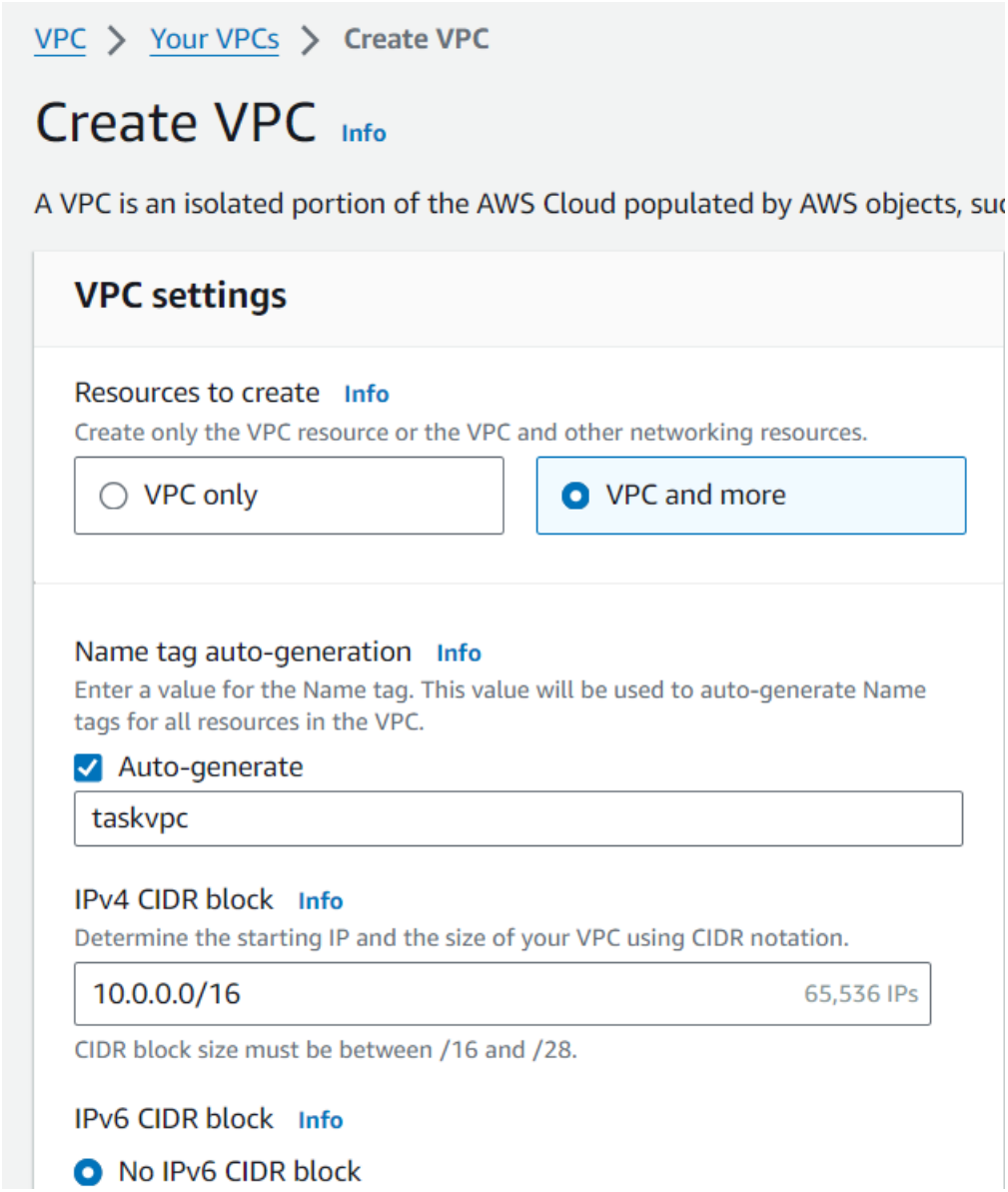
Task 14: **set up a VPC with an Internet gateway, create a public subnet, a private subnet make a route table connecting the Internet gateway and the subnets, and launch a Linux EC2 instance by using the above vpc and public subnet.**

1. **set up a VPC with an Internet gateway, create a public subnet, a private subnet make a route table connecting the Internet gateway and the subnets:**



Number of Availability Zones (AZs) Info

Choose the number of AZs in which to provision subnets. We recommend at least two AZs for high availability.

1	**2**	3

▶ **Customize AZs**

Number of public subnets Info

The number of public subnets to add to your VPC. Use public subnets for web applications that need to be publicly accessible over the internet.

0	**2**

Number of private subnets Info

The number of private subnets to add to your VPC. Use private subnets to secure backend resources that don't need public access.

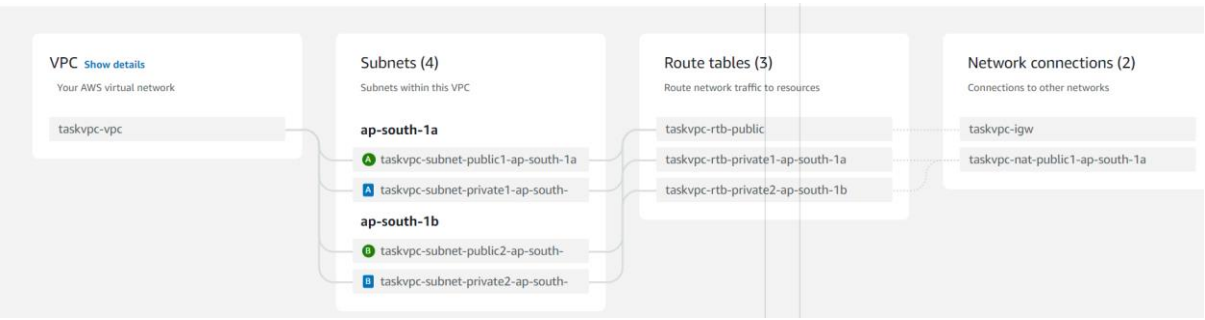
0	**2**	4

▶ **Customize subnets CIDR blocks**

NAT gateways ($) Info

Choose the number of Availability Zones (AZs) in which to create NAT gateways. Note that there is a charge for each NAT gateway

None	**In 1 AZ**	1 per AZ



Success

Details

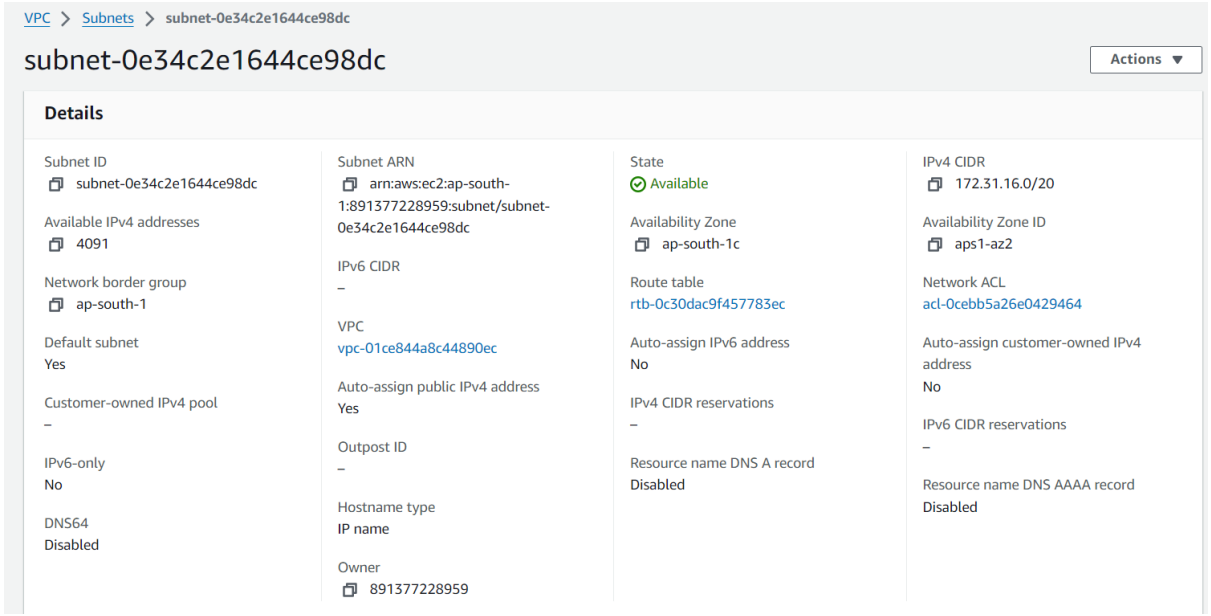
- Create VPC: vpc-0f6a1d3a4bd7a8792
- Enable DNS hostnames
- Enable DNS resolution
- Verifying VPC creation: vpc-0f6a1d3a4bd7a8792
- Create subnet: subnet-0fc87e11005d9b56a
- Create subnet: subnet-0eadaa3f9fd061e9b
- Create subnet: subnet-0025173625319ccd7
- Create subnet: subnet-023e7955303605140
- Create internet gateway: igw-0b7c816ad83c72a30
- Attach internet gateway to the VPC
- Create route table: rtb-0cac3ef9d6acaaccc
- Create route
- Associate route table
- Associate route table
- Allocate elastic IP: eipalloc-0c47a69bbffbede33
- Create NAT gateway: nat-0c3a6ee8e02c46972
- Wait for NAT Gateways to activate
- Create route table: rtb-0113efe55a3126127
- Create route
- Associate route table
- Create route table: rtb-0e34462dc8083026b
- Create route
- Associate route table

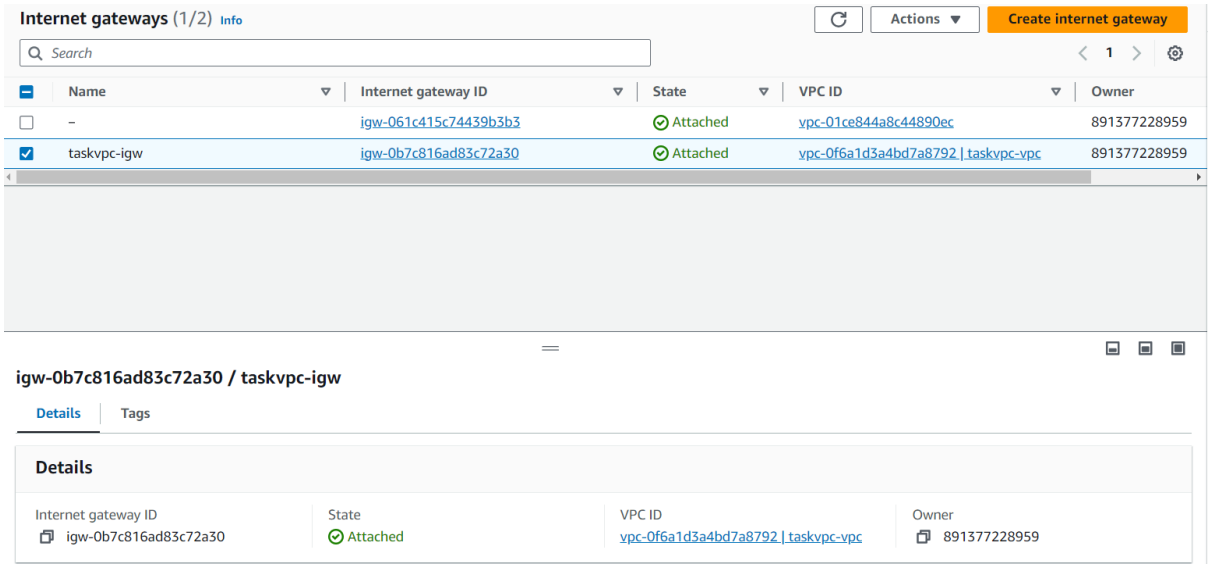
vpc-0f6a1d3a4bd7a8792 / taskvpc-vpc

Actions

Details Info

VPC ID vpc-0f6a1d3a4bd7a8792	State Available	DNS hostnames Enabled	DNS resolution Enabled
Tenancy Default	DHCP option set dopt-09685a3108f9f5517	Main route table rtb-0e2a584cdc984d57b	Main network ACL acl-0e03fb31f8af18fec
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 –	Owner ID 891377228959	


VPC > Subnets > subnet-0e34c2e1644ce98dc
subnet-0e34c2e1644ce98dc
Actions
Details
Subnet ID
subnet-0e34c2e1644ce98dc
Available IPv4 addresses
4091
Network border group
ap-south-1
Default subnet
Yes
Customer-owned IPv4 pool
–
IPv6-only
No
DNS64
Disabled
Subnet ARN
arn:aws:ec2:ap-south-1:891377228959:subnet/subnet-0e34c2e1644ce98dc
IPv6 CIDR
–
VPC
vpc-01ce844a8c44890ec
Auto-assign public IPv4 address
Yes
Outpost ID
–
Hostname type
IP name
Owner
891377228959
State
Available
Availability Zone
ap-south-1c
Route table
rtb-0c30dac9f457783ec
Auto-assign IPv6 address
No
IPv4 CIDR reservations
–
Resource name DNS A record
Disabled
IPv4 CIDR
172.31.16.0/20
Availability Zone ID
aps1-az2
Network ACL
acl-0cebb5a26e0429464
Auto-assign customer-owned IPv4 address
No
IPv6 CIDR reservations
–
Resource name DNS AAAA record
Disabled


Internet gateways (1/2) Info
Actions
Create internet gateway
Search
1
Name
Internet gateway ID
State
VPC ID
Owner
–
igw-061c415c74439b3b3
Attached
vpc-01ce844a8c44890ec
891377228959
taskvpc-igw
igw-0b7c816ad83c72a30
Attached
vpc-0f6a1d3a4bd7a8792 | taskvpc-vpc
891377228959

igw-0b7c816ad83c72a30 / taskvpc-igw
Details
Tags
Details
Internet gateway ID
igw-0b7c816ad83c72a30
State
Attached
VPC ID
vpc-0f6a1d3a4bd7a8792 | taskvpc-vpc
Owner
891377228959

VPC > Route tables > Create route table

Create route table Info

A route table specifies how packets are forwarded between the subnets within your VPC, the internet, and your VPN connection.

Route table settings

Name - *optional*

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

vpc-routetable

VPC

The VPC to use for this route table.

vpc-0f6a1d3a4bd7a8792 (taskvpc-vpc)

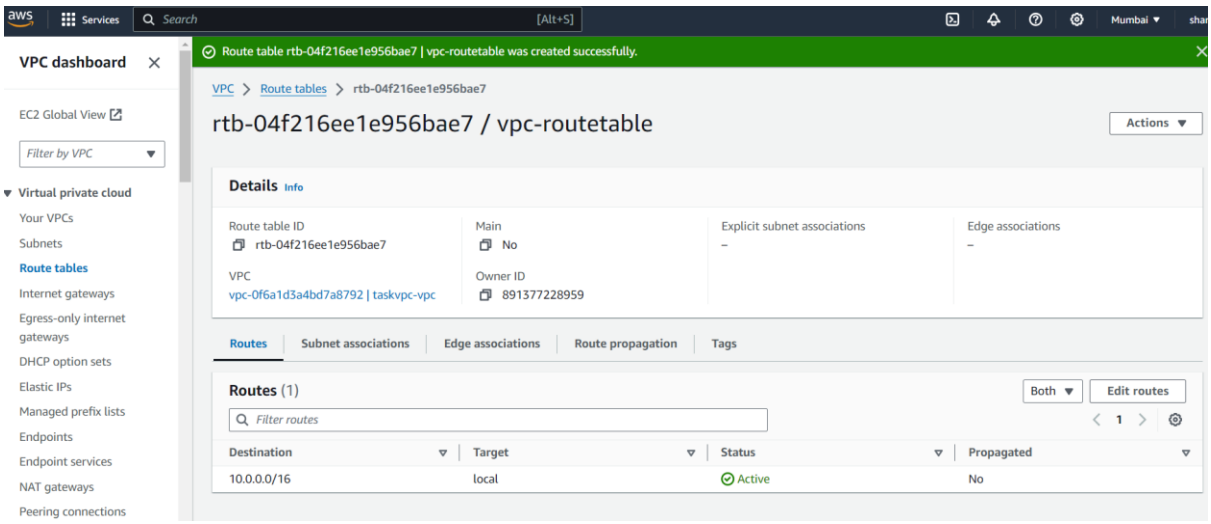
Tags

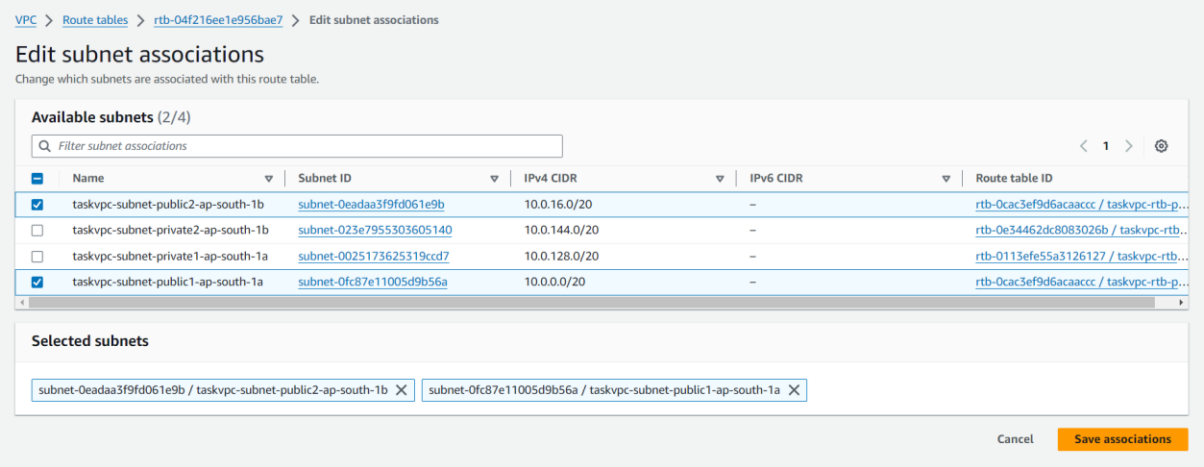
A tag is a label that you assign to an AWS resource. Each tag consists of a key and an optional value. You can use tags to search and filter your resources or track your AWS costs.

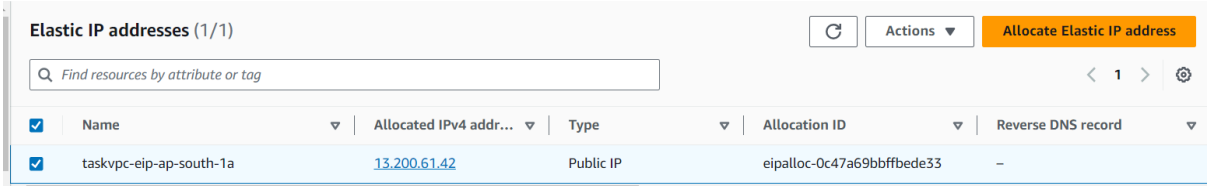
Key	Value - *optional*	
Name	vpc-routetable	Remove

Add new tag

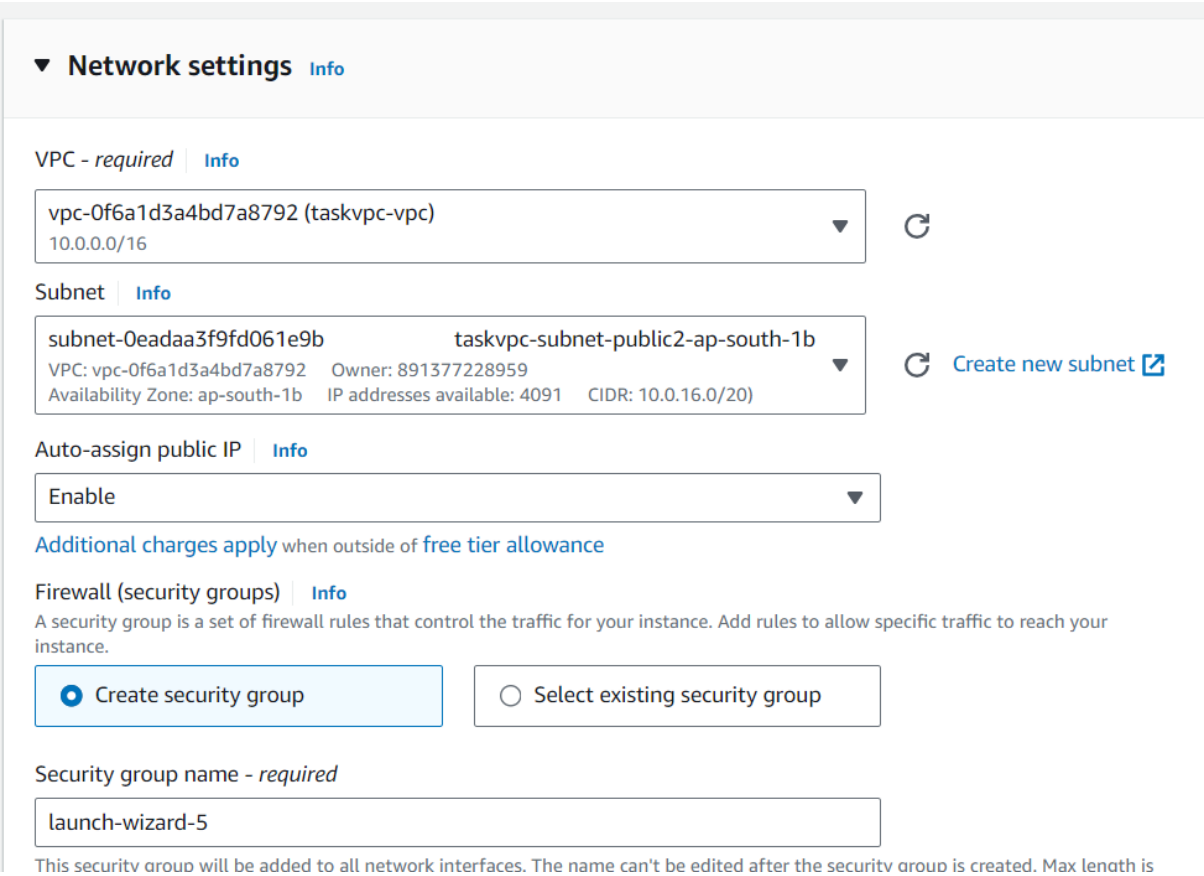
You can add 49 more tags.







2. launch a Linux EC2 instance by using the above vpc and public subnet:-



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

Security group name - *required*

mysecuritygroup

This security group will be added to all network interfaces. The name can't be edited after the security group is created. Max length is 255 characters. Valid characters: a-z, A-Z, 0-9, spaces, and ._-:/()#,@[]+=&;{}!$*

Description - *required* | Info

mysecuritygroupformyec2

Inbound Security Group Rules

▼ Security group rule 1 (TCP, 22, 0.0.0.0/0) — Remove

Type	Protocol	Port range
ssh	TCP	22

Instances (1/5) Info — Connect | Instance state | Actions | Launch instances

Find Instance by attribute or tag (case-sensitive) — All states — 1

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public I
my vpc ec2	i-0b8bd118fb2378eb8	Running	t2.micro	2/2 checks passec	View alarms	ap-south-1b	ec2-13-:
vpcinstance	i-05b65992df9cd987c	Terminated	t2.micro	–	View alarms	ap-south-1b	–
vpcinstance	i-091b54fccdf61a9fc	Running	t2.micro	2/2 checks passec	View alarms	ap-south-1b	–
windowsws	i-073dc0eb17845873a	Stopped	t2.micro	–	View alarms	ap-south-1a	–
linux-webserver	i-0c82bc665a0c55e44	Stopped	t2.micro	–	View alarms	ap-south-1a	–

i-0b8bd118fb2378eb8 (my vpc ec2)

Details | Status and alarms | Monitoring | Security | Networking | Storage | Tags

▼ Instance summary Info

Instance ID
i-0b8bd118fb2378eb8 (my vpc ec2)

IPv6 address
–

Public IPv4 address
13.235.78.160 | open address

Instance state
Running

Private IPv4 addresses
10.0.24.241

Public IPv4 DNS
ec2-13-235-78-160.ap-south-1.compute.amazonaws.com | open address