New VPC Experience ✕
Tell us what you think

VPC dashboard
EC2 Global View ☑ New

Filter by VPC:

Select a VPC ▼

▼ Virtual private cloud
   Your VPCs
   Subnets
   Route tables
   Internet gateways
   Egress-only internet gateways
   Carrier gateways
   DHCP option sets
   Elastic IPs

Your VPCs (2) Info

Filter VPCs

< 1 > ⚙

	Name	▽	VPC ID	▽	State	▽	IPv4 CIDR	▽	IPv6 CIDR
☐	–		vpc-08f09f69ee33f718a		⊘ Available		172.31.0.0/16		–
☐	Shared VPC		vpc-038800e5d92072568		⊘ Available		10.5.0.0/16		–

Select a VPC above

Create VPC

VPC settings

Resources to create   Info
Create only the VPC resource or the VPC and other networking resources.

◉ VPC only   ○ VPC and more

Name tag - optional
Creates a tag with a key of 'Name' and a value that you specify.

Lab VPC

IPv4 CIDR block   Info
◉ IPv4 CIDR manual input
○ IPAM-allocated IPv4 CIDR block

IPv4 CIDR
10.0.0.0/16

IPv6 CIDR block   Info
◉ No IPv6 CIDR block
○ IPAM-allocated IPv6 CIDR block
○ Amazon-provided IPv6 CIDR block

Then create it.

Your VPCs (3) Info

Filter VPCs

	Name	VPC ID	State	IPv4 CIDR
☐	–	vpc-08f09f69ee33f718a	⊘ Available	172.31.0.0/16
☐	Lab VPC	vpc-0275ba4265a2a4604	⊘ Available	10.0.0.0/16
☐	Shared VPC	vpc-038800e5d92072568	⊘ Available	10.5.0.0/16

Select a VPC above

Edit DNS host name

Edit DNS hostnames Info

DNS hostnames settings
Indicates whether instances with public IP addresses get corresponding public DNS hostnames.

VPC ID

⬚ vpc-0275ba4265a2a4604

DNS hostnames

☑ Enable

> ⓘ On November 30th, 2022, these settings will be moved to 'Edit VPC settings'. To reach these settings, on the navigation pane click 'Your VPCs', select a VPC, and choose 'Actions' > 'Edit VPC settings'.
> Go to Edit VPC settings

Check enable and then save changes

Lets' create subnet

	Name	Subnet ID	State
☐	–	subnet-07de0dc52234cc178	⊘ Available
☐	Shared VPC Subnet 1	subnet-0eae8d382a76a8a3f	⊘ Available
☐	–	subnet-0f3e4bebae134524f	⊘ Available
☐	–	subnet-0a7f58a0015a60ab8	⊘ Available
☐	–	subnet-0092abbde98209831	⊘ Available
☐	–	subnet-0d83d5159c6f2253f	⊘ Available

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EC2 Global View ↗ New
Filter by VPC:
Select a VPC

▼ Virtual private cloud
Your VPCs
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DHCP option sets
Elastic IPs

Subnets (8) Info

Actions ▼   Create subnet

Q Filter subnets

< 1 >

Select a subnet

Subnet settings

Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

Subnet name
Create a tag with a key of 'Name' and a value that you specify.

Public Subnet

The name can be up to 256 characters long.

Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

US East (N. Virginia) / us-east-1a ▼

IPv4 CIDR block Info

🔍 10.0.0.0/24 ✕

▼ Tags - *optional*

Key		Value - *optional*		
🔍 Name ✕		🔍 Public Subnet ✕		Remove

Create
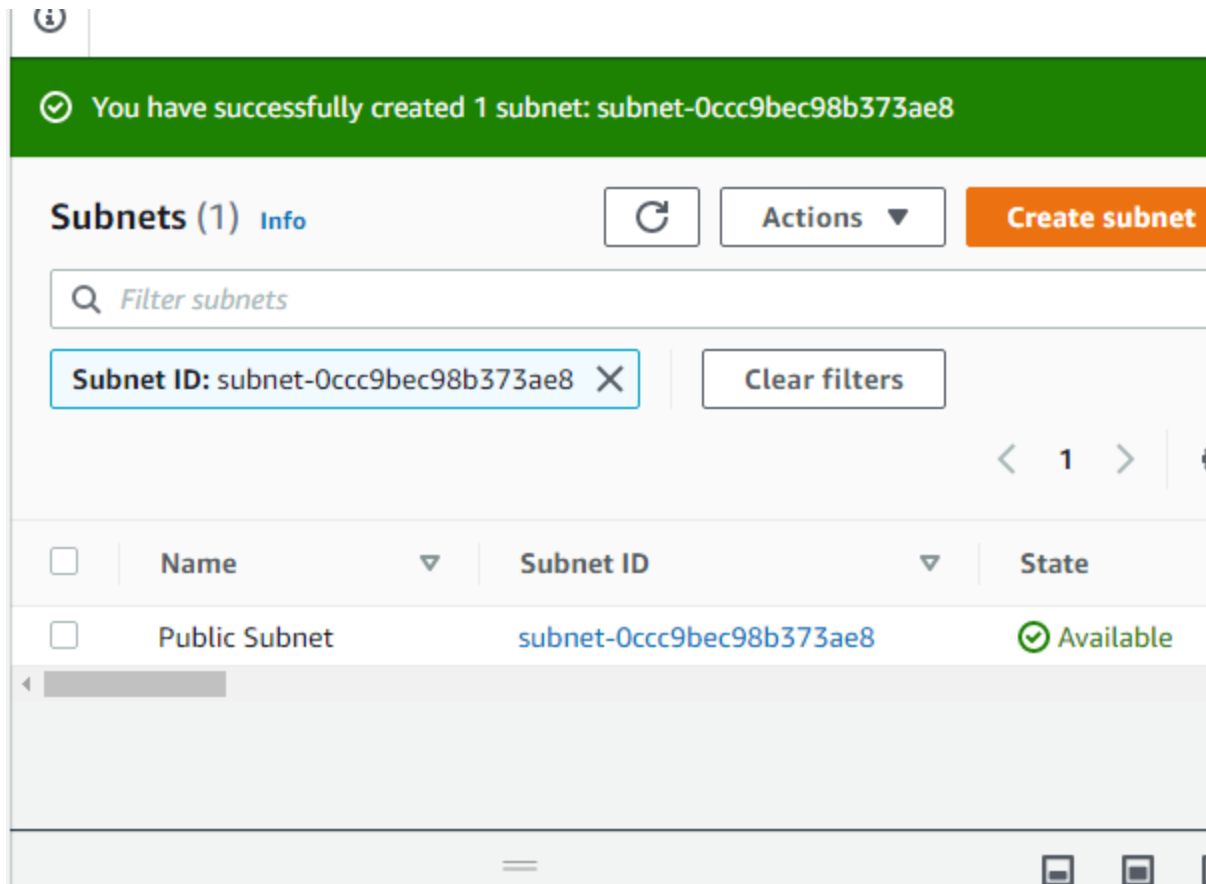
Let's change public subnet setting
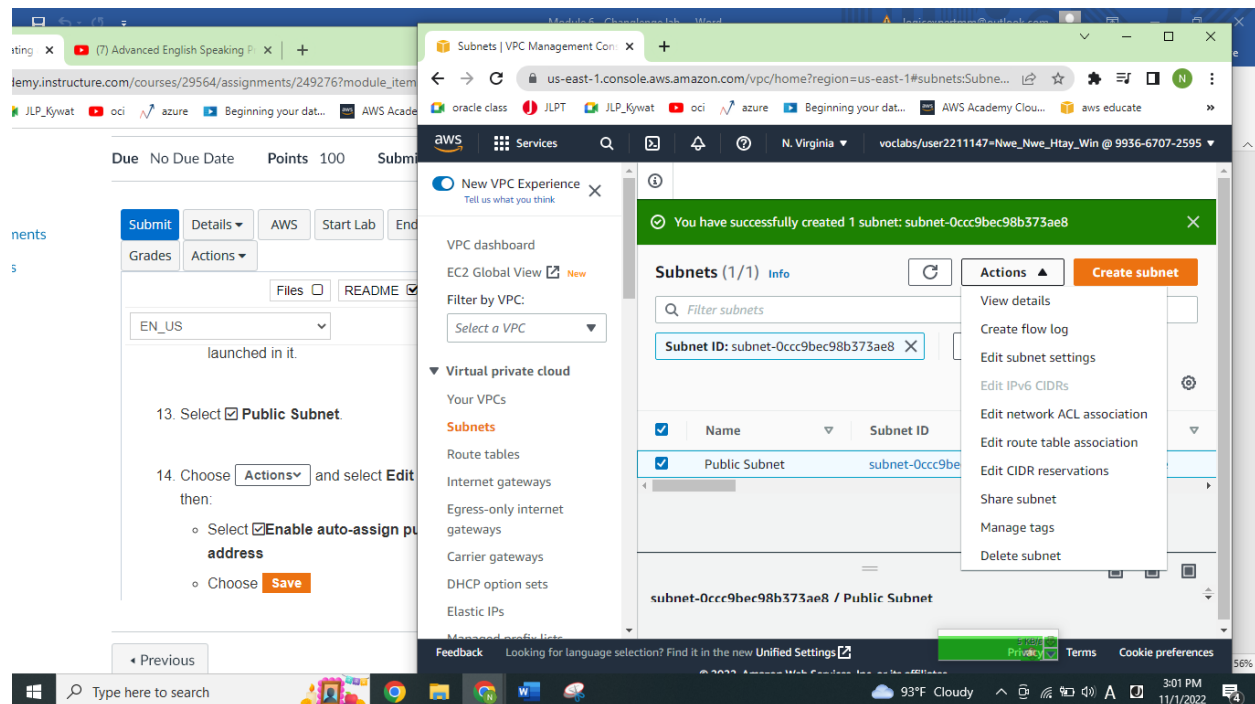
Enable auto-assign

Subnet

Subnet ID	Name
🗗 subnet-0ccc9bec98b373ae8	🗗 Public Subnet

Auto-assign IP settings Info

Enable the auto-assign IP settings to automatically request a public IPv4 or IPv6 address for a new network interface in this subnet.

☑ Enable auto-assign public IPv4 address Info

☐ Enable auto-assign customer-owned IPv4 address Info
   Option disabled because no customer owned pools found.

Let's create private subnet

Subnet settings

Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

Subnet name
Create a tag with a key of 'Name' and a value that you specify.

Private Subnet

The name can be up to 256 characters long.

Availability Zone Info
Choose the zone in which your subnet will reside, or let Amazon choose one for you.

US East (N. Virginia) / us-east-1a ▼

IPv4 CIDR block Info

🔍 10.0.2.0/23 ✕

▼ Tags - *optional*

Key	Value - *optional*	
🔍 Name ✕	🔍 Private Subnet ✕	Remove

Subnets (10) Info

Actions ▼ Create subnet

🔍 Filter subnets

< 1 >

☐	–	subnet-07de0dc52234cc178	⊘ Available	vpc-08f09f69ee33f718a	172.31.80.0/20
☐	Shared VPC Subnet 1	subnet-0eae8d382a76a8a3	logicexpertmm@outlook.com (logicexpertmm@outlook.com) is signed in Sh...		10.5.0.0/23
☐	–	subnet-0f3e4bebae134524f	⊘ Available	vpc-08f09f69ee33f718a	172.31.16.0/20
☐	Public Subnet	subnet-0ccc9bec98b373ae8	⊘ Available	vpc-0275ba4265a2a4604	La...	10.0.0.0/24
☐	–	subnet-0a7f58a0015a60ab8	⊘ Available	vpc-08f09f69ee33f718a	172.31.48.0/20
☐	–	subnet-0092abbde98209831	⊘ Available	vpc-08f09f69ee33f718a	172.31.0.0/20
☐	–	subnet-0d83d5159c6f2253f	⊘ Available	vpc-08f09f69ee33f718a	172.31.32.0/20
☐	Shared VPC Subnet 2	subnet-0d67644565315369c	⊘ Available	vpc-038800e5d92072568	Sh...	10.5.2.0/23
☐	–	subnet-060c4ca499c0b8b28	⊘ Available	vpc-08f09f69ee33f718a	172.31.64.0/20
☐	Private Subnet	subnet-0f2060db952246951	⊘ Available	vpc-0275ba4265a2a4604	La...	10.0.2.0/23

Let's create IG

ⓘ New VPC Experience ✕
Tell us what you think

VPC dashboard

EC2 Global View ↗ New

Filter by VPC:

Select a VPC ▼

▼ **Virtual private cloud**

Your VPCs

Subnets

Route tables

Internet gateways

Egress-only internet gateways

Carrier gateways

DHCP option sets

ⓘ

Internet gateways (1/1) Info

↻ Actions ▼ **Create internet gateway**

🔍 Filter internet gateways

< 1 >

☑	Name ▽	Internet gateway ID ▽

igw-0906f00cfa097c0d3

Details   Tags

Details

Internet gateway settings

Name tag
Creates a tag with a key of 'Name' and a value that you specify.

Lab IGW

Tags - *optional*
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.
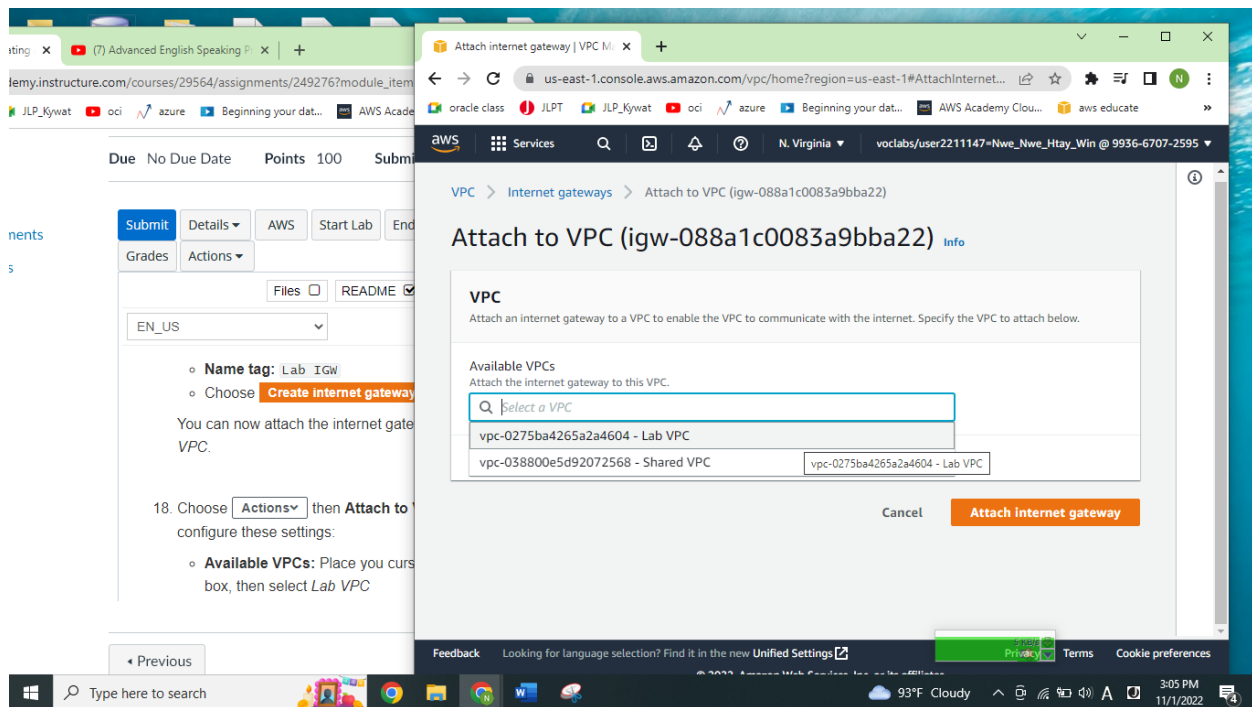
Key

🔍 Name ✕

Value - *optional*

🔍 Lab IGW ✕

Remove

Add new tag

You can add 49 more tags.

Cancel   **Create internet gateway**

Let's attach IG to VPC

Let's create route table

Create a route tables

Edit routes

Edit routes

Destination	Target	Status
10.0.0.0/16	🔍 local ✕	⊘ Active

Propagated

No

Edit routes

Destination	Target	Status
🔍 0.0.0.0/0 ✕	🔍 igw-088a1c0083a9bba2 ✕	—

Propagated

No

Routes	Subnet associations	Edge associations	Route propagation	Tags

Routes (2)

Edit routes

🔍 Filter routes   Both ▼   < 1 >   ⚙

Destination ▽	Target ▽	Status ▽	Propagated ▽
0.0.0.0/0	igw-088a1c0083a9bba22	⊘ Active	No
10.0.0.0/16	local	⊘ Active	No

Route propagation | **Tags**

Explicit subnet associations (0)

Edit subnet associations

🔍 Find subnet association

< 1 > ⚙

Subnet ID ▽	IPv4 CIDR ▽	IPv6 CIDR ▽

No subnet associations

You do not have any subnet associations.

Subnets without explicit associations (2)

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (1/2)

🔍 Filter subnet associations

< 1 > ⚙

☐	Name ▽	Subnet ID ▽	IPv4 CIDR ▽	IPv6 CIDR
☑	Public Subnet	subnet-0ccc9bec98b373ae8	10.0.0.0/24	–
☐	Private Subnet	subnet-0f2060db952246951	10.0.2.0/23	–

Selected subnets

Save association

DHCP option sets

Elastic IPs

Managed prefix lists

Endpoints

Endpoint services

NAT gateways

Peering connections

▼ **Security**

Network ACLs

Security groups

▼ **Network Analysis**

Reachability Analyzer

Network Access Analyzer

▼ **DNS firewall**

Security Groups (4) Info

Actions ▼   Export security groups to CSV   ▼

Create security group

🔍 Filter security groups

‹ 1 ›   ⚙

	Name	▽	Security group ID	▽	Security group name
☐	DB-SG		sg-06ad7d8cb002a6153		DB-SG
☐	–		sg-089b1080260e4445d		default
☐	–		sg-0d50706221883fae6		default
☐	–		sg-010169006792437a1		default

Basic details

Security group name   Info

App-SG

Name cannot be edited after creation.

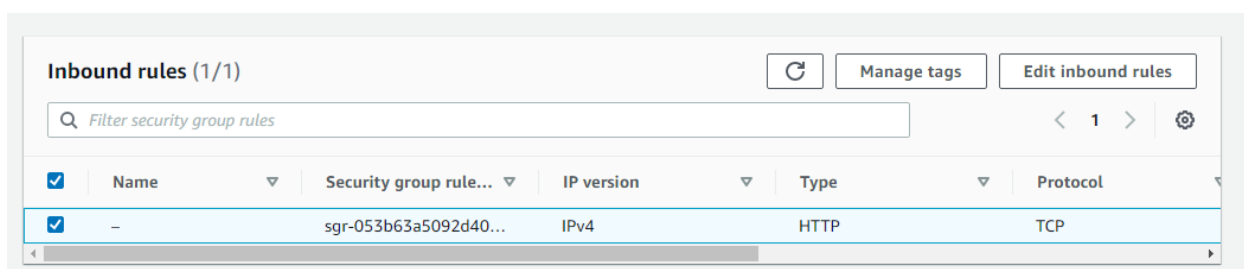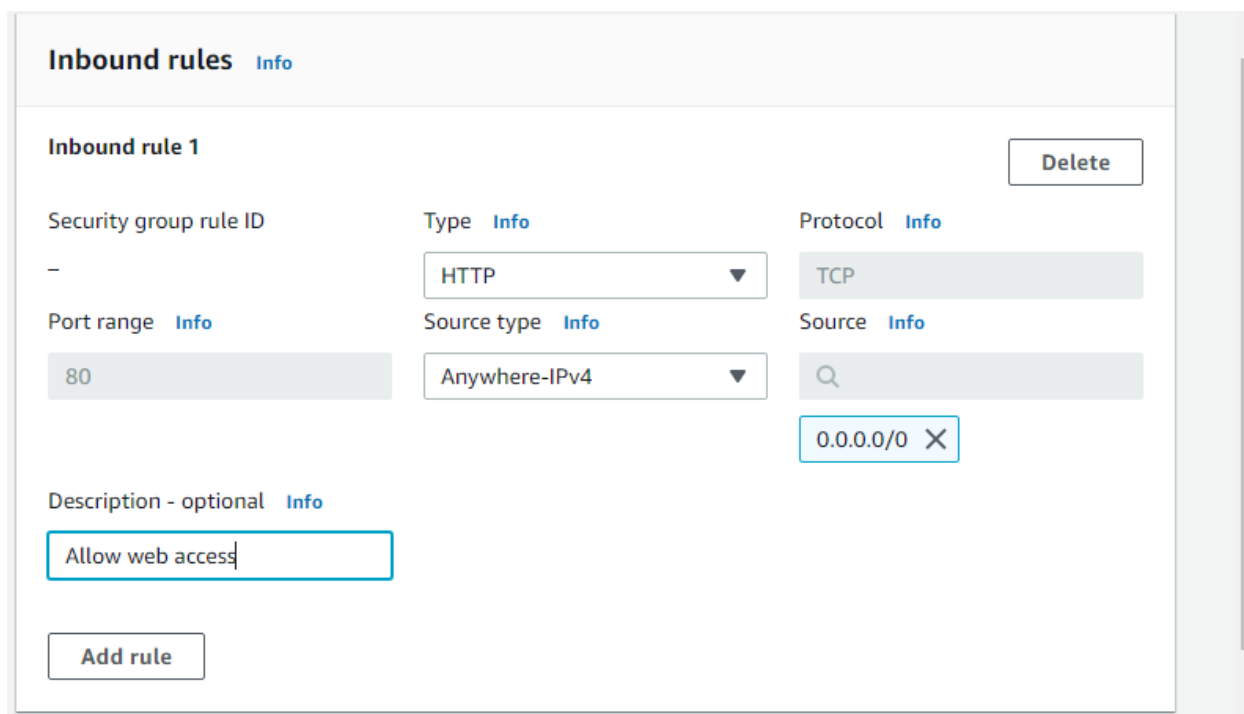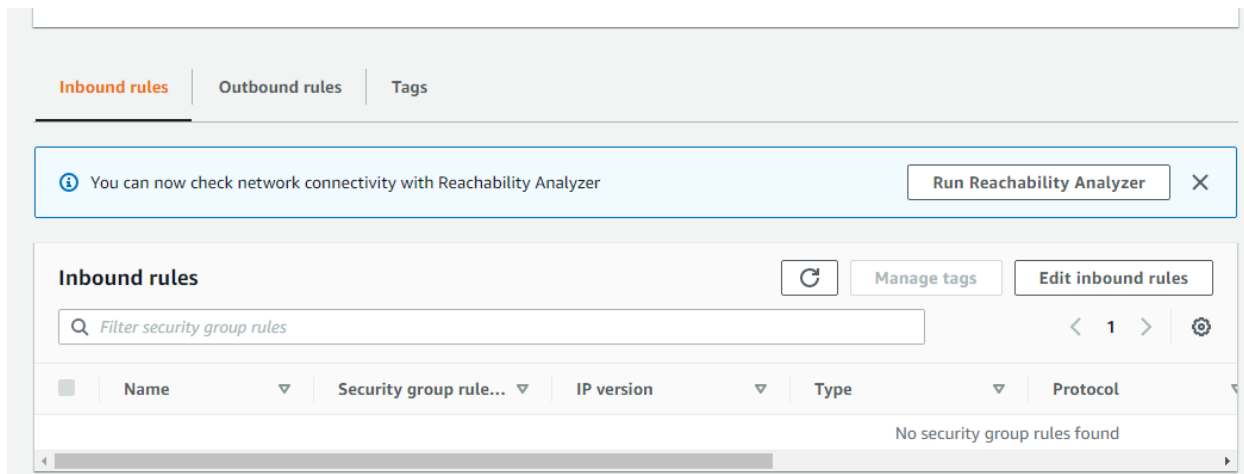Description   Info

Allow HTTP traffic

VPC   Info

🔍 vpc-0275ba4265a2a4604   ✕

Inbound rules   Info

Let's edit inbound rules

ⓘ You can now check network connectivity with Reachability Analyzer   Run Reachability Analyzer ✕

Inbound rules   ⟳   Manage tags   Edit inbound rules

🔍 Filter security group rules   ‹ 1 › ⚙

	Name ▽	Security group rule... ▽	IP version ▽	Type ▽	Protocol
			No security group rules found		

Inbound rules Info

Inbound rule 1   Delete

Security group rule ID   Type Info   Protocol Info

–   HTTP ▽   TCP

Port range Info   Source type Info   Source Info

80   Anywhere-IPv4 ▽   🔍

0.0.0.0/0 ✕

Description - optional Info

Allow web access

Add rule

Inbound rules (1/1)   ⟳   Manage tags   Edit inbound rules

🔍 Filter security group rules   ‹ 1 › ⚙

☑	Name ▽	Security group rule... ▽	IP version ▽	Type ▽	Protocol
☑	–	sgr-053b63a5092d40...	IPv4	HTTP	TCP

Task 6: Launching an application server in the public subnet

EC2

New EC2 Experience
Tell us what you think ✕

EC2 Dashboard

EC2 Global View

Events

Tags

Limits

▼ **Instances**

Instances New

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances New

Dedicated Hosts

Scheduled Instances

Resources   EC2 Global view ⬀   ↻   ⚙

You are using the following Amazon EC2 resources in the US East (N. Virginia) Region:

Instances (running)	0	Dedicated Hosts	0
Elastic IPs	0	Instances	0
Key pairs	1	Load balancers	⊗ API Error
Placement groups	0	Security groups	5
Snapshots	0	Volumes	0

ⓘ Easily size, configure, and deploy Microsoft SQL Server Always On   ✕
availability groups on AWS using the AWS Launch Wizard for SQL
Server. Learn more

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

App Server	Add additional tags

Amazon Linux	macOS	Ubuntu	Windows	Red Hat	S	Q
aws	Mac	ubuntu®	Microsoft	Red Hat		**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
ami-09d3b3274b6c5d4aa (64-bit (x86)) / ami-081dc0707789c2daf (64-bit (Arm))
Virtualization: hvm   ENA enabled: true   Root device type: ebs   Free tier eligible

Description

Amazon Linux 2 Kernel 5.10 AMI 2.0.20221004.0 x86_64 HVM gp2

Architecture   AMI ID

64-bit (x86)   ami-09d3b3274b6c5d4aa   **Verified provider**

▼ **Instance type** Info

Instance type

t2.micro   Free tier eligible
Family: t2   1 vCPU   1 GiB Memory
On-Demand Linux pricing: 0.0116 USD per Hour
On-Demand Windows pricing: 0.0162 USD per Hour   **Compare instance types**

▼ **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*

vockey   **Create new key pair**

VPC - *required* Info

vpc-0275ba4265a2a4604 (Lab VPC)
10.0.0.0/16 ▼

Subnet Info

subnet-0ccc9bec98b373ae8   Public Subnet
VPC: vpc-0275ba4265a2a4604   Owner: 993667072595
Availability Zone: us-east-1a   IP addresses available: 251   CIDR: 10.0.0.0/24 ▼

Create new subnet 🔗

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

Common security groups Info

Select security groups ▼

Compare security group rules

App-SG sg-071bb1eb3c9b5dfd5 ✕
VPC: vpc-0275ba4265a2a4604

Security groups that you add or remove here will be added to or removed from all your network interfaces.

▼ **Advanced details** Info

Purchasing option Info

☐ Request Spot Instances

Request Spot Instances at the Spot price, capped at the On-Demand price

Domain join directory Info

Select ▼

Create new directory 🔗

IAM instance profile Info

Inventory-App-Role
arn:aws:iam::993667072595:instance-profile/Inventory-App-Role ▼

Create new IAM profile 🔗

Hostname type Info

IP name ▼

DNS Hostname Info

☑ Enable IP name IPv4 (A record) DNS requests

User data Info

```
#!/bin/bash
# Install Apache Web Server and PHP
yum install -y httpd mysql
amazon-linux-extras install -y php7.2
# Download Lab files
wget https://aws-tc-largeobjects.s3-us-west-2.amazonaws.com/ILT-TF-200-
ACACAD-20-EN/mod6-guided/scripts/inventory-app.zip
unzip inventory-app.zip -d /var/www/html/
# Download and install the AWS SDK for PHP
wget https://github.com/aws/aws-sdk-php/releases/download/3.62.3/aws.zip
unzip aws -d /var/www/html
# Turn on web server
chkconfig httpd on
service httpd start
```

#!/bin/bash

Install Apache Web Server and PHP

yum install -y httpd mysql

amazon-linux-extras install -y php7.2

Download Lab files

wget https://aws-tc-largeobjects.s3-us-west-2.amazonaws.com/ILT-TF-200-ACACAD-20-EN/mod6-guided/scripts/inventory-app.zip

unzip inventory-app.zip -d /var/www/html/

Download and install the AWS SDK for PHP

wget https://github.com/aws/aws-sdk-php/releases/download/3.62.3/aws.zip

unzip aws -d /var/www/html

Turn on web server

chkconfig httpd on

service httpd start

…………….

Click Launch Instance

Copy IPv4