

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 template

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 template.

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 template'.
- 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 template ==> 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#
```

Launch Templates (1) Info					Actions	Create launch template
<input type="text" value="Search"/>					< 1 >	Settings
Launch Template ID	Launch Template Name	Default Version	Latest Version	Create Time		
lt-0b6bcb1259a052807	NewWebServerTemplate	1	1	2024-01-19T06:12:07.0		

Select a launch template

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-NJISOG33: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"

    }

  ],
```



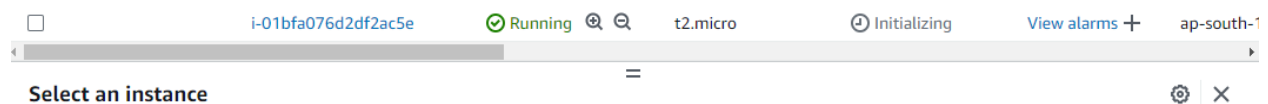
```
{
  "Key": "aws:ec2launchtemplate:version",
  "Value": "1"
},
{
  "Key": "aws:ec2launchtemplate:id",
  "Value": "lt-0b6bcb1259a052807"
}
],
"VirtualizationType": "hvm",
"CpuOptions": {
  "CoreCount": 1,
  "ThreadsPerCore": 1
},
"CapacityReservationSpecification": {
  "CapacityReservationPreference": "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#



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#
```

Launch Templates (1/1) [Info](#)

Search

< 1 > ⚙

Launch Template ID

Launch Template Name

Default Version

Latest Version

Create Time

lt-0b6bcb1259a052807

NewWebServerTemplate

1

2

2024-01-19T06:12:07.00

NewWebServerTemplate (lt-0b6bcb1259a052807)

Instance details

Storage

Resource tags

Network interfaces

Advanced details

AMI ID

Instance type

Availability Zone

Key pair name

ami-0d3f444bc76de0a79

t2.micro

-

-

Security groups

Security group IDs

-

-

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 of elastic IP ==> click on Actions ==> Associate elastic IP address ==> A page will pop up ==> under Instance (choose the instance you want to associate Elastic IP ==> under Private IP address (allocate from the option or give the desired 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 the instance the IP will be the 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.

=====

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",
```

```

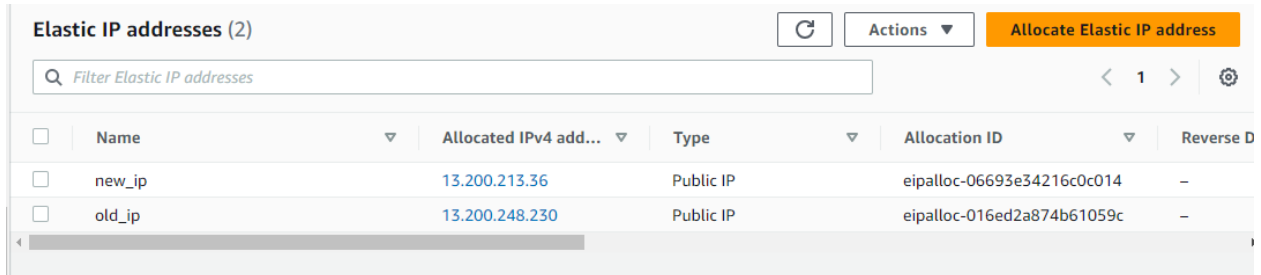
"NetworkBorderGroup": "ap-south-1",

"Domain": "vpc"

}

```

root@DESKTOP-NJSOG33:Downloads#



The screenshot shows the 'Elastic IP addresses (2)' page in the AWS console. It features a search bar, a refresh button, and an 'Allocate Elastic IP address' button. Below is a table with two entries:

<input type="checkbox"/>	Name	Allocated IPv4 address	Type	Allocation ID	Reverse DNS
<input type="checkbox"/>	new_ip	13.200.213.36	Public IP	eipalloc-06693e34216c0c014	-
<input type="checkbox"/>	old_ip	13.200.248.230	Public IP	eipalloc-016ed2a874b61059c	-

```

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

```

c

```

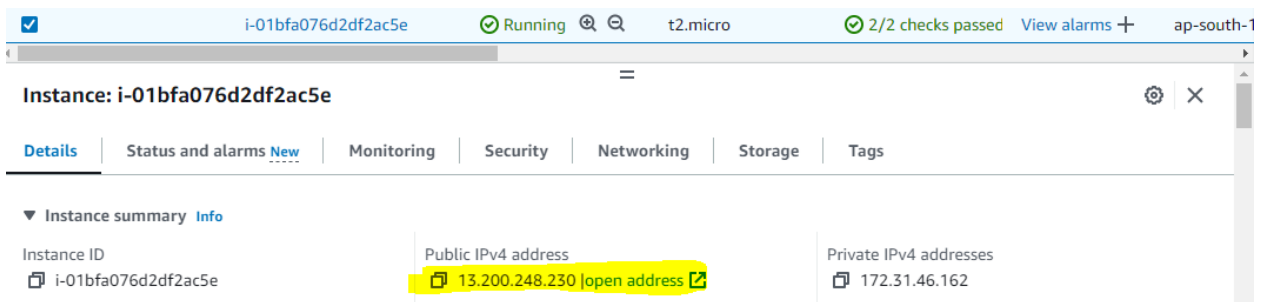
{

  "AssociationId": "eipassoc-0a7209e9e5d997d20"

}

```

root@DESKTOP-NJSOG33:Downloads#



The screenshot shows the 'Instance: i-01bfa076d2df2ac5e' page in the AWS console. The instance is in a 'Running' state. The 'Networking' tab is selected, showing the instance's IP addresses:

Instance ID	Public IPv4 address	Private IPv4 addresses
i-01bfa076d2df2ac5e	13.200.248.230 open address	172.31.46.162

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#
```

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"

}

```

The screenshot shows the AWS Elastic IP addresses console. At the top, there's a header 'Elastic IP addresses (2)' with a refresh button, an 'Actions' dropdown, and an 'Allocate Elastic IP address' button. Below the header is a search bar 'Filter Elastic IP addresses'. The main content is a table with columns: Name, Allocated IPv4 address, Type, Allocation ID, and Reverse DNS. There are two rows: 'new_ip' with IP '13.200.213.36' and 'old_ip' with IP '13.200.248.230'. Both are Public IP addresses with Allocation IDs 'eipalloc-06693e34216c0c014' and 'eipalloc-016ed2a874b61059c' respectively.

Name	Allocated IPv4 address	Type	Allocation ID	Reverse DNS
new_ip	13.200.213.36	Public IP	eipalloc-06693e34216c0c014	-
old_ip	13.200.248.230	Public IP	eipalloc-016ed2a874b61059c	-

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#

```

The screenshot shows the AWS Elastic IP addresses console after the association. The table now has columns: Reverse DNS record, Associated instance ID, Private IP address, Association ID, and Network interface owner. There is one row showing the association of the new IP '13.200.213.36' with the EC2 instance 'i-01bfa076d2df2ac5e' using the Association ID 'eipassoc-0a3d4a5bc3ee5418c'. The Network interface owner is '043241213129'.

Reverse DNS record	Associated instance ID	Private IP address	Association ID	Network interface owner
-	i-01bfa076d2df2ac5e	172.31.46.162	eipassoc-0a3d4a5bc3ee5418c	043241213129

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.

=====

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

Create placement group Info

Placement group settings

Name

Partition_group

Placement strategy

Determines how the instances are placed on the underlying hardware.

Partition

Number of partitions

Choose the number of partitions to create in this placement group.

2

Tags - optional

Key

Value - optional

✓ Placement group created successfully.

Placement groups (1)

Find Placement Group by attribute or tag

	Group name	Group Id	Strategy	State	Partition
	Partition_group	pg-089a732a518a7c...	partition	available	2

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.

	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
<input checked="" type="checkbox"/>	ec2Instance_p...	i-0cc85117715c29dcd	Running	t2.micro	Initializing	View alarms +	ap-south
<input type="checkbox"/>		i-0f20c7021e9ecb5fa	Terminated	t2.micro	-	View alarms +	ap-south

Instance: i-0cc85117715c29dcd (ec2Instance_plcmnt_grp)

▼ Host and placement group Info

Host ID

-

Host resource group name

-

Virtualization type

hvm

Affinity

-

Tenancy

default

Reservation

r-0c8c64e5ce7818042

Placement group

Partition_group

Placement group ID

pg-052e1f95ab7a95b33

Partition number

2

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:-

Instances (1/2) Info

Find Instance by attribute or tag (case-sensitive)

Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability
ec2_plcmnt01	i-0ec689637c146fd5d	Running	t2.micro	Initializing	View alarms +	ap-south-
ec2_plcmnt02	i-077a7500a0122087d	Running	t2.micro	-	View alarms +	ap-south-

Instance: i-0ec689637c146fd5d (ec2_plcmnt01)

Host ID	Attinity	Placement group
-	-	Partition_group
Host resource group name	Tenancy	Placement group ID
-	default	pg-00bb9880a9108514f
Virtualization type	Reservation	Partition number
hvm	r-01e34b54433ef23c3	1

ec2_plcmnt02 i-077a7500a0122087d Running t2.micro - View alarms + ap-south-1

Instance: i-077a7500a0122087d (ec2_plcmnt02)

-	-	Partition_group
Host resource group name	Tenancy	Placement group ID
-	default	pg-00bb9880a9108514f
Virtualization type	Reservation	Partition number
hvm	r-0dc234b4c05bf539c	2
Number of vCPUs		

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

Instances (1/6) Info								Refresh Connect Instance state Actions Launch instances	
<input type="text" value="Find Instance by attribute or tag (case-sensitive)"/>								< 1 > Settings	
<input type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability		
<input type="checkbox"/>		i-01bfa076d2df2ac5e	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1		
<input checked="" type="checkbox"/>	Plcmnt_grp02	i-0f6110ec8a6caab09	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1		
<input type="checkbox"/>	Plcmnt_grp01	i-0416cd96d5957d426	Running	t2.micro	2/2 checks passed	View alarms	ap-south-1		
<input type="checkbox"/>	ec2_plcmnt01	i-0ec689637c146fd5d	Terminated	t2.micro	-	View alarms	ap-south-1		

Placement groups (1)

Find Placement Group by attribute or tag

Actions

Create placement group

<1>

	Group name	Group Id	Strategy	State	Partition	Group ARN
<input checked="" type="radio"/>	Partition_group	pg-00bb9880a9108...	partition	available	2	arn:aws:ec2:a...

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-041f9f64b2afffdb"
  }
],
"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",
"PrivateAddresses": [
  {
    "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-041f9f64b2afffdb"
    }
],
"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#
```