

AWS Task-2

Task Description:

Set up a VPC with an Internet gateway, create a public subnet with 256 IP addresses, a private subnet with 256 IP addresses, make a route table connecting the Internet gateway and the subnets, and launch a Linux EC2 instance by using the above VPC and public subnet.

Techstacks needs to be used :

- AWS VPC
- AWS EC2

Created VPC:

The screenshot displays the AWS Management Console interface for a VPC. At the top, a green notification bar states: "You successfully created vpc-02ba37f6f1125145a / MyVPC". Below this, the VPC ID is "vpc-02ba37f6f1125145a" and the name is "MyVPC". The "Details" tab is active, showing various configuration options:

- VPC ID:** vpc-02ba37f6f1125145a
- DNS resolution:** Enabled
- Main network ACL:** acl-068bfcfc4b4da208
- IPv6 CIDR (Network border group):** -
- Encryption control ID:** -
- State:** Available
- Tenancy:** default
- Default VPC:** No
- Network Address Usage metrics:** Disabled
- Encryption control mode:** -
- Block Public Access:** Off
- DHCP option set:** dhcp-0c1da3a9cd611dc47
- IPv4 CIDR:** 10.0.0.0/16
- Route 53 Resolver DNS Firewall rule groups:** -
- DNS hostnames:** Disabled
- Main route table:** rtb-0dccc5c4e00a257fb5
- IPv6 pool:** -
- Owner ID:** 250448776023

Below the details, the "Resource map" tab is selected, showing a visual overview of the VPC resources:

- VPC:** Your AWS virtual network. MyVPC
- Subnets (0):** Subnets within this VPC.
- Route tables (1):** Route network traffic to resources. rtb-0dccc5c4e00a257fb5
- Network Connections (0):** Connections to other networks.

Create a public subnet:(CIDR:10.0.0.0/24)

Subnets > subnet-024bc99e413dae483

subnet-024bc99e413dae483 / Public Subnet

Details

Subnet ID subnet-024bc99e413dae483	Subnet ARN arn:aws:ec2:us-east-1:260448776023:subnet/subnet-024bc99e413dae483	State Available	Block Public Access Off
IPv4 CIDR 10.0.0.0/24	Available IPv4 addresses 251	IPv6 CIDR -	IPv6 CIDR association ID -
Availability Zone us-east-1f	Network border group us-east-1	VPC vpc-02ba3776f1125145a MyVPC	Route table -
Network ACL -	Default subnet No	Auto-assign public IPv4 address No	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 260448776023	

Flow logs

Search

Name	Flow log ID	Traffic type	Destination type	Destination name	IAM role
No flow logs found					

Creating a Private Subnet:(CIDR: 10.0.1.0/24)

subnet-00626845e39ab03ad

subnet-00626845e39ab03ad / Private Subnet

Details

Subnet ID subnet-00626845e39ab03ad	Subnet ARN arn:aws:ec2:us-east-1:260448776023:subnet/subnet-00626845e39ab03ad	State Available	Block Public Access Off
IPv4 CIDR 10.0.1.0/24	Available IPv4 addresses 251	IPv6 CIDR -	IPv6 CIDR association ID -
Availability Zone us-east-1f	Network border group us-east-1	VPC vpc-02ba3776f1125145a MyVPC	Route table -
Network ACL -	Default subnet No	Auto-assign public IPv4 address No	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 260448776023	

Flow logs

Search

Name	Flow log ID	Traffic type	Destination type	Destination name	IAM role
No flow logs found					

Creating internet gateway and VPC attached to it:

Internet gateways > igw-0d58696cd99df8fed

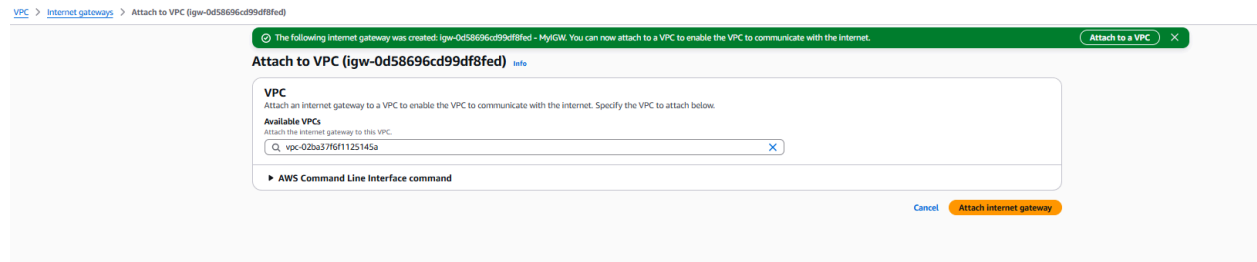
igw-0d58696cd99df8fed / MyIGW

Details

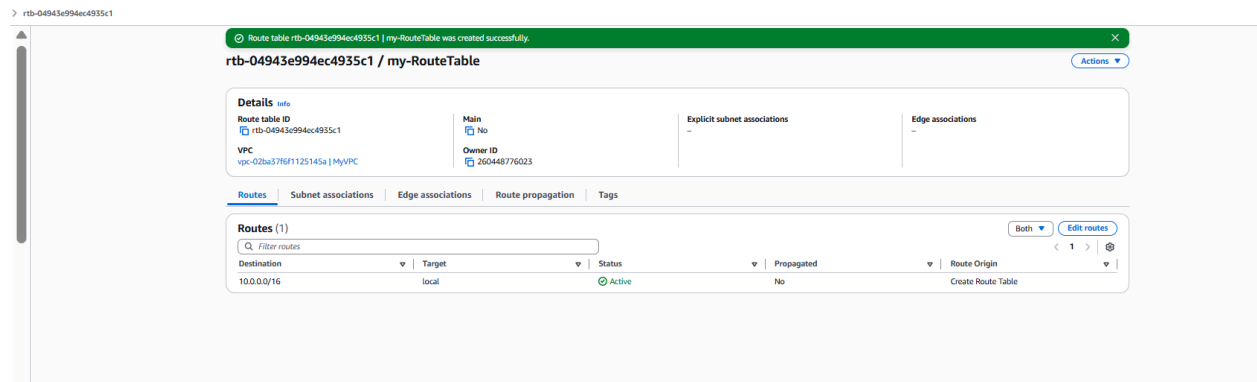
Internet gateway ID igw-0d58696cd99df8fed	State Attached	VPC ID vpc-02ba3776f1125145a MyVPC	Owner 260448776023
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Tags (1)

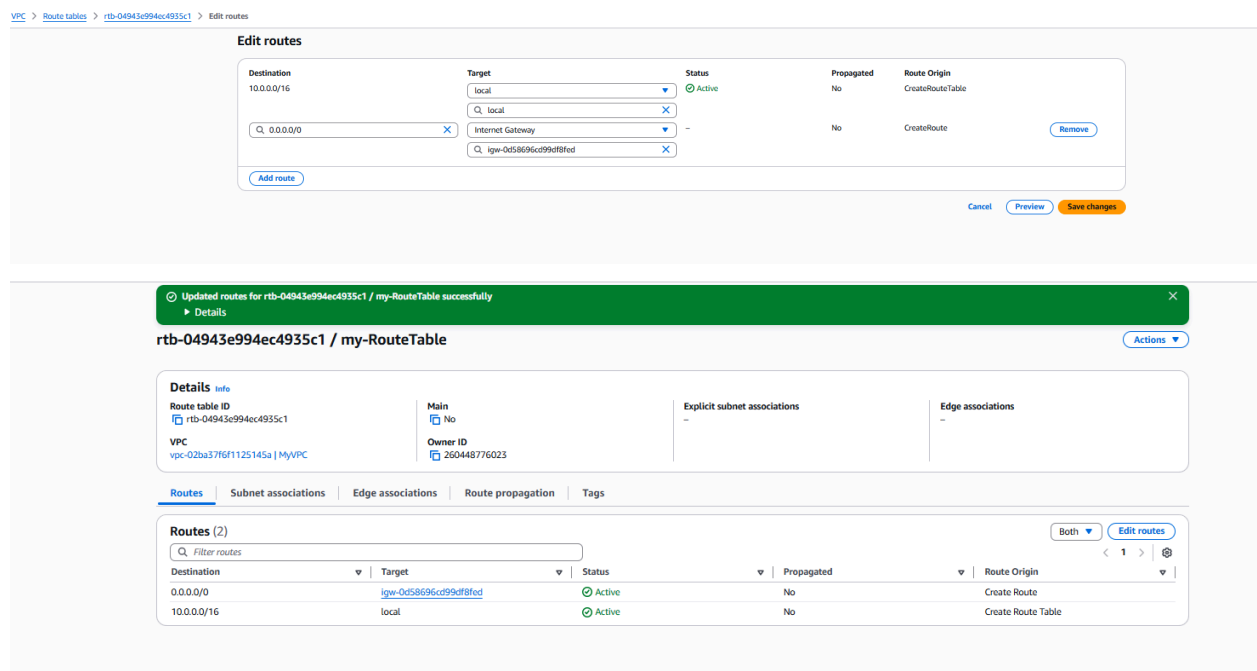
Key	Value
Name	MyIGW



Creating Route table(my-RouteTable) and attached VPC to it:



Add a Route to the Internet Gateway:



Associate Public & Private Subnets with Route Table(my-RouteTable):

VPC > Route tables > rtb-04945c994c4935c1 > Edit subnet associations

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (2/2)

Name	Subnet ID	IPv4 CIDR	IPv6 CIDR
Public Subnet	subnet-024bc99e413dae483	10.0.0/24	-
Private Subnet	subnet-00626845c39ab03ad	10.0.1.0/24	-

Selected subnets

subnet-024bc99e413dae483 / Public Subnet subnet-00626845c39ab03ad / Private Subnet

Cancel Save associations

launching a Linux EC2 instance by using the above VPC and public subnet.

Instances > Launch an instance

Amazon Linux 2023 AMI 2023.10.20260202.2 x86_64 HVM kernel-6.1

Architecture: 64-bit (x86) Boot mode: uefi-preferred AMI ID: ami-0c1fe732b5494dc14 Publish Date: 2026-02-03 Username: ec2-user Verified provider

Instance type

t3.micro Family: t3 2 vCPU 1 GiB Memory Current generation: true On-Demand Linux base pricing: 0.0104 USD per Hour Free tier eligible All generations Compare instance types

Additional costs apply for AMIs with pre-installed software

Key pair (login)

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: firstkey Create new key pair

Network settings

VPC - required: vpc-02ba37f6f1125145a (MyVPC) Subnet: subnet-024bc99e413dae483 (Public Subnet) Auto-assign public IP: Enable Firewall (security groups): Enable

Summary

Number of instances: 1

Software Image (AMI): Amazon Linux 2023 AMI 2023.10...read more

Virtual server type (instance type): t3.micro

Firewall (security group): New security group

Storage (volumes): 1 volume(s) - 8 GiB

Cancel Launch instance Preview code

Instances > i-06ff8a74dbd0b70dd

Instance summary for i-06ff8a74dbd0b70dd (VPC-Test)

Updated less than a minute ago

Instance ID: i-06ff8a74dbd0b70dd

IPV6 address: -

Hostname type: IP name: ip-10-0-0-57.ec2.internal

Answer private resource DNS name: -

Auto-assigned IP address: 44.201.68.153 [Public IP]

IAM role: -

IMDSv2: Required

Operator: -

Public IPv4 address: 44.201.68.153 | open address

Instance state: Running

Private IP DNS name (IPv4 only): ip-10-0-0-57.ec2.internal

Instance type: t3.micro

VPC ID: vpc-02ba37f6f1125145a (MyVPC)

Subnet ID: subnet-024bc99e413dae483 (Public Subnet)

Instance ARN: arn:aws:ec2:us-east-1:260448776023:instance/i-06ff8a74dbd0b70dd

Private IPv4 addresses: 10.0.0.57

Public DNS: -

Elastic IP addresses: -

AWS Compute Optimizer finding: Opt-in to AWS Compute Optimizer for recommendations. | Learn more

Auto Scaling Group name: -

Managed: false

Details

AMI ID: ami-0c1fe732b5494dc14

AMI name: al2023-ami-2023.10.20260202.2-kernel-6.1-x86_64

Stop protection: Disabled

Monitoring: disabled

Allowed image: -

Launch time: Tue Feb 17 2026 20:14:23 GMT+0530 (India Standard Time) (less than a minute)

Platform details: Linux/UNIX

Termination protection: Disabled

AMI location: amazon/al2023-ami-2023.10.20260202.2-kernel-6.1-x86_64

Verifying the Ec2 to connectivity in local:

```
ec2-user@ip-10-0-0-57:~  
Microsoft Windows [Version 10.0.26200.7705]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\Users\hp>ssh -i "C:\Users\hp\Downloads\firstkey.pem" ec2-user@44.201.68.153  
The authenticity of host '44.201.68.153 (44.201.68.153)' can't be established.  
ED25519 key fingerprint is SHA256:3KqItbxWtaS5Xl1XPwqCSiaMZzbizzwHvF1FkjgNk.  
This key is not known by any other names.  
Are you sure you want to continue connecting (yes/no/[fingerprint])? y  
Please type 'yes', 'no' or the fingerprint: yes  
Warning: Permanently added '44.201.68.153' (ED25519) to the list of known hosts.  
  
#_  
~\_#####_ Amazon Linux 2023  
~~\_#####\  
~~\_###|  
~~\_#/____ https://aws.amazon.com/linux/amazon-linux-2023  
~~V~' '->  
NNN /  
~~.-.- /  
_-/_ /  
_/m/'
```