

TASK – 8 VPC

Creation of VPC...

The screenshot shows the AWS VPC Console interface. The left sidebar has sections for VPC dashboard, Virtual private cloud (with Your VPCs selected), and Security. The main area displays a table titled 'Your VPCs (2) Info' with columns: Name, VPC ID, State, Block Public..., IPv4 CIDR, and IPv6 CIDR. Two VPCs are listed: 'myvpc' (VPC ID: [vpc-07b4b08ff5d3d597](#)) and another unnamed VPC (VPC ID: [vpc-00aa32b792ae81dee](#)). Both are in the 'Available' state with 'Off' for Block Public... and IPv4 CIDR ranges 172.31.0.0/16 and 10.0.0.0/16 respectively.

Creation of subnets...

The screenshot shows the AWS VPC Console interface. The left sidebar has sections for VPC dashboard, Virtual private cloud (with Subnets selected), and Security. The main area displays a table titled 'Subnets (5) Info' with columns: Name, Subnet ID, State, VPC, Block Public..., and IPv4 CIDR. Five subnets are listed: 'public_subnet' (Subnet ID: [subnet-06bab185e6112be247](#)), 'private_subnet' (Subnet ID: [subnet-00b1afcf1e5e29345](#)), and three unnamed subnets (Subnet IDs: [subnet-0cb4fe2f0c9bf2759](#), [subnet-09cd94db8c577451](#), [subnet-03776fe5f5968fb00](#)). All are in the 'Available' state with 'Off' for Block Public... and IPv4 CIDR ranges 10.0.1.0/24, 172.31.32.0, 10.0.2.0/24, 172.31.0.0/16, and 172.31.16.0/16 respectively.

Creation of route tables...

The screenshot shows the AWS VPC Route Tables page. The left sidebar includes sections for VPC dashboard, Virtual private cloud (Your VPCs, Subnets, Route tables), Security (Network ACLs), and CloudShell/Feedback. The main content area displays a table titled "Route tables (4) Info" with columns for Name, Route table ID, Explicit subnet associ..., Edge associations, Main, and VPC. The table lists four entries: a blank entry, rtb-0b82a447c9d0a0356, rtb-0ccffc4a458b96cf0, public_rt (rtb-031d7a741bf2cfad4), and private_rt (rtb-0714686a3b41602a0). A "Create route table" button is located at the top right of the table.

Creation of Internet gateway and attached to VPC...

The screenshot shows the AWS VPC Internet Gateways page. The left sidebar includes sections for VPC dashboard, Virtual private cloud (Your VPCs, Subnets, Route tables, Internet gateways), Security (Network ACLs), and CloudShell/Feedback. The main content area displays a table titled "Internet gateways (1/2) Info" with columns for Name, Internet gateway ID, State, VPC ID, and Owner. It shows two rows: a blank entry and "my_internet_gateway" (igw-082c516c605197f6e), which is attached to vpc-07b4b08ff5d3d597. A success message at the top indicates the gateway was successfully attached.

Creation of NAT gateway...

The screenshot shows the AWS VPC NAT Gateways page. The left sidebar includes sections for VPC dashboard, Virtual private cloud (Your VPCs, Subnets, Route tables, Internet gateways, NAT gateways), Security (Network ACLs), and CloudShell/Feedback. The main content area displays a table titled "NAT gateways (1) Info" with columns for Name, NAT gateway ID, Connectivity..., State, State message, Primary public IP..., and Primary private IP. It shows one row: "myNat" (nat-034dad095ce6ea120), which is Public and Pending. A "Create NAT gateway" button is located at the top right of the table.

Creation of public and private security group...

The screenshot shows the AWS VPC Security Groups page. A green success message at the top states: "Security group (sg-009237ba92174f022 | private_securitygrp) was created successfully". The main table lists 65 security groups, including the newly created one. The table columns are: Name, Security group ID, Security group name, VPC ID, and Description. The newly created security group is named "private_securitygrp" and has a VPC ID of "vpc-00aa32b792ae81dee".

Attachment of public route table with internet gateway...

The screenshot shows the AWS Route Tables page. It displays the "Edit routes" section for a specific route table. A route is being added to target an Internet Gateway. The "Destination" field contains "10.0.0.0/16". The "Target" dropdown shows "local" and "Internet Gateway". The "Status" column indicates both are "Active". The "Route Origin" column shows "CreateRouteTable" and "CreateRoute" respectively. The "Propagated" column shows "No" for both. A "Remove" button is visible next to the Internet Gateway entry. At the bottom, there are "Add route", "Cancel", "Preview", and "Save changes" buttons.

Attachment of private route table with NAT gateway...

The screenshot shows the 'Edit routes' page for a specific route table. A route entry is being configured:

Destination	Target	Status	Propagated	Route Origin
10.0.0.0/16	local	Active	No	CreateRouteTable
Q_ 0.0.0.0/0	NAT Gateway	Active	No	CreateRoute
	Q_ nat-034dad095ce6ea120			

Buttons at the bottom include 'Add route', 'Cancel', 'Preview', and 'Save changes'.

Creation of public and private instance...

The screenshot shows the 'Instances' page in the EC2 service. Two instances are listed:

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
private_instance	i-0488b193937affbbf	Running	t2.micro	Initializing	View alarms +	ap-southeast-1a	-
public_instance	i-0bf85b9ea89a3abff	Running	t2.micro	Initializing	View alarms +	ap-southeast-1a	-

A sidebar on the left lists navigation options like Dashboard, EC2 Global View, Events, Instances, Instance Types, Launch Templates, Spot Requests, Savings Plans, Reserved Instances, Dedicated Hosts, Capacity Reservations, Images, AMIs, and Elastic Block Store.

Checking whether the internet is passing from public to private instance...

```
aws Search [Alt+S] Account ID: 3938-2745-7998 Rubika VM
EC2 IAM VPC

Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

[ec2-user@ip-10-0-1-11 ~]$ touch 1807.pem.pem
[ec2-user@ip-10-0-1-11 ~]$ vi 1807.pem.pem
[ec2-user@ip-10-0-1-11 ~]$ chmod 400 1807.pem.pem
[ec2-user@ip-10-0-1-11 ~]$ ssh -i 1807.pem.pem ec2-user@10.0.2.224
The authenticity of host '10.0.2.224 (10.0.2.224)' can't be established.
ED25519 key fingerprint is SHA256:5zcpWHiIk7pc+VLUiC558mcWhpyeAOsy65yJtA7y4.
This key is not known by any other names
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.0.2.224' (ED25519) to the list of known hosts.

Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023
```

i-0bf85b9ea89a3abbf (public_instance)
PublicIPs: 18.143.150.33 PrivateIPs: 10.0.1.11
CloudShell Feedback © 2025, Amazon Web Services, Inc. or its affiliates. Privacy Terms Cookie preferences

```
aws Search [Alt+S] Account ID: 3938-2745-7998 Rubika VM
EC2 IAM VPC

Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.0.2.224' (ED25519) to the list of known hosts.

Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

[ec2-user@ip-10-0-2-224 ~]$ ping google.com
PING google.com (74.125.68.138) 56(84) bytes of data.
64 bytes from sc-in-f138.1e100.net (74.125.68.138): icmp_seq=1 ttl=103 time=2.14 ms
64 bytes from sc-in-f138.1e100.net (74.125.68.138): icmp_seq=2 ttl=103 time=1.71 ms
64 bytes from sc-in-f138.1e100.net (74.125.68.138): icmp_seq=3 ttl=103 time=1.72 ms
64 bytes from sc-in-f138.1e100.net (74.125.68.138): icmp_seq=4 ttl=103 time=1.84 ms
64 bytes from sc-in-f138.1e100.net (74.125.68.138): icmp_seq=5 ttl=103 time=1.69 ms
64 bytes from sc-in-f138.1e100.net (74.125.68.138): icmp_seq=6 ttl=103 time=1.71 ms
64 bytes from sc-in-f138.1e100.net (74.125.68.138): icmp_seq=7 ttl=103 time=1.95 ms
64 bytes from sc-in-f138.1e100.net (74.125.68.138): icmp_seq=8 ttl=103 time=1.71 ms
64 bytes from sc-in-f138.1e100.net (74.125.68.138): icmp_seq=9 ttl=103 time=1.74 ms
64 bytes from sc-in-f138.1e100.net (74.125.68.138): icmp_seq=10 ttl=103 time=1.71 ms
...
[1]+  Stopped                  ping google.com
[ec2-user@ip-10-0-2-224 ~]$
```

i-0bf85b9ea89a3abbf (public_instance)
PublicIPs: 18.143.150.33 PrivateIPs: 10.0.1.11
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