AWS Hands-On Assignment 04

(On Console and CLI)

QUESTION NO: 01

Console

1. Create Launch Template on Console:

- Navigate to the EC2 dashboard on the AWS Management Console.
- Create a launch template named "WebServerTemplate."
- Specify configurations such as instance type, key pair, and any additional settings.

a)log in to aws console ==> click on ec2 ==> launch template ==> create launch tempalate

b)Now fill the details such as:-

a1) Launch template name - required

WebServerTemplate

a2) Amazon Machine Image (AMI)

Amazon Linux 2023 AMI

a3) Instance type

t2.micro

a4) Key pair name

sim.pem.aws

a5) Network Settings :-Subnet Info

subnet-0040a79fdd7cc9181

VPC: vpc-0d7f078357cd79872

a6) Firewall (security groups) Info

Select existing security group

a7) click on create launch tempalate.

---

2. Launch Instance Using Launch Template:

- Use the launch template "WebServerTemplate" to launch an EC2 instance.

- Verify the successful launch of the instance.

a) In the EC2 Dashboard, locate the "Instances" section in the left sidebar.

b) click on 'instances'.

c) Click on the drop down button next to "Launch Instances" button and select ' launch instance from tempalete'.

e) Select the "WebServerTemplate" from the list of available launch templates.

f) On the "Configure instance details" page, review and configure additional settings such as the number of instances, network settings, IAM role, etc. Adjust these settings as needed for your specific requirements.

g) Proceed to the "Add storage" page and configure the storage settings for your instance.

h) On the "Configure Security Group" page, select the existing or create a security group to control the traffic to your instance.

i)Choose an existing key pair or create a new one. This key pair is required for securely accessing your EC2 instance.

j)Review and then Click the "Launch" button.

k)Navigate back to the "Instances" page in the EC2 Dashboard.

l)You should see the new instance being launched. note: click on refresh button.

The OUTPUT:-

Instances (1) Info

Connect

Instance state

i-0f20c7021e9ecb5fa

Running

---

3. Modify Launch Template:

- Modify the launch template to change the instance type or any other parameter.

EC2 dashboard ==> Launch Templates ==> a page will pop up ==> click on Actions ==> click modify tempalate ==> do the needful edits ==> click on create launch template ==> go to template page and check the edits.

4. Documentation:

- Provide a step-by-step guide with screenshots for creating, launching, and modifying instances using the launch template.

- Include outputs or confirmation messages from the console.

SOLUTIONS:-

CLI

1. Create Launch Template using AWS CLI:

- Use the AWS CLI to create a launch template named "WebServerTemplate" with specified configurations.

- Confirm the creation of the launch template.

root@DESKTOP-NJSOG33:Downloads# aws ec2 create-launch-template --launch-template-name NewWebServerTemplate --launch-template-data '{"NetworkInterfaces":[{"AssociatePublicIpAddress":true,"DeviceIndex":0,"SubnetId":"subnet-0b62104472025c636"}],"ImageId":"ami-0d3f444bc76de0a79","InstanceType":"t2.micro","TagSpecifications":[{"ResourceType":"instance","Tags":[{"Key":"purpose","Value":"webserver"}]}]}'

{

"LaunchTemplate": {

"LaunchTemplateId": "lt-0b6bcb1259a052807",

"LaunchTemplateName": "NewWebServerTemplate",

"CreateTime": "2024-01-19T06:12:07.000Z",

"CreatedBy": "arn:aws:iam::043241213129:root",

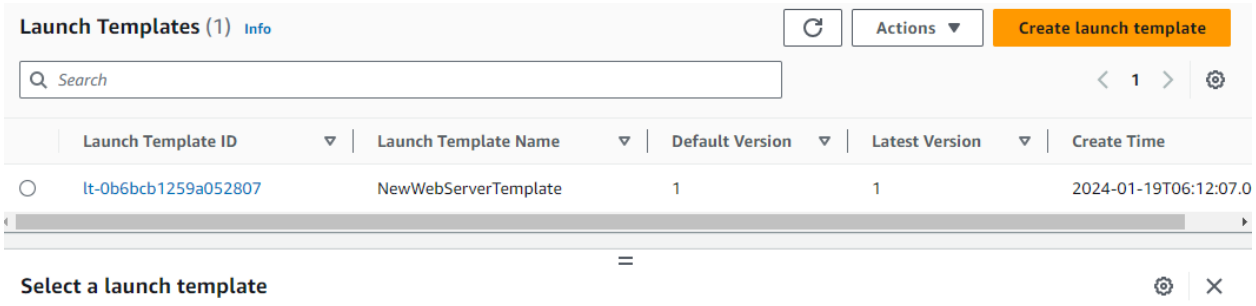
"DefaultVersionNumber": 1,

"LatestVersionNumber": 1

}

}

root@DESKTOP-NJSOG33:Downloads#



2. Launch Instance Using Launch Template:

- Use the AWS CLI to launch an EC2 instance using the "WebServerTemplate."

- Confirm the successful launch of the instance.

root@DESKTOP-NJSOG33:Downloads# aws ec2 run-instances --launch-template LaunchTemplateName=NewWebServerTemplate


```
{
  "Groups": [],
  "Instances": [
    {
      "AmiLaunchIndex": 0,
      "ImageId": "ami-0d3f444bc76de0a79",
      "InstanceId": "i-007e1b430c3331243",
      "InstanceType": "t2.micro",
      "LaunchTime": "2024-01-19T06:13:06.000Z",
      "Monitoring": {
        "State": "disabled"
      },
      "Placement": {
        "AvailabilityZone": "ap-south-1a",
```

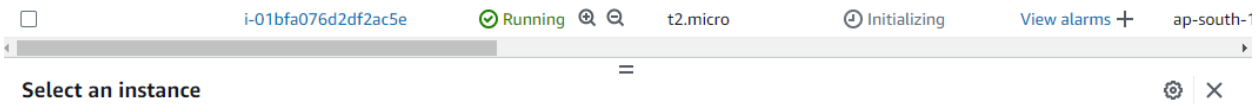
```
    "GroupName": "",
    "Tenancy": "default"
},
"PrivateDnsName": "ip-172-31-46-74.ap-south-1.compute.internal",
"PrivateIpAddress": "172.31.46.74",
"ProductCodes": [],
"PublicDnsName": "",
"State": {
    "Code": 0,
    "Name": "pending"
},
"StateTransitionReason": "",
"SubnetId": "subnet-0b62104472025c636",
"VpcId": "vpc-0d7f078357cd79872",
"Architecture": "x86_64",
"BlockDeviceMappings": [],
"ClientToken": "17f42599-038a-42a8-926e-1f122e0f94b9",
"EbsOptimized": false,
"EnaSupport": true,
"Hypervisor": "xen",
"NetworkInterfaces": [
    {
        "Attachment": {
            "AttachTime": "2024-01-19T06:13:06.000Z",
            "AttachmentId": "eni-attach-0e56fed8ced011fee",
```

```
    "DeleteOnTermination": true,
    "DeviceIndex": 0,
    "Status": "attaching",
    "NetworkCardIndex": 0
},
"Description": "",
"Groups": [
    {
        "GroupName": "default",
        "GroupId": "sg-0d901e970546b4e0f"
    }
],
"Ipv6Addresses": [],
"MacAddress": "02:c1:39:a9:85:33",
"NetworkInterfaceId": "eni-043bac2ec642b62e3",
"OwnerId": "043241213129",
"PrivateDnsName": "ip-172-31-46-74.ap-south-1.compute.internal",
"PrivateIpAddress": "172.31.46.74",
"PrivateIpAddresses": [
    {
        "Primary": true,
        "PrivateDnsName": "ip-172-31-46-74.ap-south-1.compute.internal",
        "PrivateIpAddress": "172.31.46.74"
    }
],
```

```
        "SourceDestCheck": true,
        "Status": "in-use",
        "SubnetId": "subnet-0b62104472025c636",
        "VpcId": "vpc-0d7f078357cd79872",
        "InterfaceType": "interface"
    }
],
"RootDeviceName": "/dev/xvda",
"RootDeviceType": "ebs",
"SecurityGroups": [
    {
        "GroupName": "default",
        "GroupId": "sg-0d901e970546b4e0f"
    }
],
"SourceDestCheck": true,
"StateReason": {
    "Code": "pending",
    "Message": "pending"
},
"Tags": [
    {
        "Key": "purpose",
        "Value": "webserver"
    },
```

```
    {
      "Key": "aws:ec2launchtemplate:version",
      "Value": "1"
    },
    {
      "Key": "aws:ec2launchtemplate:id",
      "Value": "lt-0b6bcb1259a052807"
    }
  ],
  "VirtualizationType": "hvm",
  "CpuOptions": {
    "CoreCount": 1,
    "ThreadsPerCore": 1
  },
  "CapacityReservationSpecification": {
    "CapacityReservationPreference": "open"
  },
  "MetadataOptions": {
    "State": "pending",
    "HttpTokens": "required",
    "HttpPutResponseHopLimit": 2,
    "HttpEndpoint": "enabled",
    "HttpProtocolIpv6": "disabled",
    "InstanceMetadataTags": "disabled"
  },
```

```
            "EnclaveOptions": {
                "Enabled": false
            },
            "BootMode": "uefi-preferred",
            "PrivateDnsNameOptions": {
                "HostnameType": "ip-name",
                "EnableResourceNameDnsARecord": false,
                "EnableResourceNameDnsAAAARecord": false
            }
        }
    ],
    "OwnerId": "043241213129",
    "ReservationId": "r-06fd674a723a526f2"
}
root@DESKTOP-NJSOG33:Downloads#
```

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3. Modify Launch Template using AWS CLI:

- Use the AWS CLI to modify the launch template, e.g., change the instance type.

- Use the modified template to launch another instance.

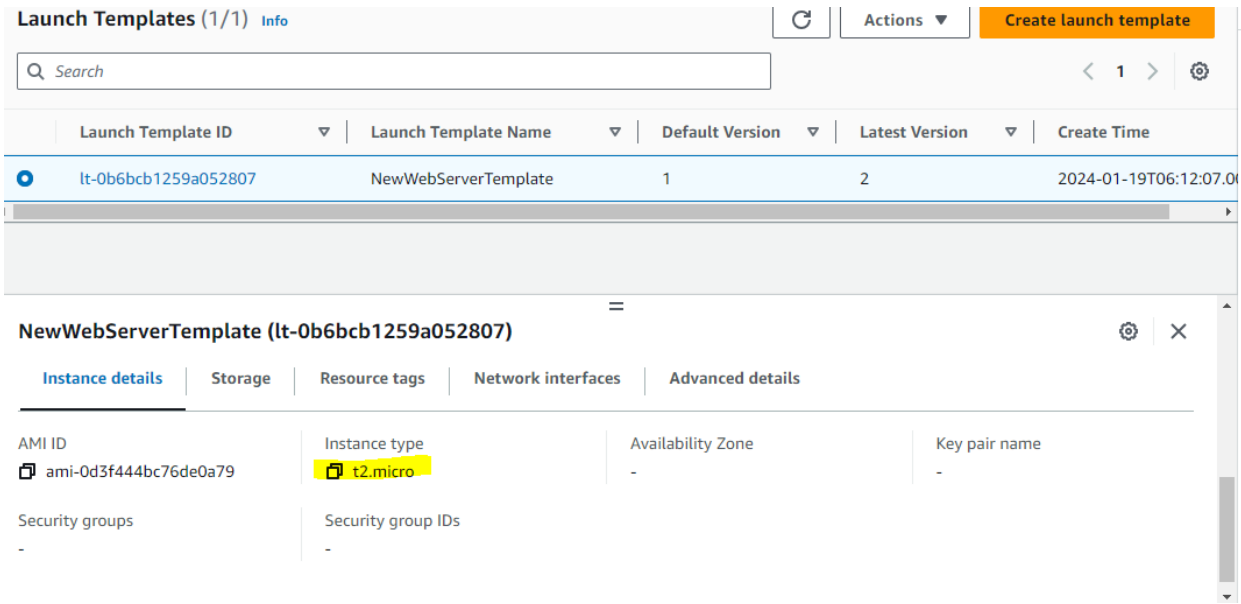
root@DESKTOP-NJSOG33:Downloads# aws ec2 create-launch-template-version --launch-template-name NewWebServerTemplate \--version-descrip

tion "local server Template" \--source-version 1 \--launch-template-data '{"InstanceType": "t2.medium"}'

```
{
    "LaunchTemplateVersion": {
        "LaunchTemplateId": "lt-0b6bcb1259a052807",
        "LaunchTemplateName": "NewWebServerTemplate",
        "VersionNumber": 2,
        "VersionDescription": "local server Template",
        "CreateTime": "2024-01-19T06:21:53.000Z",
        "CreatedBy": "arn:aws:iam::043241213129:root",
        "DefaultVersion": false,
        "LaunchTemplateData": {
            "NetworkInterfaces": [
                {
                    "AssociatePublicIpAddress": true,
                    "DeviceIndex": 0,
                    "SubnetId": "subnet-0b62104472025c636"
                }
            ],
            "ImageId": "ami-0d3f444bc76de0a79",
            "InstanceType": "t2.medium",
            "TagSpecifications": [
                {
                    "ResourceType": "instance",
                    "Tags": [
                        {
                            "Key": "purpose",
```

```
                    "Value": "webserver"
                }
            ]
        }
    ]
  }
 }
}
```


root@DESKTOP-NJSOG33:Downloads#



4. Documentation:

- Provide a document with AWS CLI commands for creating, launching, and modifying instances using the launch template.

- Include any relevant outputs or confirmation messages.

QUESTION NO: 02

Console

1. Allocate Elastic IP and Associate:

- Using the AWS Management Console, allocate an Elastic IP address.

- Associate the Elastic IP with an existing running EC2 instance.

SOLUTIONS :-

Go to aws console ==> EC2 dashboard ==> Network & Security ==> elastic IPs ==> Allocate Elastic IP address ==> Allocate

Go to allocate elastic IP page and check for the newly assigned elastic IP.

THE OUTPUT :-

Name

Private IP address

Association ID

_

13.200.117.229 Public IP eipalloc-0de9873e63d12f4c6

Current instance id 'i-0f20c7021e9ecb5fa' and public IP is '65.2.80.180'

Be on the page og elastic Ip ==> click on Actions ==> Associate elastic Ip address==> A page will pop up ==> under Instance (chhose the instace you wanna associate Elastic Ip ==> under Private IP address (alloacte from the option or give the desidred one) ==> Associate

---

2. Verify Elastic IP Functionality:

- Confirm the functionality of the Elastic IP by accessing the associated EC2 instance.

- Document any observations or considerations related to Elastic IP usage.

In the output :-

the new public IP :- 13.200.117.229.

Note:- even you stop or restart teh instance the IP will be tha same as of now.

---

3. Swap Elastic IPs:

- Allocate another Elastic IP and swap it with the original Elastic IP.

- Document the steps taken and verify the new Elastic IP functionality.

Create one more Elastic IP using the steps stated above.:

then,

Select the newly allocated Elastic IP from the list.

Click the "Actions" button ==> then choose "Associate Elastic IP address."

Select the EC2 instance you want to associate with the new Elastic IP.

Confirm the association.

For swapping:-

After allocating the new Elastic IP, we can swap it with the original Elastic IP.

now go-

In the EC2 Dashboard ==> Elastic IP (under Network & Security)

Select the original Elastic IP that you want to swap.

Click the "Actions" button, then choose "Associate Elastic IP address."

Associate it with the instance that originally had the new Elastic IP.

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4. Documentation:

- Provide a step-by-step guide, including screenshots, for allocating, associating, and swapping Elastic IPs.

- Include evidence of the successful verification of Elastic IP functionality.

CLI

1. Allocate Elastic IP and Associate using AWS CLI:

- Use the AWS CLI to allocate an Elastic IP address.

- Associate the Elastic IP with an existing running EC2 instance.

root@DESKTOP-NJSOG33:Downloads# aws ec2 allocate-address --domain vpc --output json

{

"PublicIp": "13.200.248.230",

"AllocationId": "eipalloc-016ed2a874b61059c",

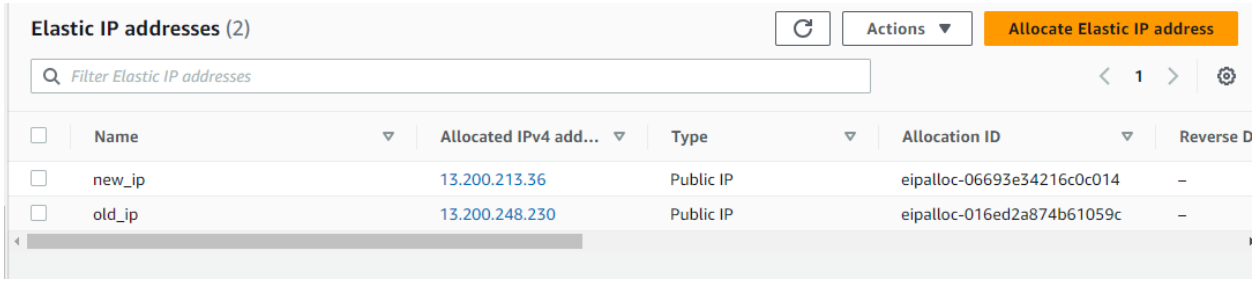
"PublicIpv4Pool": "amazon",

"NetworkBorderGroup": "ap-south-1",

"Domain": "vpc"

}

root@DESKTOP-NJSOG33:Downloads#



root@DESKTOP-NJSOG33:Downloads# aws ec2 associate-address --instance-id i-01bfa076d2df2ac5e --allocation-id eipalloc-016ed2a874b61059

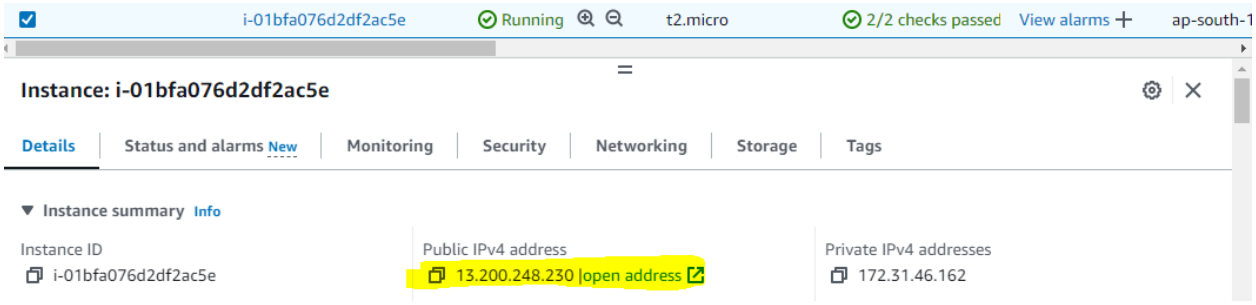
c

{

"AssociationId": "eipassoc-0a7209e9e5d997d20"

}

root@DESKTOP-NJSOG33:Downloads#



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2. Verify Elastic IP Functionality using AWS CLI:

- Use the AWS CLI to confirm the functionality of the Elastic IP by accessing the associated EC2 instance.

- Document any observations or considerations related to Elastic IP usage.

}

root@DESKTOP-NJSOG33:Downloads# aws ec2 describe-instances --instance-ids i-01bfa076d2df2ac5e --query 'Reservations[*].Instances[*].P

ublicIpAddress' --output json

```
[
    [
        "13.200.248.230"
    ]
]
```

root@DESKTOP-NJSOG33:Downloads#

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3. Swap Elastic IPs using AWS CLI:

- Use the AWS CLI to allocate another Elastic IP.

- Swap the newly allocated Elastic IP with the original one.

- Document the steps taken and verify the new Elastic IP functionality.

SOLUTION:-

Allocate another Elastic IP

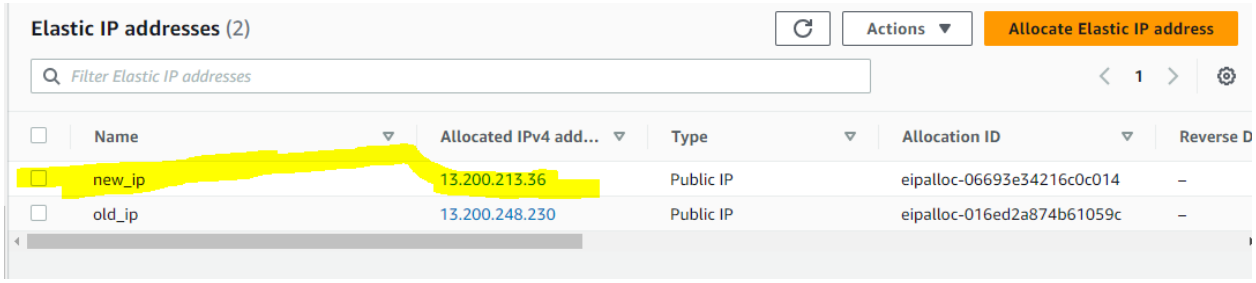
root@DESKTOP-NJSOG33:Downloads# aws ec2 allocate-address --domain vpc --output json

```
{
    "PublicIp": "13.200.213.36",
    "AllocationId": "eipalloc-06693e34216c0c014",
    "PublicIpv4Pool": "amazon",
```

"NetworkBorderGroup": "ap-south-1",

"Domain": "vpc"

}



Disassociate the original Elastic IP from the EC2 instance

root@DESKTOP-NJSOG33:Downloads# aws ec2 disassociate-address --association-id eipassoc-0a7209e9e5d997d20

root@DESKTOP-NJSOG33:Downloads#

Associate the new Elastic IP with the same EC2 instance

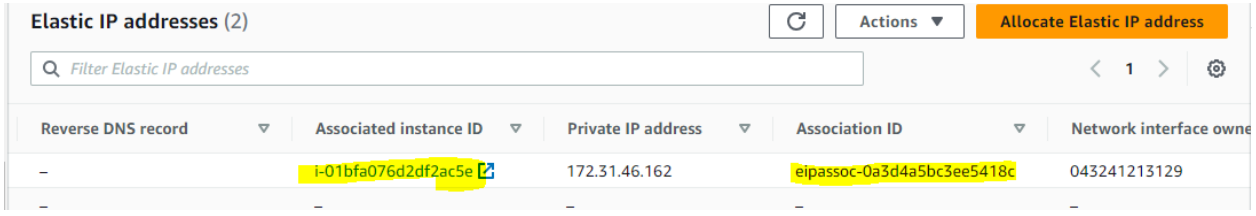
root@DESKTOP-NJSOG33:Downloads# aws ec2 associate-address --instance-id i-01bfa076d2df2ac5e --allocation-id eipalloc-06693e34216c0c014

{

"AssociationId": "eipassoc-0a3d4a5bc3ee5418c"

}

root@DESKTOP-NJSOG33:Downloads#



4. Documentation:

- Provide a detailed document with AWS CLI commands for allocating, associating, and swapping Elastic IPs.

- Include evidence of the successful verification of Elastic IP functionality.

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QUESTION NO: 03

Console

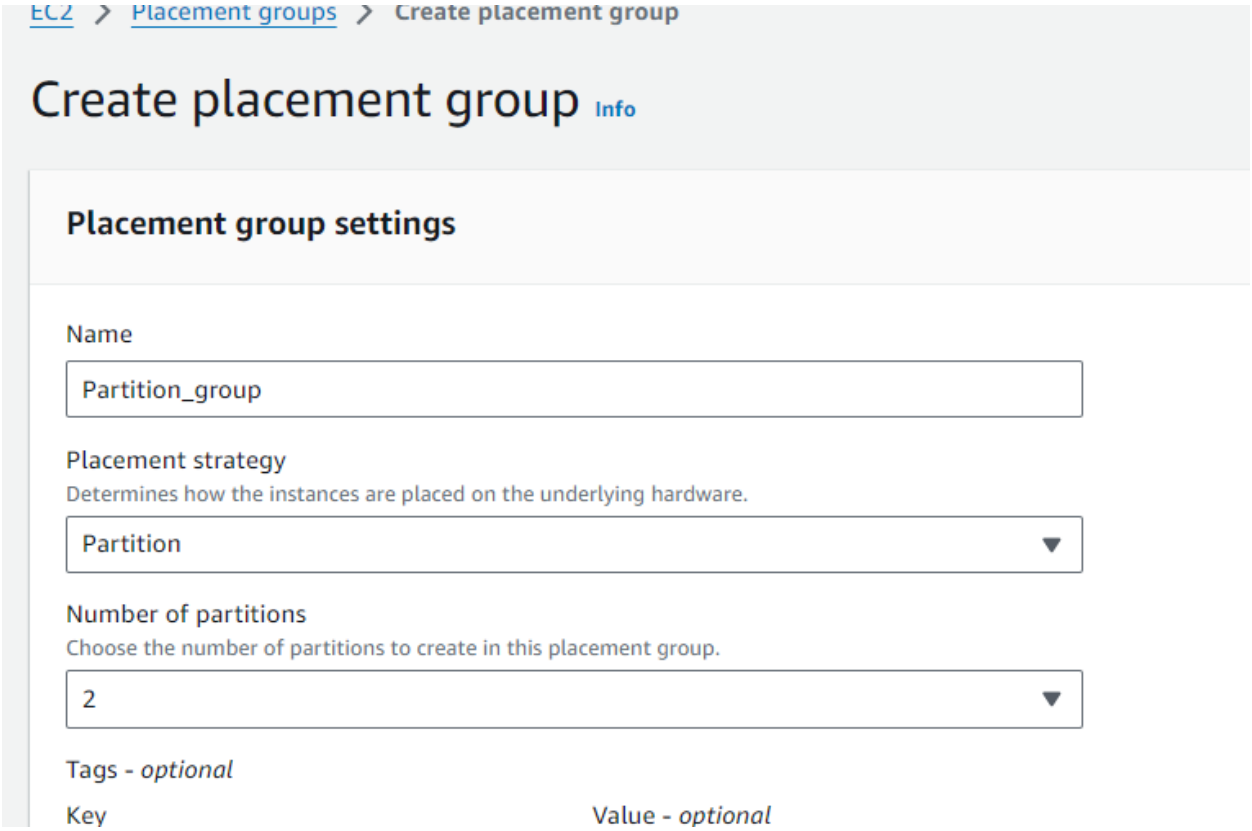
1. Create Partition Placement Group:

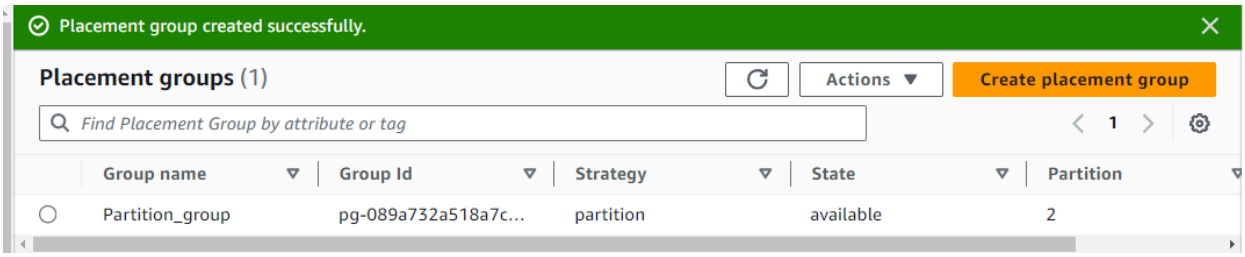
- Using the AWS Management Console, create a "Partition" placement group.
- Ensure it is associated with a specific region.

SOLUTIONS:-

In the EC2 Dashboard, click on "Placement Groups" in the left sidebar.

Click the "Create Placement Group" button





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2. Launch Instances into Partition Placement Group:

- Launch multiple EC2 instances into the created "Partition" placement group with distinct partition numbers.

- Confirm that instances are distributed across partitions.

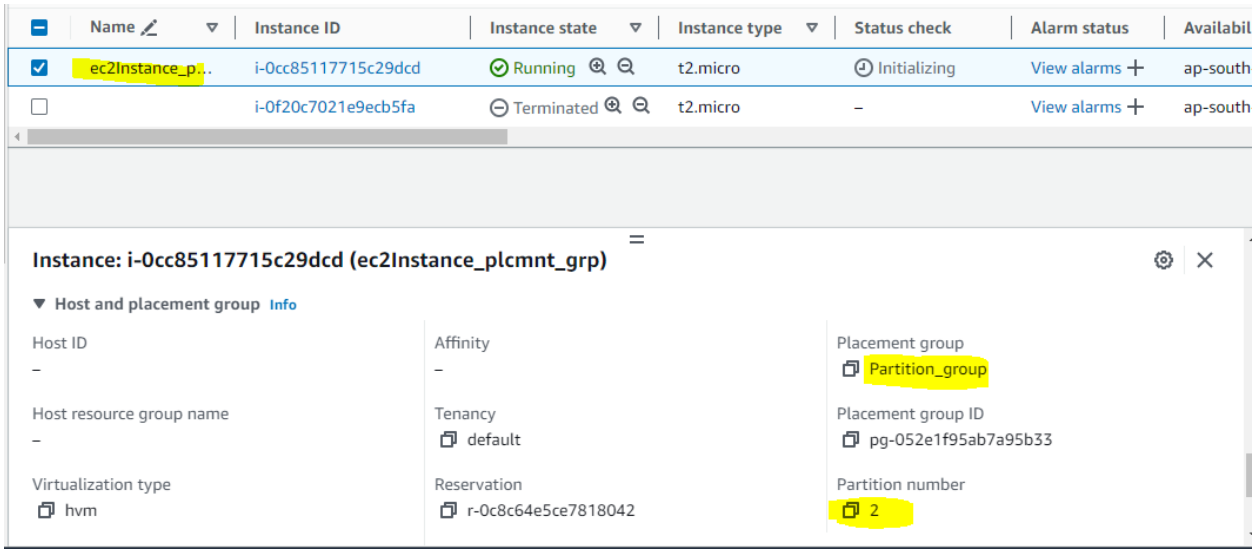
SOLUTIONS:-

EC2 Dashboard ➔ instances ➔launch instance➔ give all the requirements (instance name, amazon linux,)

Select the desired instance type and click "Next: Configure Instance Details

In the "Configure Instance Details" page:
Choose the "Partition Placement Group" that you created from the dropdown menu.

Specify a unique "Partition Number" for each instance. This number represents the partition to which the instance belongs.



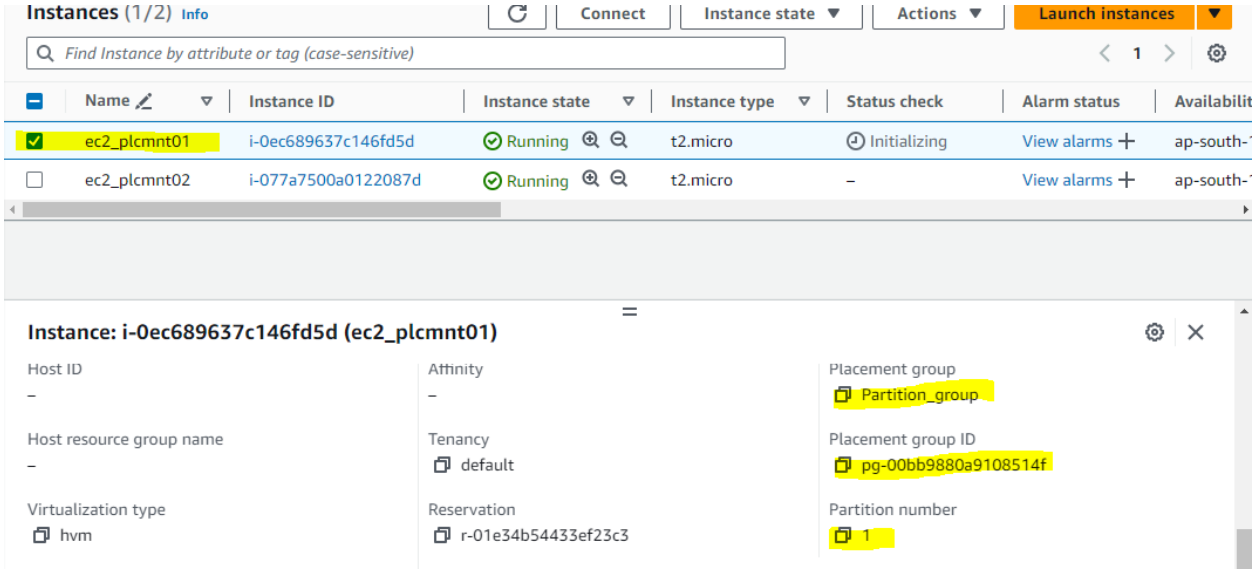
3. Test Isolation:

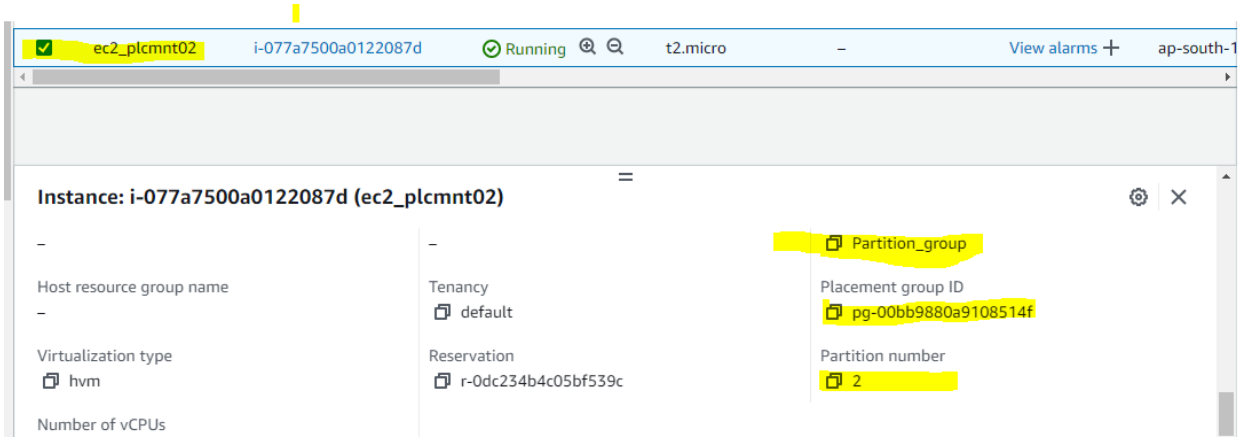
- Use the console to observe the network and resource isolation between instances in different partitions.

- Verify that instances in one partition do not share the underlying hardware with instances in other partitions.

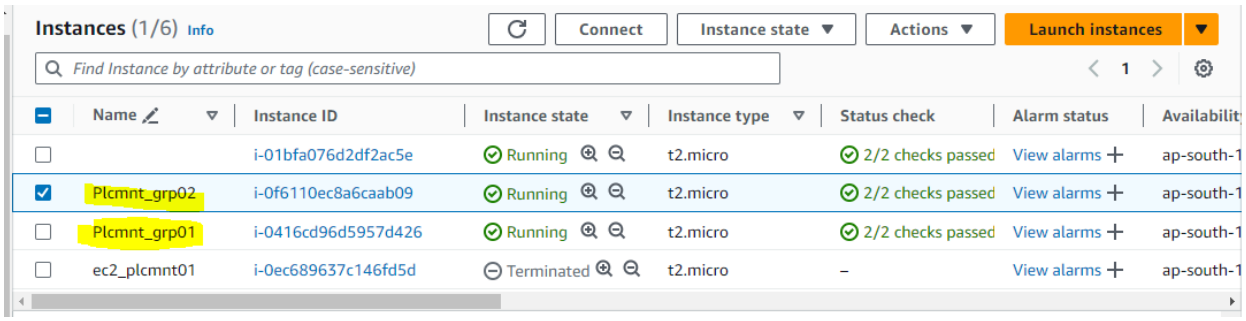
a) In the EC2 Dashboard, click on "Instances" in the left sidebar.

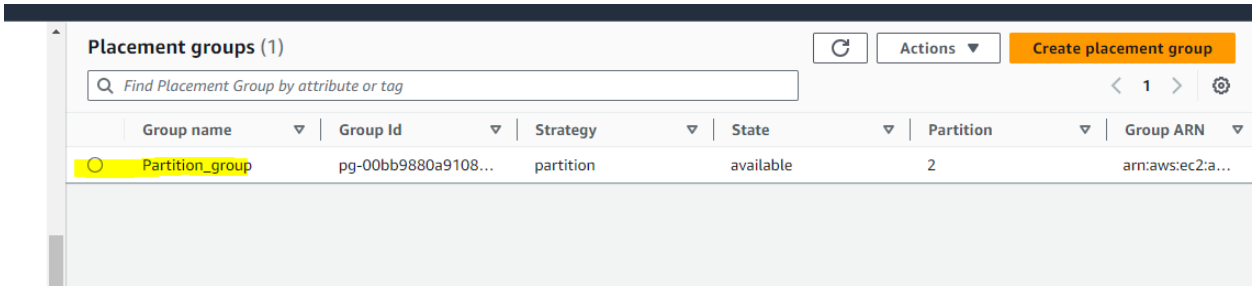
b) Identify instances that belong to different partitions based on the partition group and partition number.:-





- Verify that instances in one partition do not share the underlying hardware with instances in other partitions





4. Documentation:

- Provide a step-by-step guide + screenshots, for creating a "Partition" placement group and launching instances into it.

- Include observations related to network and resource isolation.

ON CLI:-

aws ec2 describe-instances --filters Name=placement-group-name,Values=Partition_group


```
{
  "Reservations": [
    {
      "Groups": [],
      "Instances": [
        {
          "AmiLaunchIndex": 0,
```

"ImageId": "ami-0d3f444bc76de0a79",

"InstanceId": "i-0ec689637c146fd5d",

"InstanceType": "t2.micro",

"KeyName": "sim.pem.aws",

"LaunchTime": "2024-01-19T05:30:25.000Z",

"Monitoring": {

"State": "disabled"

},

"Placement": {

"AvailabilityZone": "ap-south-1a",

"GroupName": "Partition_group",

"PartitionNumber": 1,

"Tenancy": "default"

},

"PrivateDnsName": "",

"ProductCodes": [],

"PublicDnsName": "",

"State": {

"Code": 48,

"Name": "terminated"

},

"StateTransitionReason": "User initiated (2024-01-19 06:16:32 GMT)",

"Architecture": "x86_64",

"BlockDeviceMappings": [],

"ClientToken": "b687f02f-8b5e-4b1e-a219-69c9ae0d4883",

```
"EbsOptimized": false,
"EnaSupport": true,
"Hypervisor": "xen",
"NetworkInterfaces": [],
"RootDeviceName": "/dev/xvda",
"RootDeviceType": "ebs",
"SecurityGroups": [],
"StateReason": {
   "Code": "Client.UserInitiatedShutdown",
   "Message": "Client.UserInitiatedShutdown: User initiated shutdown"
},
"Tags": [
   {
      "Key": "Name",
      "Value": "ec2_plcmnt01"
   }
],
"VirtualizationType": "hvm",
"CpuOptions": {
   "CoreCount": 1,
   "ThreadsPerCore": 1
},
"CapacityReservationSpecification": {
   "CapacityReservationPreference": "open"
},
```

```
            "HibernationOptions": {
                "Configured": false
            },
            "MetadataOptions": {
                "State": "pending",
                "HttpTokens": "required",
                "HttpPutResponseHopLimit": 2,
                "HttpEndpoint": "enabled",
                "HttpProtocolIpv6": "disabled",
                "InstanceMetadataTags": "disabled"
            },
            "EnclaveOptions": {
                "Enabled": false
            },
            "BootMode": "uefi-preferred",
            "PlatformDetails": "Linux/UNIX",
            "UsageOperation": "RunInstances",
            "UsageOperationUpdateTime": "2024-01-19T05:30:25.000Z"
        }
    ],
    "OwnerId": "043241213129",
    "ReservationId": "r-01e34b54433ef23c3"
},
{
    "Groups": [],
```

```
"Instances": [
    {
        "AmiLaunchIndex": 0,
        "ImageId": "ami-0d3f444bc76de0a79",
        "InstanceId": "i-077a7500a0122087d",
        "InstanceType": "t2.micro",
        "KeyName": "sim.pem.aws",
        "LaunchTime": "2024-01-19T05:31:16.000Z",
        "Monitoring": {
            "State": "disabled"
        },
        "Placement": {
            "AvailabilityZone": "ap-south-1a",
            "GroupName": "Partition_group",
            "PartitionNumber": 2,
            "Tenancy": "default"
        },
        "PrivateDnsName": "",
        "ProductCodes": [],
        "PublicDnsName": "",
        "State": {
            "Code": 48,
            "Name": "terminated"
        },
        "StateTransitionReason": "User initiated (2024-01-19 06:16:32 GMT)",
```

```
"Architecture": "x86_64",
"BlockDeviceMappings": [],
"ClientToken": "a2d54022-97a1-4f2e-a807-b895a3b68071",
"EbsOptimized": false,
"EnaSupport": true,
"Hypervisor": "xen",
"NetworkInterfaces": [],
"RootDeviceName": "/dev/xvda",
"RootDeviceType": "ebs",
"SecurityGroups": [],
"StateReason": {
   "Code": "Client.UserInitiatedShutdown",
   "Message": "Client.UserInitiatedShutdown: User initiated shutdown"
},
"Tags": [
   {
      "Key": "Name",
      "Value": "ec2_plcmnt02"
   }
],
"VirtualizationType": "hvm",
"CpuOptions": {
   "CoreCount": 1,
   "ThreadsPerCore": 1
},
```

```
      "CapacityReservationSpecification": {
         "CapacityReservationPreference": "open"
      },
      "HibernationOptions": {
         "Configured": false
      },
      "MetadataOptions": {
         "State": "pending",
         "HttpTokens": "required",
         "HttpPutResponseHopLimit": 2,
         "HttpEndpoint": "enabled",
         "HttpProtocolIpv6": "disabled",
         "InstanceMetadataTags": "disabled"
      },
      "EnclaveOptions": {
         "Enabled": false
      },
      "BootMode": "uefi-preferred",
      "PlatformDetails": "Linux/UNIX",
      "UsageOperation": "RunInstances",
      "UsageOperationUpdateTime": "2024-01-19T05:31:16.000Z"
   }
],
"OwnerId": "043241213129",
"ReservationId": "r-0dc234b4c05bf539c"
```

```
},
{
   "Groups": [],
   "Instances": [
      {
         "AmiLaunchIndex": 0,
         "ImageId": "ami-0d3f444bc76de0a79",
         "InstanceId": "i-0f6110ec8a6caab09",
         "InstanceType": "t2.micro",
         "KeyName": "sim.pem.aws",
         "LaunchTime": "2024-01-19T07:07:57.000Z",
         "Monitoring": {
            "State": "disabled"
         },
         "Placement": {
            "AvailabilityZone": "ap-south-1a",
            "GroupName": "Partition_group",
            "PartitionNumber": 2,
            "Tenancy": "default"
         },
         "PrivateDnsName": "ip-172-31-40-100.ap-south-1.compute.internal",
         "PrivateIpAddress": "172.31.40.100",
         "ProductCodes": [],
         "PublicDnsName": "ec2-35-154-50-2.ap-south-1.compute.amazonaws.com",
         "PublicIpAddress": "35.154.50.2",
```

```
"State": {
   "Code": 16,
   "Name": "running"
},
"StateTransitionReason": "",
"SubnetId": "subnet-0b62104472025c636",
"VpcId": "vpc-0d7f078357cd79872",
"Architecture": "x86_64",
"BlockDeviceMappings": [
   {
      "DeviceName": "/dev/xvda",
      "Ebs": {
         "AttachTime": "2024-01-19T07:07:58.000Z",
         "DeleteOnTermination": true,
         "Status": "attached",
         "VolumeId": "vol-075b6ec4872fe1699"
      }
   }
],
"ClientToken": "dabbab3d-f138-4747-94a3-8f1441cd56f4",
"EbsOptimized": false,
"EnaSupport": true,
"Hypervisor": "xen",
"NetworkInterfaces": [
   {
```

```
"Association": {
   "IpOwnerId": "amazon",
   "PublicDnsName": "ec2-35-154-50-2.ap-south-1.compute.amazonaws.com",
   "PublicIp": "35.154.50.2"
},
"Attachment": {
   "AttachTime": "2024-01-19T07:07:57.000Z",
   "AttachmentId": "eni-attach-0b496ee771deef7d1",
   "DeleteOnTermination": true,
   "DeviceIndex": 0,
   "Status": "attached",
   "NetworkCardIndex": 0
},
"Description": "",
"Groups": [
   {
      "GroupName": "launch-wizard-5",
      "GroupId": "sg-041f9f64b2afffdba"
   }
],
"Ipv6Addresses": [],
"MacAddress": "02:19:fc:68:4b:31",
"NetworkInterfaceId": "eni-021ca8be939cd6ee5",
"OwnerId": "043241213129",
"PrivateDnsName": "ip-172-31-40-100.ap-south-1.compute.internal",
```

```
      "PrivateIpAddress": "172.31.40.100",
      "PrivateIpAddresses": [
        {
          "Association": {
            "IpOwnerId": "amazon",
            "PublicDnsName": "ec2-35-154-50-2.ap-south-1.compute.amazonaws.com",
            "PublicIp": "35.154.50.2"
          },
          "Primary": true,
          "PrivateDnsName": "ip-172-31-40-100.ap-south-1.compute.internal",
          "PrivateIpAddress": "172.31.40.100"
        }
      ],
      "SourceDestCheck": true,
      "Status": "in-use",
      "SubnetId": "subnet-0b62104472025c636",
      "VpcId": "vpc-0d7f078357cd79872",
      "InterfaceType": "interface"
    }
  ],
  "RootDeviceName": "/dev/xvda",
  "RootDeviceType": "ebs",
  "SecurityGroups": [
    {
      "GroupName": "launch-wizard-5",
```

```
        "GroupId": "sg-041f9f64b2afffdba"
      }
    ],
    "SourceDestCheck": true,
    "Tags": [
      {
        "Key": "Name",
        "Value": "Plcmnt_grp02"
      }
    ],
    "VirtualizationType": "hvm",
    "CpuOptions": {
      "CoreCount": 1,
      "ThreadsPerCore": 1
    },
    "CapacityReservationSpecification": {
      "CapacityReservationPreference": "open"
    },
    "HibernationOptions": {
      "Configured": false
    },
    "MetadataOptions": {
      "State": "applied",
      "HttpTokens": "required",
      "HttpPutResponseHopLimit": 2,
```

```
            "HttpEndpoint": "enabled",
            "HttpProtocolIpv6": "disabled",
            "InstanceMetadataTags": "disabled"
          },
          "EnclaveOptions": {
            "Enabled": false
          },
          "BootMode": "uefi-preferred",
          "PlatformDetails": "Linux/UNIX",
          "UsageOperation": "RunInstances",
          "UsageOperationUpdateTime": "2024-01-19T07:07:57.000Z",
          "PrivateDnsNameOptions": {
            "HostnameType": "ip-name",
            "EnableResourceNameDnsARecord": true,
            "EnableResourceNameDnsAAAARecord": false
          }
        }
    ],
    "OwnerId": "043241213129",
    "ReservationId": "r-0b1286aed33d59a6b"
},
{
    "Groups": [],
    "Instances": [
        {
```

```
"AmiLaunchIndex": 0,
"ImageId": "ami-0d3f444bc76de0a79",
"InstanceId": "i-0416cd96d5957d426",
"InstanceType": "t2.micro",
"KeyName": "sim.pem.aws",
"LaunchTime": "2024-01-19T07:07:17.000Z",
"Monitoring": {
   "State": "disabled"
},
"Placement": {
   "AvailabilityZone": "ap-south-1a",
   "GroupName": "Partition_group",
   "PartitionNumber": 1,
   "Tenancy": "default"
},
"PrivateDnsName": "ip-172-31-44-72.ap-south-1.compute.internal",
"PrivateIpAddress": "172.31.44.72",
"ProductCodes": [],
"PublicDnsName": "ec2-43-204-32-55.ap-south-1.compute.amazonaws.com",
"PublicIpAddress": "43.204.32.55",
"State": {
   "Code": 16,
   "Name": "running"
},
"StateTransitionReason": "",
```

```
"SubnetId": "subnet-0b62104472025c636",
"VpcId": "vpc-0d7f078357cd79872",
"Architecture": "x86_64",
"BlockDeviceMappings": [
  {
    "DeviceName": "/dev/xvda",
    "Ebs": {
      "AttachTime": "2024-01-19T07:07:18.000Z",
      "DeleteOnTermination": true,
      "Status": "attached",
      "VolumeId": "vol-07bad193a2a4055c6"
    }
  }
],
"ClientToken": "135b57a3-50a4-4fc7-a585-775a741756d2",
"EbsOptimized": false,
"EnaSupport": true,
"Hypervisor": "xen",
"NetworkInterfaces": [
  {
    "Association": {
      "IpOwnerId": "amazon",
      "PublicDnsName": "ec2-43-204-32-55.ap-south-1.compute.amazonaws.com",
      "PublicIp": "43.204.32.55"
    },
```

```
"Attachment": {
   "AttachTime": "2024-01-19T07:07:17.000Z",
   "AttachmentId": "eni-attach-021ffcdbc71f74247",
   "DeleteOnTermination": true,
   "DeviceIndex": 0,
   "Status": "attached",
   "NetworkCardIndex": 0
},
"Description": "",
"Groups": [
   {
      "GroupName": "launch-wizard-4",
      "GroupId": "sg-021ea6ee31580225b"
   }
],
"Ipv6Addresses": [],
"MacAddress": "02:16:d2:a9:cd:1b",
"NetworkInterfaceId": "eni-0f7c18ffc6e0045a0",
"OwnerId": "043241213129",
"PrivateDnsName": "ip-172-31-44-72.ap-south-1.compute.internal",
"PrivateIpAddress": "172.31.44.72",
"PrivateIpAddresses": [
   {
      "Association": {
         "IpOwnerId": "amazon",
```

```
            "PublicDnsName": "ec2-43-204-32-55.ap-south-1.compute.amazonaws.com",
            "PublicIp": "43.204.32.55"
          },
          "Primary": true,
          "PrivateDnsName": "ip-172-31-44-72.ap-south-1.compute.internal",
          "PrivateIpAddress": "172.31.44.72"
        }
      ],
      "SourceDestCheck": true,
      "Status": "in-use",
      "SubnetId": "subnet-0b62104472025c636",
      "VpcId": "vpc-0d7f078357cd79872",
      "InterfaceType": "interface"
    }
  ],
  "RootDeviceName": "/dev/xvda",
  "RootDeviceType": "ebs",
  "SecurityGroups": [
    {
      "GroupName": "launch-wizard-4",
      "GroupId": "sg-021ea6ee31580225b"
    }
  ],
  "SourceDestCheck": true,
  "Tags": [
```

```
    {
      "Key": "Name",
      "Value": "Plcmnt_grp01"
    }
  ],
  "VirtualizationType": "hvm",
  "CpuOptions": {
    "CoreCount": 1,
    "ThreadsPerCore": 1
  },
  "CapacityReservationSpecification": {
    "CapacityReservationPreference": "open"
  },
  "HibernationOptions": {
    "Configured": false
  },
  "MetadataOptions": {
    "State": "applied",
    "HttpTokens": "required",
    "HttpPutResponseHopLimit": 2,
    "HttpEndpoint": "enabled",
    "HttpProtocolIpv6": "disabled",
    "InstanceMetadataTags": "disabled"
  },
  "EnclaveOptions": {
```

```
                "Enabled": false
            },
            "BootMode": "uefi-preferred",
            "PlatformDetails": "Linux/UNIX",
            "UsageOperation": "RunInstances",
            "UsageOperationUpdateTime": "2024-01-19T07:07:17.000Z",
            "PrivateDnsNameOptions": {
                "HostnameType": "ip-name",
                "EnableResourceNameDnsARecord": true,
                "EnableResourceNameDnsAAAARecord": false
            }
          }
        ],
        "OwnerId": "043241213129",
        "ReservationId": "r-04f5bb60a6103648b"
      }
   ]
}
root@DESKTOP-NJSOG33:Downloads#
```