

Declaration	
Questions in this exercise are intentionally complex and could be convoluted or confusing. This is by design and to simulate real life situations where customers seldom give crystal clear requirements and ask unambiguous questions.	

I have read the above statement and agree to these conditions	
I AGREE	Pratibha Dixit
	<Enter your name above this line to indicate that you are in agreement>

Instructions
Every screenshot requested in this workbook is compulsory and carries 0.5 marks
Your AWS account ID must be clearly visible in every screenshot using the AWS console; missing id or using someone else's id is not permitted. Such cases will be considered as plagiarism and severe penalty will be imposed.
All screenshots must be in the order mentioned under "Expected Screenshots" for every step
DO NOT WAIT UNTIL THE LAST MINUTE.
The file should be renamed in the format BATCH_FIRSTNAME_LASTNAME_PROJECT1. For example: IITR_FSD_VIJAY_DWIVEDI_PROJECT1.docx

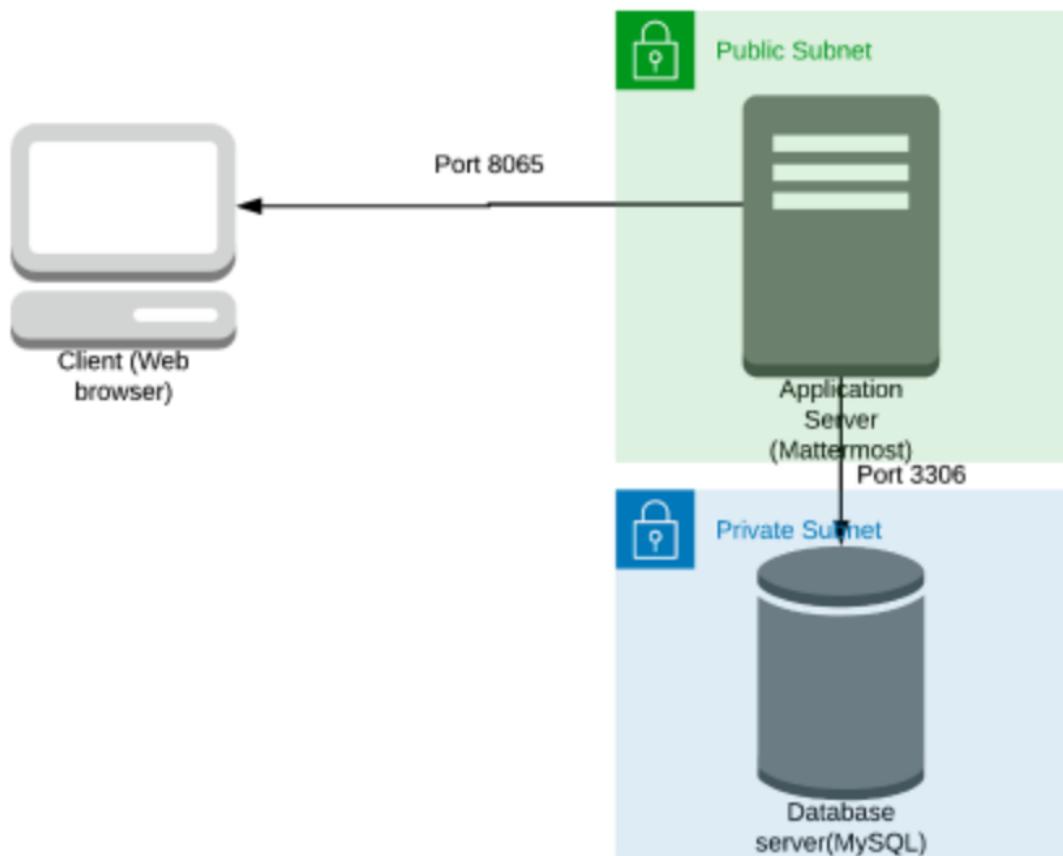
Resource Clean Up
Cloud is always pay per use model and all resources/services that we consume are chargeable. Cleaning up when you've completed your lab or project is always necessary. This is true whether you're doing a lab or implementing a project at your workplace.
After completing the lab, make sure to delete each resource created in reverse chronological order.

Scenario

Team communication and instant messaging solutions are an integral part of any business environment today. As of 2020, the total number of users of Slack and Microsoft Teams exceeded 20 million.

Some organizations might have compliance policies in place which do not allow them to use services managed by third parties. They will prefer solutions that can be managed and hosted on servers controlled by them. The same will extend to communication solutions as well.

Architecture diagram



Architecture Implementation	
1	Implement 2 different subnets (one public and the other private) in a custom VPC
2	Install and configure MySQL on an Amazon Linux 2 instance on the private subnet using the instructions provided. (Hint: Use a bastion host and a NAT gateway)

3	Install and configure Mattermost on an Amazon Linux 2 instance on the public subnet using the provided instructions.
4	Configure the security groups to allow the ports as shown in the architecture.
5	Test the installation by accessing the IP of the public instance in a browser via the port 8065.

Step 1: VPC and Subnet Creation

Step number	A
Step name	Creation of VPC
Instructions	<p>1) Navigate to VPC using the Services button at the top of the screen</p> <p>2) Select "Your VPCs" on the left side of the screen</p> <p>3) Click on "Create VPC"</p> <p>4) Enter the following fields :</p> <p>Name: Project 1 VPC</p> <p>IPv4 CIDR Block : 10.0.0.0/16</p> <p>The rest of the options can be ignored</p> <p>5) Select "Create VPC"</p> <p>6) Select the VPC and click on Actions->Edit DNS hostnames</p> <p>7) Enable DNS hostnames and click on Save</p>
Expected screenshots	<p>1) Created VPC with properties visible</p>

<Insert Screenshot a(1) here>

Launch AWS Academy Learn vpcs | VPC Console

us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#vpcs:

VPC dashboard

Your VPCs (1/2) Info

Name	VPC ID	State	IPv4 CIDR	IPv6 CIDR
-	vpc-0197c35aadfc5e5d	Available	172.31.0.0/16	-
<input checked="" type="checkbox"/> Project 1 VPC	vpc-04ffeee2303d2f4f1	Available	10.0.0.0/16	-

vpc-04ffeee2303d2f4f1 / Project 1 VPC

Details Resource map CIDs Flow logs Tags Integrations

Details

VPC ID vpc-04ffeee2303d2f4f1	State Available	DNS hostnames Enabled	DNS resolution Enabled
Tenancy Default	DHCP option set dopt-0a0feb8c0f35ac861	Main route table -	Main network ACL -
Default VPC No	IPv4 CIDR 10.0.0.0/16	IPv6 pool -	IPv6 CIDR (Network border group) -
Network Address Usage metrics Disabled	Route 53 Resolver DNS Firewall rule groups Failed to load rule groups	Owner ID 781284964726	

CloudShell Feedback

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Launch AWS Academy Learn VpcDetails | VPC Console

us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#VpcDetails:VpcId=vpc-04ffeee2303d2f4f1

VPC dashboard

VPC > Your VPCs > vpc-04ffeee2303d2f4f1

vpc-04ffeee2303d2f4f1 / Project 1 VPC

Actions

Details Info

VPC ID vpc-04ffeee2303d2f4f1	State Available	DNS hostnames Enabled	DNS resolution Enabled
Tenancy Default	DHCP option set dopt-0a0feb8c0f35ac861	Main route table rtb-0edf78eb152fbcad6	Main network ACL acl-0a1bf88b774ab48bf
Default VPC No	IPv4 CIDR 10.0.0.0/16	IPv6 pool -	IPv6 CIDR (Network border group) -
Network Address Usage metrics Disabled	Route 53 Resolver DNS Firewall rule groups Failed to load rule groups	Owner ID 781284964726	

Resource map CIDs Flow logs Tags Integrations

Resource map Info

VPC Show details Your AWS virtual network Project 1 VPC

Subnets (0) Subnets within this VPC

Route tables (1) Route network traffic to resources rtb-0edf78eb152fbcad6

CloudShell Feedback

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Step number	b
Step name	Creation of public subnet
Instructions	<p>1) Navigate to VPC->Subnets</p> <p>2) Click on "Create Subnet"</p> <p>3) Enter the following fields</p> <p>Name tag : Public Subnet</p> <p>VPC : Select the Project 1 VPC</p> <p>IPv4 CIDR block : 10.0.1.0/24</p> <p>The other options can be ignored</p> <p>4) Click on Create</p> <p>5) Once the subnet has been created, select the subnet and click on Actions->Modify Auto-assign IP settings</p> <p>6) Enable the option "Auto assign IPv4" and select Save</p>
Expected screenshots	1) Subnet Creation screen

<Insert Screenshot b(1) here>

The screenshot shows the AWS VPC Subnets page. In the top navigation bar, the URL is `us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#subnets:`. The main content area displays a table titled "Subnets (1/7) Info". A new subnet, "Public Subnet", has just been created and is listed with the following details:

Name	Subnet ID	State	VPC	IPv4 CIDR
Public Subnet	subnet-07b9de429469afceb	Available	vpc-04ffeee2303d2f4f1 Project 1	10.0.1.0/24

Below the table, the specific details for the "Public Subnet" are shown in a detailed view. The subnet ID is `subnet-07b9de429469afceb`, and it is associated with the VPC `vpc-04ffeee2303d2f4f1 | Project 1`. The IPv4 CIDR is `10.0.1.0/24`.

Launch AWS Academy Learn Subnets | VPC Management +

us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#subnets:subnetId=subnet-07b9de429469afceb

VPC dashboard Services Search [Option+S] N. Virginia v vocabs/user3607549=pratibhadixit549@gmail.com @ 7812-8496-4726 ▾

Subnets (1/1) Info Last updated less than a minute ago Actions Create subnet

Find resources by attribute or tag

Subnet ID : subnet-07b9de429469afceb Clear filters

Name Subnet ID State VPC IPv4 CIDR

Public Subnet subnet-07b9de429469afceb Available vpc-04ffeee2303d2f4f1 | Project 1 10.0.1.0/24

subnet-07b9de429469afceb / Public Subnet

Details Flow logs Route table Network ACL CIDR reservations Sharing Tags

Details

Subnet ID [] subnet-07b9de429469afceb	Subnet ARN [] arn:aws:ec2:us-east-1:781284964726:subnet/subnet-07b9de429469afceb	State Available	IPv4 CIDR [] 10.0.1.0/24
Available IPv4 addresses [] 251	IPv6 CIDR -	IPv6 CIDR association ID -	Availability Zone [] us-east-1e
Availability Zone ID [] use1-az3	Network border group [] us-east-1	VPC vpc-04ffeee2303d2f4f1 Project 1	Route table -
Network ACL -	Default subnet No	Auto-assign public IPv4 address Yes	Auto-assign IPv6 address No
Auto-assign customer-owned IPv4 address No	Customer-owned IPv4 pool -	Outpost ID -	IPv4 CIDR reservations -
			Resource name DNS A record

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Launch AWS Academy Learn SubnetDetails | VPC Console +

us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#SubnetDetails:subnetId=subnet-07b9de429469afceb

VPC dashboard Services Search [Option+S] N. Virginia v vocabs/user3607549=pratibhadixit549@gmail.com @ 7812-8496-4726 ▾

VPC > Subnets > subnet-07b9de429469afceb

subnet-07b9de429469afceb / Public Subnet Actions

Details

Subnet ID [] subnet-07b9de429469afceb	Subnet ARN [] arn:aws:ec2:us-east-1:781284964726:subnet/subnet-07b9de429469afceb	State Available	IPv4 CIDR [] 10.0.1.0/24
Available IPv4 addresses [] 251	IPv6 CIDR -	IPv6 CIDR association ID -	Availability Zone [] us-east-1e
Availability Zone ID [] use1-az3	Network border group [] us-east-1	VPC vpc-04ffeee2303d2f4f1 Project 1	Route table -
Network ACL -	Default subnet No	Auto-assign public IPv4 address Yes	Auto-assign IPv6 address No
Auto-assign customer-owned IPv4 address No	Customer-owned IPv4 pool -	Outpost ID -	IPv4 CIDR reservations -
IPv6 CIDR reservations -	IPv6-only No	Hostname type IP name	Resource name DNS A record Disabled
Resource name DNS AAAA record Disabled	DNS64 Disabled	Owner 781284964726	

Flow logs Route table Network ACL CIDR reservations Sharing Tags

Flow logs

Actions Create flow log

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Step number	C
Step name	Creation of private subnet
Instructions	<p>1) Navigate to VPC->Subnets</p> <p>2) Click on "Create Subnet"</p> <p>3) Enter the following fields</p> <p>Name tag : Private Subnet</p> <p>VPC : Select the Project 1 VPC</p> <p>IPv4 CIDR block : 10.0.2.0/24</p> <p>The other options can be ignored</p> <p>4) Click on Create</p>
Expected screenshots	1) Subnet Creation screen

<Insert Screenshot c(1) here>

The screenshot shows the AWS VPC Subnets creation screen. A single subnet named "Private Subnet" is listed. The subnet has the following details:

- Subnet ID: subnet-0f7bdb118bf34002f
- State: Available
- VPC: vpc-04ffeee2303d2f4f1 | Project 1
- IPv4 CIDR: 10.0.2.0/24

The "Details" tab is selected, showing the configuration for this subnet.

Launch AWS Academy Learn | SubnetDetails | VPC Console

us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#SubnetDetails:subnetId=subnet-0f7bdb118bf34002f

VPC > Subnets > subnet-0f7bdb118bf34002f

subnet-0f7bdb118bf34002f / Private Subnet

Actions

Details			
Subnet ID	Subnet ARN	State	IPv4 CIDR
subnet-0f7bdb118bf34002f	arn:aws:ec2:us-east-1:781284964726:subnet/subnet-0f7bdb118bf34002f	Available	10.0.2.0/24
Available IPv4 addresses	IPv6 CIDR association ID	IPv6 CIDR	Availability Zone
251	-	-	us-east-1e
Availability Zone ID	VPC	Route table	Route table
use1-az3	vpc-04ffeee2303d2f4f1 Project 1	-	-
Network ACL	VPC	Auto-assign IPv6 address	Auto-assign IPv6 address
-	vpc-04ffeee2303d2f4f1 Project 1	No	No
Auto-assign customer-owned IPv4 address	Customer-owned IPv4 pool	Outpost ID	IPv4 CIDR reservations
No	-	-	-
IPv6 CIDR reservations	IPv6-only	Hostname type	Resource name DNS A record
-	No	IP name	Disabled
Resource name DNS AAAA record	DNS64	Owner	Owner
Disabled	Disabled	781284964726	781284964726

Flow logs | Route table | Network ACL | CIDR reservations | Sharing | Tags

Flow logs

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Launch AWS Academy Learn | subnets | VPC Console

us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#subnets:

VPC dashboard

Subnets (1/8) Info

Last updated 1 minute ago

Create subnet

Name	Subnet ID	State	VPC	IPv4 CIDR
-	subnet-0bb5403b9ebad799f	Available	vpc-0197c35aaadcfc5e5d	172.31.0.0/20
Public Subnet	subnet-07b9de429469afceb	Available	vpc-04ffeee2303d2f4f1 Project 1	10.0.1.0/24
Private Subnet	subnet-0f7bdb118bf34002f	Available	vpc-04ffeee2303d2f4f1 Project 1	10.0.2.0/24

subnet-0f7bdb118bf34002f / Private Subnet

Details

Details			
Subnet ID	Subnet ARN	State	IPv4 CIDR
subnet-0f7bdb118bf34002f	arn:aws:ec2:us-east-1:781284964726:subnet/subnet-0f7bdb118bf34002f	Available	10.0.2.0/24
Available IPv4 addresses	IPv6 CIDR association ID	IPv6 CIDR	Availability Zone
251	-	-	us-east-1e
Availability Zone ID	VPC	Route table	Route table
use1-az3	vpc-04ffeee2303d2f4f1 Project 1	-	-
Network ACL	VPC	Auto-assign IPv6 address	Auto-assign IPv6 address
-	vpc-04ffeee2303d2f4f1 Project 1	No	No
Auto-assign customer-owned IPv4 address	Customer-owned IPv4 pool	Outpost ID	IPv4 CIDR reservations
No	-	-	-

Details

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Step 2 : Internet Gateway and VPC

Step number	a
Step name	Creation and Configuration of Internet Gateway
Instructions	<ol style="list-style-type: none">1) Navigate to VPCs->Internet Gateway2) Click on "Create Internet Gateway"3) Enter the name tag "Project 1 Internet Gateway" and click on "Create Internet Gateway"4) After the gateway is created, select it and click on Actions->Attach to VPC5) Select the Project 1 VPC and click on "Attach Internet Gateway"
Expected screenshots	<ol style="list-style-type: none">1) Creation of Internet Gateway

<Insert Screenshot a(1) here >

Internet Gateway Creation before VPC attached Screenshot:

The screenshot shows the AWS VPC dashboard. In the top right, a message says: "The following internet gateway was created: igw-01376d6db5e11c4e6 - Project 1 Internet Gateway. You can now attach to a VPC to enable the VPC to communicate with the internet." Below this, the "Actions" button has a tooltip "Attach to a VPC". The main content area displays the details of the newly created Internet Gateway, including its ID (igw-01376d6db5e11c4e6), state (Detached), VPC ID (-), and owner (781284964726). A "Tags" section shows a single tag: Name = Project 1 Internet Gateway.

Internet Gateway Creation Screenshot after VPC attached:

Launch AWS Academy Learn... InternetGateway | VPC Console

us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#InternetGateway:id=igw-01376d6db5e11c4e6

VPC Services Search [Option+S] N. Virginia vocabs/user3607549=pratibhadixit549@gmail.com @ 7812-8496-4726

VPC dashboard

EC2 Global View Filter by VPC

Virtual private cloud

- Your VPCs
- Subnets
- Route tables
- Internet gateways**
- Egress-only Internet gateways
- Carrier gateways
- DHCP option sets
- Elastic IPs
- Managed prefix lists
- Endpoints
- Endpoint services
- NAT gateways
- Peering connections

Security

- Network ACLs
- Security groups

DNS firewall

CloudShell Feedback

Internet gateway igw-01376d6db5e11c4e6 successfully attached to vpc-04ffeee2303d2f4f1 Notifications 0 0 2 0 0 0

VPC > Internet gateways > igw-01376d6db5e11c4e6

igw-01376d6db5e11c4e6 / Project 1 Internet Gateway

Actions

Details Info

Internet gateway ID igw-01376d6db5e11c4e6	State Attached	VPC ID vpc-04ffeee2303d2f4f1 Project 1 VPC	Owner 781284964726
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Tags

Search tags	
Key	Value
Name	Project 1 Internet Gateway

Manage tags

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Launch AWS Academy Learn... igws | VPC Console

us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#igws:

VPC Services Search [Option+S] N. Virginia vocabs/user3607549=pratibhadixit549@gmail.com @ 7812-8496-4726

VPC dashboard

EC2 Global View Filter by VPC

Virtual private cloud

Internet gateways

Name	Internet gateway ID	State	VPC ID	Owner
-	igw-073b5f4af5febf984	Attached	vpc-0197c35aadfc5e5d	781284964726
<input checked="" type="checkbox"/> Project 1 Internet Gateway	igw-01376d6db5e11c4e6	Attached	vpc-04ffeee2303d2f4f1 Project 1 VPC	781284964726

Internet gateways (1/2) Actions Create internet gateway

igw-01376d6db5e11c4e6 / Project 1 Internet Gateway

Details Tags

Internet gateway ID igw-01376d6db5e11c4e6	State Attached	VPC ID vpc-04ffeee2303d2f4f1 Project 1 VPC	Owner 781284964726
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Step number	b
Step name	Creation of public route table
Instructions	<p>1) Navigate to VPC -> Route Tables and click on Create Route table</p> <p>2) Enter the name tag "Public Route Table", select the Project 1 VPC from the dropdown and click on Create</p> <p>3) Once the route table is created, select it and select the Routes tab below the list of route tables</p> <p>4) Click in Edit Routes and add the following route (Don't edit the existing one)</p> <ul style="list-style-type: none"> - Destination : 0.0.0.0/0 - Target : Select Internet Gateway and the select the Project 1 Internet Gateway <p>Click on Save Routes</p> <p>5) Select the Subnet Associations tab and click on Edit Subnet Associations</p> <p>6) Select the Public Subnet from the list and click on Save</p>
Expected screenshots	<p>1) Route list of the route table</p> <p>2) Subnet Associations of the route table</p>

<Insert Screenshot b(1) here>

Screenshot before editing Routes:

The screenshot shows the AWS VPC Route Table Details page. At the top, there is a success message: "Route table rtb-0b019aaedda7f0506 | Public Route Table was created successfully." Below this, the route table ID is displayed as "rtb-0b019aaedda7f0506". The main section contains details such as Route table ID, Main status (No), Owner ID (781284964726), and VPC (vpc-04ffeee2303d2f4f1 | Project 1). The "Routes" tab is selected, showing one route entry: Destination 10.0.0.0/16, Target local, Status Active, and Propagated No. The bottom of the page includes standard AWS navigation links like CloudShell and Feedback.

Screenshot after editing Routes:

The screenshot shows the same AWS VPC Route Table Details page after editing. A success message at the top states "Updated routes for rtb-0b019aaedda7f0506 / Public Route Table successfully". The route table ID remains "rtb-0b019aaedda7f0506". The "Routes" tab now shows two entries: Destination 0.0.0.0/0, Target igw-01376d6db5e11c4e6, Status Active, and Propagated No; and Destination 10.0.0.0/16, Target local, Status Active, and Propagated No. The rest of the page structure, including the sidebar and footer, remains identical to the first screenshot.

<Insert Screenshot b(2) here>

Screenshot before editing Subnet :

The screenshot shows the AWS VPC Route Table Details page for route table ID `rtb-0b019aaedda7f0506`. The main details section shows the route table ID, which is `rtb-0b019aaedda7f0506`, and it is set as the Main route table. The owner ID is listed as `vpc-04fffee2303d2f4f1 | Project 1 VPC`. Below this, there are tabs for Routes, Subnet associations, Edge associations, Route propagation, and Tags. The Subnet associations tab is selected, showing a sub-section titled "Explicit subnet associations (0)". A search bar labeled "Find subnet association" is present. Below the search bar, it says "No subnet associations" and "You do not have any subnet associations." At the bottom of the page, there is a "Edit subnet associations" button.

Screenshot after editing Subnet :

The screenshot shows the AWS VPC Route Table Details page for route table ID rtb-0b019aaedda7f0506. A green success message at the top states: "You have successfully updated subnet associations for rtb-0b019aaedda7f0506 / Public Route Table." The main content area displays the "rtb-0b019aaedda7f0506 / Public Route Table" details. Under the "Subnet associations" tab, it shows one explicit association: "Public Subnet" (subnet-07b9de429469afceb) with IPv4 CIDR 10.0.1.0/24. Below this, under "Subnets without explicit associations", there is one private subnet (subnet-0f7bdb118bf34002f) with IPv4 CIDR 10.0.2.0/24.

Step number c

Step name Creation of NAT gateway

Instructions	<ol style="list-style-type: none"> 1) Navigate to VPC using the Services button at the top of the screen 2) Select NAT Gateway at the left side of the screen 3) Click on Create NAT Gateway <ul style="list-style-type: none"> - Deploy it in the public subnet - Connectivity type : Public - Allocate an elastic IP by clicking on “Allocate Elastic IP” 4) Click on “Create NAT Gateway” to create the gateway
Expected screenshots	<ol style="list-style-type: none"> 1) NAT gateway creation details 2) Gateway after creation

<Insert Screenshot c(1) here>

Launch AWS Academy Learn | CreateNatGateway | VPC Con... +

us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#CreateNatGateway:

Elastic IP address 52.4.175.245 (eipalloc-0af5fd9c3f4af2864) allocated.

VPC > NAT gateways > Create NAT gateway

Create NAT gateway Info

A highly available, managed Network Address Translation (NAT) service that instances in private subnets can use to connect to services in other VPCs, on-premises networks, or the internet.

NAT gateway settings

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

The name can be up to 256 characters long.

Subnet
Select a subnet in which to create the NAT gateway.

Connectivity type
Select a connectivity type for the NAT gateway.
 Public
 Private

Elastic IP allocation ID Info
Assign an Elastic IP address to the NAT gateway.

► Additional settings Info

Tags
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

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Launch AWS Academy Learn | CreateNatGateway | VPC Con +

us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#CreateNatGateway:

Elastic IP address 52.4.175.245 (eipalloc-0af5fd9c3f4af2864) allocated.

Create a tag with a key of "Name" and a value that you specify.

Project 1 NAT Gateway

The name can be up to 256 characters long.

Subnet
Select a subnet in which to create the NAT gateway.
 subnet-07b9de429469afceb (Public Subnet)

Connectivity type
Select a connectivity type for the NAT gateway.
 Public
 Private

Elastic IP allocation ID [Info](#)
Assign an Elastic IP address to the NAT gateway.
 eipalloc-0af5fd9c3f4af2864 [Allocate Elastic IP](#)

Additional settings [Info](#)

Tags
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	Value - optional
<input type="text" value="Name"/> Name	<input type="text" value="Project 1 NAT Gateway"/> Project 1 NAT Gateway

[Add new tag](#)
You can add 49 more tags.

[Cancel](#) [Create NAT gateway](#)

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<Insert Screenshot c(2) here>

Launch AWS Academy Learn | NatGatewayDetails | VPC Con +

us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#NatGatewayDetails:natGatewayId=nat-054dddab632f8c4b1

NAT gateway nat-054dddab632f8c4b1 | Project 1 NAT Gateway was created successfully.

VPC > NAT gateways > nat-054dddab632f8c4b1

nat-054dddab632f8c4b1 / Project 1 NAT Gateway

[Actions](#)

Details

NAT gateway ID nat-054dddab632f8c4b1	Connectivity type Public	State Pending	State message Info -
NAT gateway ARN arn:aws:ec2:us-east-1:781284964726:natgateway/nat-054dddab632f8c4b1	Primary public IPv4 address -	Primary private IPv4 address -	Primary network interface ID -
VPC vpc-04ffeee2303d2f4f1 / Project 1 VPC	Subnet subnet-07b9de429469afceb / Public Subnet	Created Sunday 10 November 2024 at 22:51:45 GMT+5:30	Deleted -

[Secondary IPv4 addresses](#) [Monitoring](#) [Tags](#)

Secondary IPv4 addresses

Private IPv4 address	Network interface ID	Status	Failure message
Secondary IPv4 addresses are not available for this nat gateway.			

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The screenshot shows the AWS VPC console with the 'NAT gateways' page. A single NAT gateway is listed:

Name	NAT gateway ID	Connectivity...	State	Primary public I...
Project 1 NAT Gateway	nat-054dddab632f8c4b1	Public	Pending	-

nat-054dddab632f8c4b1 / Project 1 NAT Gateway

Details

Attribute	Value
NAT gateway ID	nat-054dddab632f8c4b1
Connectivity type	Public
State	Pending
Primary public IPv4 address	-
Primary private IPv4 address	10.0.1.126
Primary network interface ID	eni-09ca208759294b1ca
Subnet	subnet-07b9de429469afceb / Public Subnet
Created	Sunday 10 November 2024 at 22:51:45 GMT+5:30

Step d
number

Step name Creation of private route tables

- Instruction
- 1) Navigate to VPC -> Route Tables and click on Create Route table
 - 2) Enter the name tag "Private Route Table", select the Project 1 VPC from the dropdown and click on Create
 - 3) Once the route table is created, select it and select the Routes tab below the list of route tables
 - 4) Click in Edit Routes and add the following route (Don't edit the existing one)
 - Destination : 0.0.0.0/0
 - Target: Select NAT Gateway and select the NAT Gateway created in the previous step
 Click on Save Routes
 - 5) Select the Subnet Associations tab and click on Edit Subnet Associations
 - 6) Select the private Subnet from the list and click on Save

Expected screenshot

- 1) Route list of the route table
- 2) Subnet association of the route table

<Insert Screenshot for d(1) here >

Screenshot before editing Routes:

The screenshot shows the AWS VPC Route Table Details page. A success message at the top states: "Route table rtb-062bae1fdd1fdb77 | Private Route Table was created successfully." Below this, the route table details are displayed, including its ID (rtb-062bae1fdd1fdb77), association with the "Main" VPC (vpc-04fffee2303d2f4f1 | Project 1 VPC), and no explicit subnet associations or edge associations.

Route table ID	Main	Explicit subnet associations	Edge associations
rtb-062bae1fdd1fdb77	No	-	-

The "Routes" tab is selected, showing one route entry:

Destination	Target	Status	Propagated
10.0.0.0/16	local	Active	No

Screenshot after editing Routes:

The screenshot shows the AWS VPC console with the URL us-east-1.console.aws.amazon.com/vpcconsole/home?region=us-east-1#RouteTableDetails:RouteTableId=rtb-062bae1fdd1fdb77. A green success message at the top states: "Updated routes for rtb-062bae1fdd1fdb77 / Private Route Table successfully". The main content area displays the "rtb-062bae1fdd1fdb77 / Private Route Table" details. Under the "Routes" tab, there are two routes listed:

Destination	Target	Status	Propagated
0.0.0.0/0	nat-054dddab632f8c4b1	Active	No
10.0.0.0/16	local	Active	No

<Insert Screenshot for d(2) here>

Screenshot before editing Subnet :

The screenshot shows the AWS VPC Route Table Details page for route table ID rtb-062bae1fdd1fdb77. The 'Subnet associations' tab is selected. The table shows one entry: a Private Subnet with CIDR 10.0.2.0/24 associated with the route table. The 'Explicit subnet associations' section shows a table with one row for the Private Subnet. The 'Subnets without explicit associations' section shows a table with one row for a NAT gateway.

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
Private Subnet	subnet-0f7bdb118bf34002f	10.0.2.0/24	-

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
NAT gateway	nat-0c11111111111111	10.0.3.0/24	-

Screenshot after editing Subnet :

The screenshot shows the AWS VPC Route Table Details page for route table ID rtb-062bae1fdd1fdb77. The 'Subnet associations' tab is selected. The table shows one entry: a Private Subnet with CIDR 10.0.2.0/24 associated with the route table. The 'Explicit subnet associations' section shows a table with one row for the Private Subnet. The 'Subnets without explicit associations' section shows a table with one row for a NAT gateway.

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
Private Subnet	subnet-0f7bdb118bf34002f	10.0.2.0/24	-

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
NAT gateway	nat-0c11111111111111	10.0.3.0/24	-