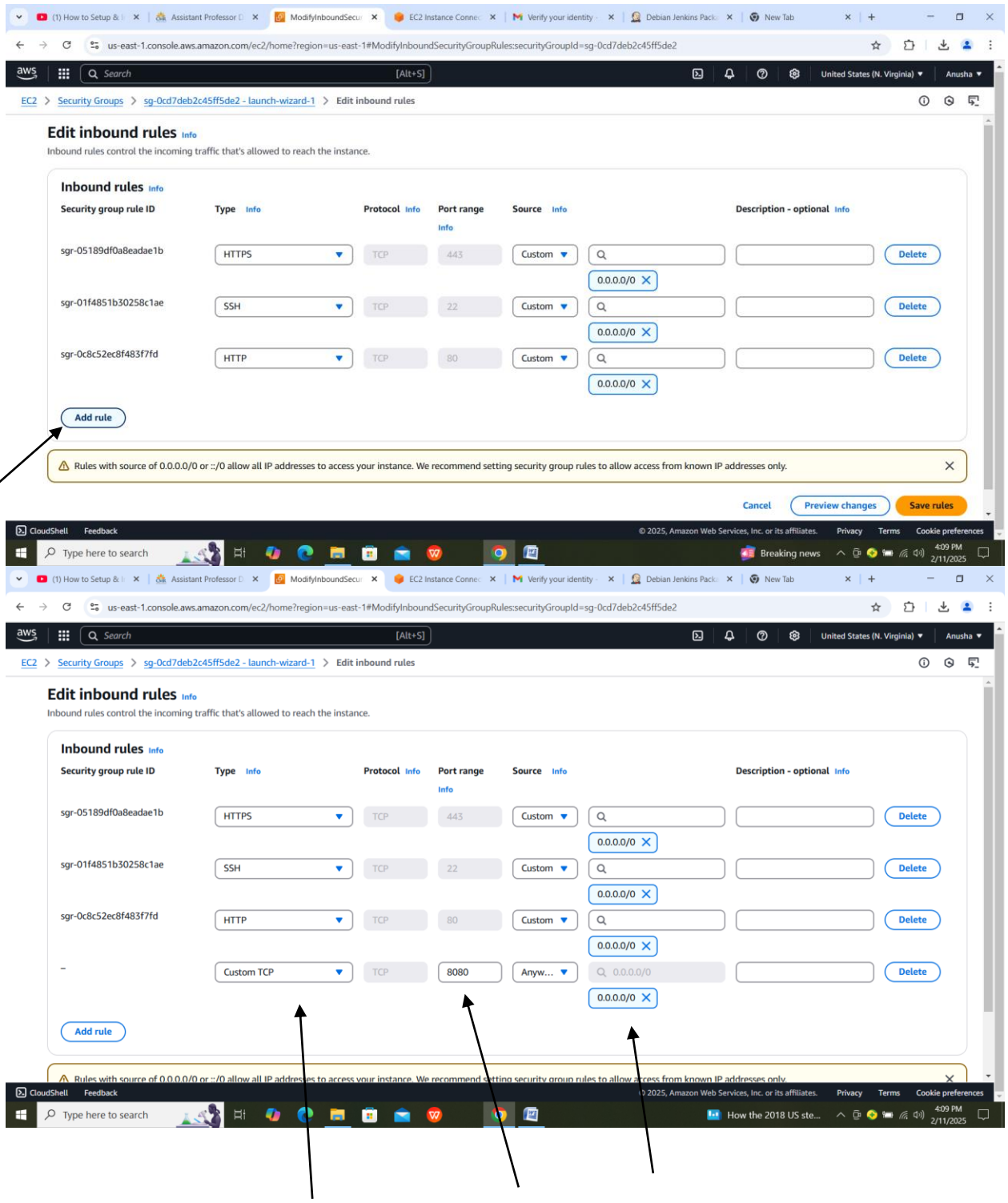
Step 7:-Copy Public IPV4 address paste in to new tab and also add :8080. It will visible when you create security group.

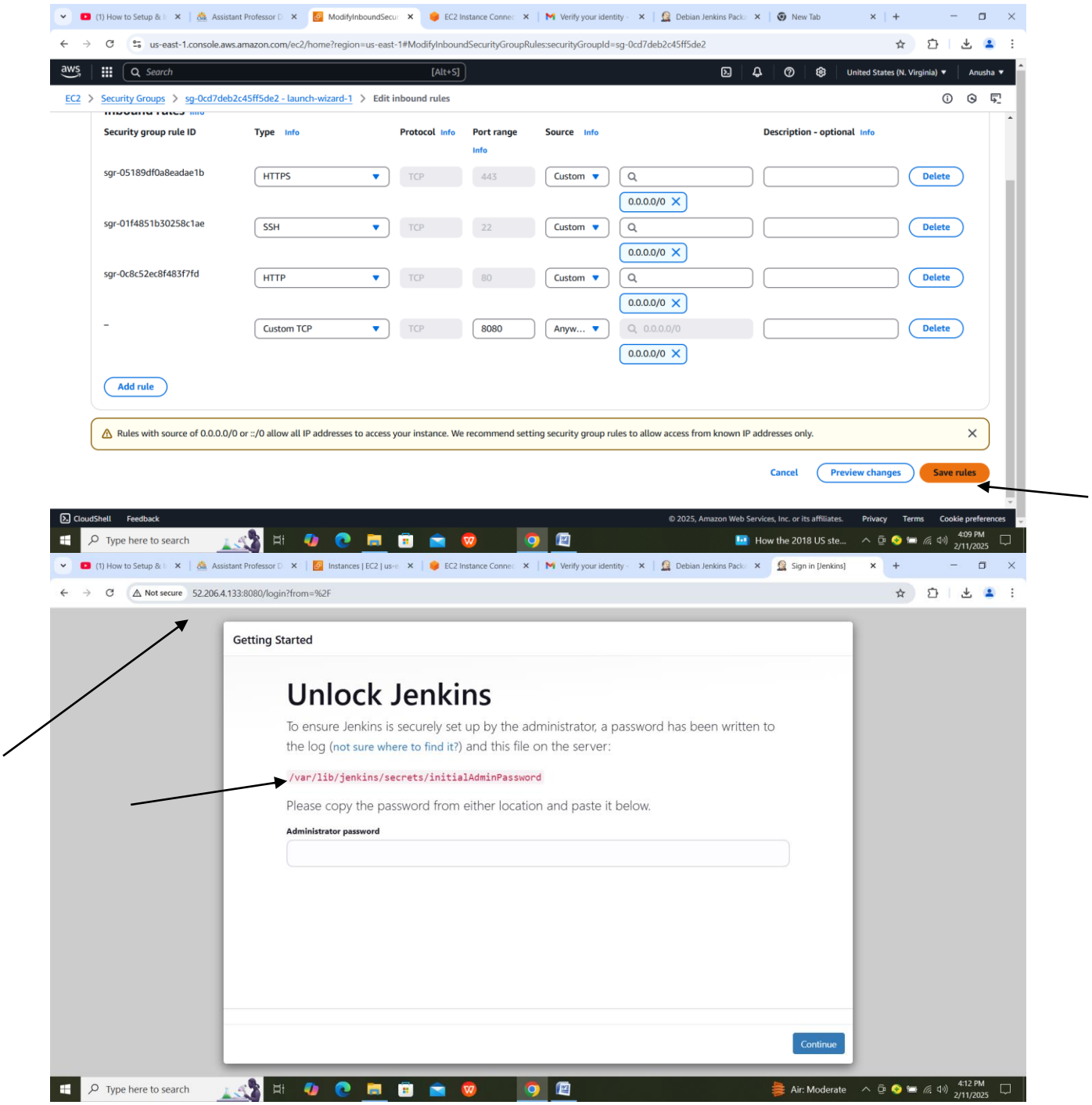


Step 8:-Next go to instances select security.Next Select Edit inbound rules.select add rule.Type:Custom TCP,Port range:8080,Info:0.0.0.0/0. Next click Save Rules.Now it will open website :8080 port number.

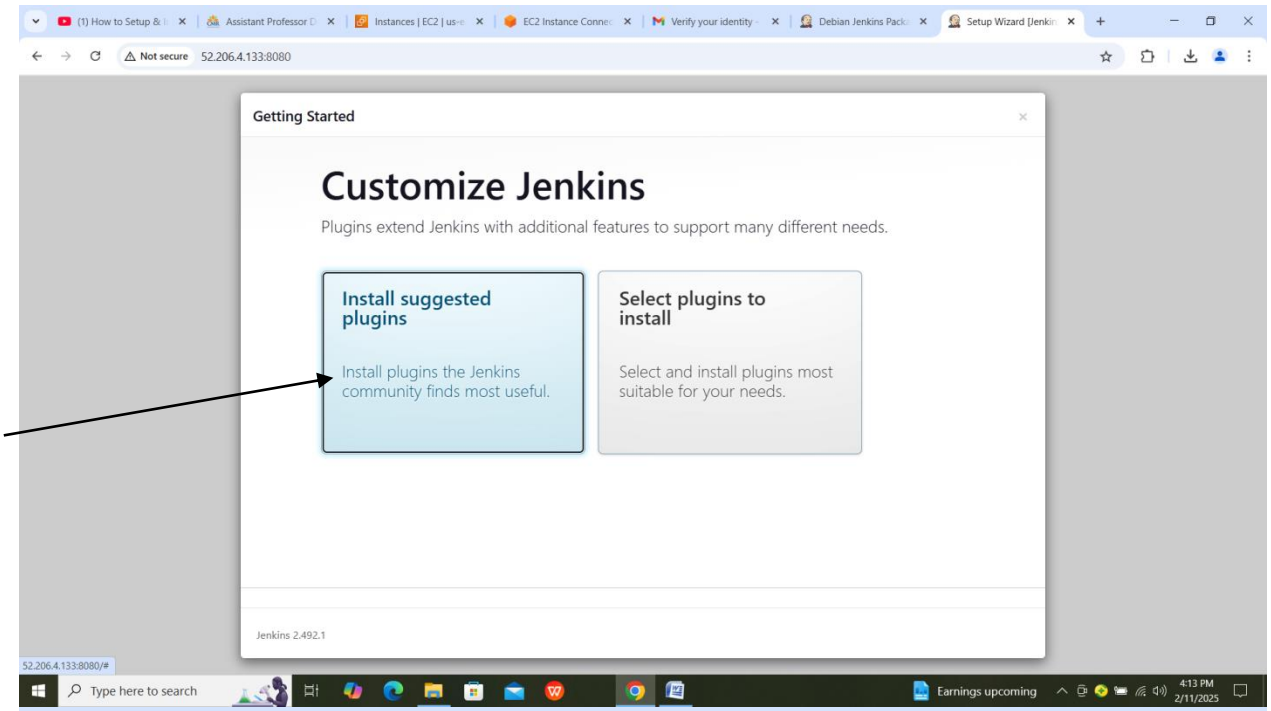

Instances (1/1) Info
Last updated 24 minutes ago
Connect
Instance state
Actions
Launch instances
Find Instance by attribute or tag (case-sensitive)
All states
Name
Instance ID
Instance state
Instance type
Status check
Alarm status
Availability Zone
Public IP
Jenkins-Demo
i-06728e030e9a00130
Running
t2.micro
2/2 checks passed
View alarms
us-east-1c
ec2-52-2
Dashboard
EC2 Global View
Events
Instances
Instances
Instance Types
Launch Templates
Spot Requests
Savings Plans
Reserved Instances
Dedicated Hosts
Capacity Reservations
Images
AMIs
AMI Catalog
Elastic Block Store
Volumes
Snapshots
Lifecycle Manager
Network & Security
i-06728e030e9a00130 (Jenkins-Demo)
Details
Status and alarms
Monitoring
Security
Networking
Storage
Tags
Security details
IAM Role
Owner ID
209479264138
Launch time
Tue Feb 11 2025 15:41:03 GMT+0530 (India Standard Time)
Security groups
sg-0cd7deb2c45ff5de2 (launch-wizard-1)

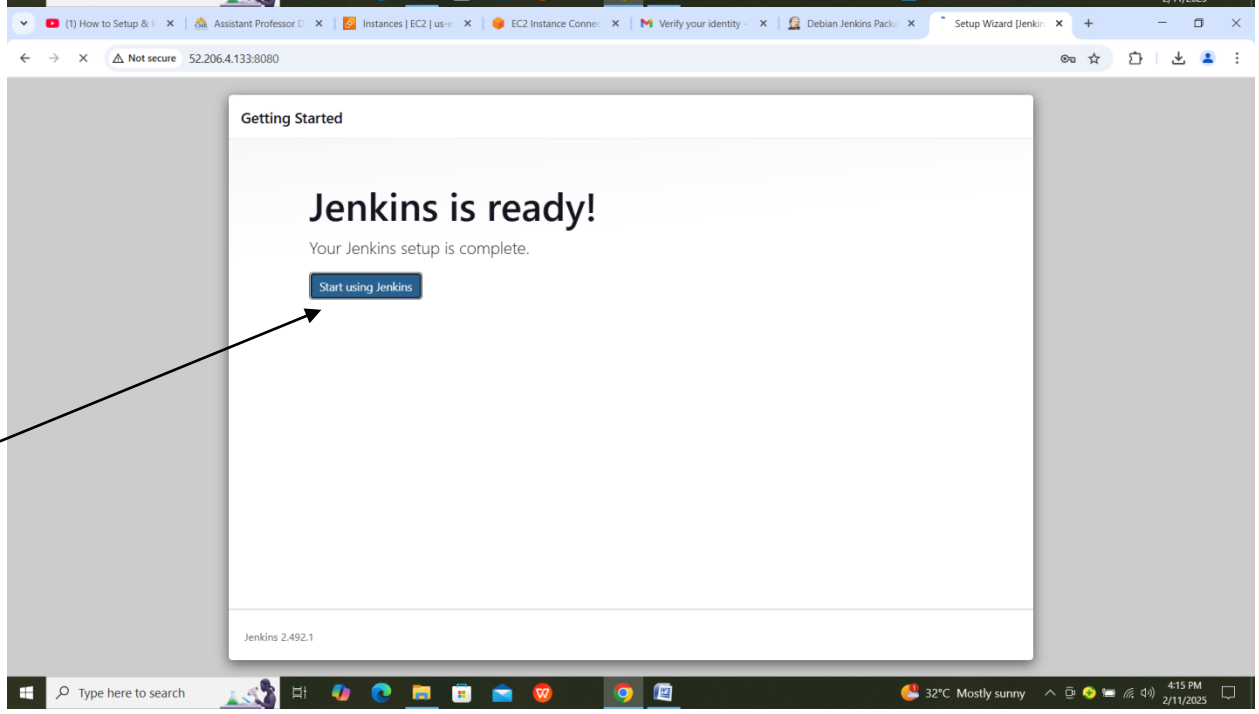

EC2 > Security Groups > sg-0cd7deb2c45ff5de2 - launch-wizard-1
sg-0cd7deb2c45ff5de2 - launch-wizard-1
Actions
Details
Security group name
launch-wizard-1
Security group ID
sg-0cd7deb2c45ff5de2
Description
launch-wizard-1 created 2025-02-11T09:48:16.568Z
VPC ID
vpc-0a06788c976618b9d
Owner
209479264138
Inbound rules count
3 Permission entries
Outbound rules count
1 Permission entry
Inbound rules
Outbound rules
Sharing - new
VPC associations - new
Tags
Inbound rules (3)
Manage tags
Edit inbound rules
Search
Name
Security group rule ID
IP version
Type
Protocol
Port range
sgr-05189df0a8eadae1b
IPv4
HTTPS
TCP
443
sgr-01f4851b30258c1ae
IPv4
SSH
TCP
22
sgr-0c8c52ec8f483f7fd
IPv4
HTTP
TCP
80

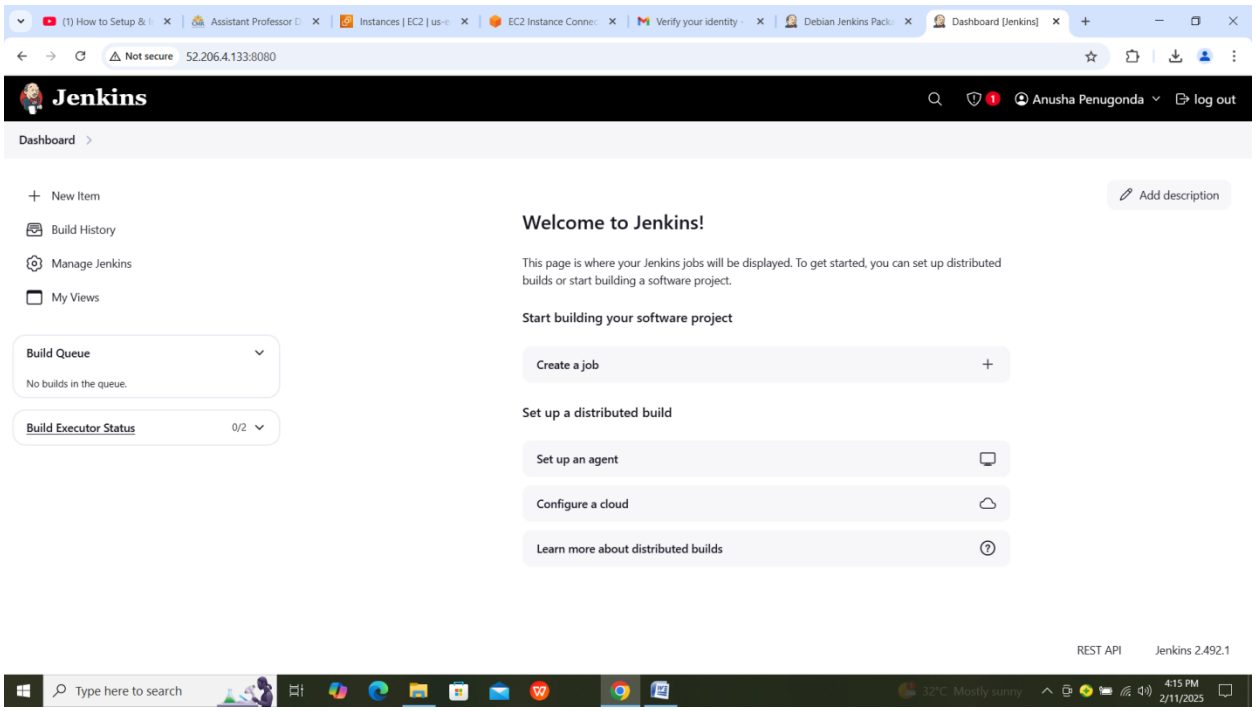

us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#ModifyInboundSecurityGroupRules:securityGroupId=sg-0cd7deb2c45ff5de2
EC2 > Security Groups > sg-0cd7deb2c45ff5de2 - launch-wizard-1 > Edit inbound rules
Edit inbound rules Info
Inbound rules control the incoming traffic that's allowed to reach the instance.
Inbound rules Info
Security group rule ID
Type Info
Protocol Info
Port range Info
Source Info
Description - optional Info
sgr-05189df0a8eadae1b
HTTPS
TCP
443
Custom
0.0.0.0/0
Delete
sgr-01f4851b30258c1ae
SSH
TCP
22
Custom
0.0.0.0/0
Delete
sgr-0c8c52ec8f483f7fd
HTTP
TCP
80
Custom
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.
Cancel
Preview changes
Save rules
CloudShell
Feedback
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
Type here to search
Breaking news
4:09 PM
2/11/2025
us-east-1.console.aws.amazon.com/ec2/home?region=us-east-1#ModifyInboundSecurityGroupRules:securityGroupId=sg-0cd7deb2c45ff5de2
EC2 > Security Groups > sg-0cd7deb2c45ff5de2 - launch-wizard-1 > Edit inbound rules
Edit inbound rules Info
Inbound rules control the incoming traffic that's allowed to reach the instance.
Inbound rules Info
Security group rule ID
Type Info
Protocol Info
Port range Info
Source Info
Description - optional Info
sgr-05189df0a8eadae1b
HTTPS
TCP
443
Custom
0.0.0.0/0
Delete
sgr-01f4851b30258c1ae
SSH
TCP
22
Custom
0.0.0.0/0
Delete
sgr-0c8c52ec8f483f7fd
HTTP
TCP
80
Custom
0.0.0.0/0
Delete
-
Custom TCP
TCP
8080
Anyw...
0.0.0.0/0
0.0.0.0/0
Delete
Add rule
CloudShell
Feedback
© 2025, Amazon Web Services, Inc. or its affiliates.
Privacy
Terms
Cookie preferences
Type here to search
How the 2018 US ste...
4:09 PM
2/11/2025



Step 9:-copy /var/lib/jenkins/secrets/initialAdminPassword paste it cmd and you get security code. Copy that code and paste it Administrator password. Select Install Suggested plugins. Next click Start Using Jenkins. Fill the details and sign in. Now it will open Jenkins Dashboard. You successfully setup jenkins on AWS.


Not secure
52.206.4.133:8080
Getting Started
Customize Jenkins
Plugins extend Jenkins with additional features to support many different needs.
Install suggested plugins
Install plugins the Jenkins community finds most useful.
Select plugins to install
Select and install plugins most suitable for your needs.
Jenkins 2.492.1
Type here to search
Earnings upcoming
4:13 PM
2/11/2025


Not secure
52.206.4.133:8080
Getting Started
Jenkins is ready!
Your Jenkins setup is complete.
Start using Jenkins
Jenkins 2.492.1
Type here to search
32°C Mostly sunny
4:15 PM
2/11/2025


(1) How to Setup &
Assistant Professor
Instances | EC2 | us-e
EC2 Instance Connec
Verify your identity -
Debian Jenkins Packa
Dashboard [Jenkins]
Not secure
52.206.4.133:8080
Jenkins
Anusha Penugonda
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 2.492.1
Type here to search
32°C Mostly sunny
4:15 PM
2/11/2025