

# PROJECT 1: VPC peering

## SS1: VPCs list

Your VPCs (3) Info

↻

Actions ▾

Create VPC

🔍 Filter VPCs

< 1 > ⚙

<input type="checkbox"/>	Name ▾	VPC ID ▾	State ▾	IPv4 CIDR	IPv6 CIDR
<input type="checkbox"/>	my-vpc-01	vpc-02dd99f4da79d52ec	✔ Available	172.19.0.0/16	–
<input type="checkbox"/>	my-vpc-02	vpc-06e1d0cbd3d057d91	✔ Available	172.16.0.0/16	–
<input type="checkbox"/>	–	vpc-04e64e6f	✔ Available	172.31.0.0/16	–

< [Progress Bar] >

## Ss2: igw list

Internet gateways (3) Info

↺

Actions ▾

Create internet gateway

🔍 Filter internet gateways

< 1 > ⚙

<input type="checkbox"/>	Name ▾	Internet gateway ID ▾	State ▾	VPC ID ▾
<input type="checkbox"/>	my-igw-01	igw-06f9592fbdcecaae8	✔ Attached	vpc-02dd99f4da79d52ec   my-vpc-01
<input type="checkbox"/>	my-igw-02	igw-093dcc4968e16f123	✔ Attached	vpc-06e1d0cbd3d057d91   my-vpc-02
<input type="checkbox"/>	defaultIGW	igw-0e7d3766	✔ Attached	vpc-04e64e6f

<

>

## Ss3: Route list

<a href="#">Create route table</a> <a href="#">Actions</a>						
<input type="text" value="Filter by tags and attributes or search by keyword"/>						<a href="#">Refresh</a> <a href="#">Settings</a> <a href="#">Help</a>
<div>&lt; 1 to 3 of 3 &gt;</div>						
<input type="checkbox"/>	Name	Route Table ID	Explicit subnet associatio	Edge associations	Main	VPC ID
<input type="checkbox"/>		rtb-06a9d86d	-	-	Yes	vpc-04e64e6f
<input type="checkbox"/>	my-routetable-01	rtb-04ee933fe151f0be2	-	-	Yes	vpc-02dd99f4da79d52ec
<input checked="" type="checkbox"/>	my-routetable-02	rtb-0bf0ebef9b7b21ee7	-	-	Yes	vpc-06e1d0cbd3d057d91

## Ss4: Subnet list

Create subnetActions

Filter by tags and attributes or search by keyword1 to 5 of 5

	Name	Subnet ID	State	VPC	IPv4 CIDR	Available IPv4	IPv6 CIDR
<input checked="" type="checkbox"/>	my-subnet-02	subnet-09a1c81fe7906491c	available	vpc-06e1d0cbd3d057d91...	172.16.16.0/24	251	-
<input type="checkbox"/>	my-subnet-01	subnet-0b2e6afd4193341c0	available	vpc-02dd99f4da79d52ec ...	172.19.19.0/24	251	-
		subnet-b9d5a3f5	available	vpc-04e64e6f	172.31.32.0/20	4091	-

Subnet: subnet-09a1c81fe7906491c

Description

Flow Logs

Route Table

Network ACL

Tags

Sharing

Subnet ID

subnet-09a1c81fe7906491c

VPC

vpc-06e1d0cbd3d057d91 | my-vpc-02

Available IPv4 Addresses

251

Availability Zone

us-east-2b (use2-az2)

Network ACL

acl-0178d56fe6df18148

Auto-assign public IPv4 address

Yes

Customer-owned IPv4 pool

-

Outpost ID

-

State

available

IPv4 CIDR

172.16.16.0/24

IPv6 CIDR

-

Route Table

rtb-0bf0ebef9b7b21ee7 | my-routetable-02

Default subnet

No

Auto-assign customer-owned IPv4 address

No

Auto-assign IPv6 address

No

Owner

643891741780

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## Ss5: instance details

☒

Name	Instance ID	Instance state	Instance type	Status check	Alarm Status	Availability zone
windows 1	i-0399e9504a61aaa83	Running	t2.micro	2/2 checks ...	No alarms	us-east-2b

Instance: i-0399e9504a61aaa83 (windows 1)

Details

Security

Networking

Storage

Status Checks

Monitoring

Tags

Instance summary

Info

Instance ID

i-0399e9504a61aaa83 (windows 1)

Instance state

Running

Instance type

t2.micro

Public IPv4 address

18.217.196.226 | open address

Public IPv4 DNS

-

Elastic IP addresses

-

Private IPv4 addresses

172.19.19.230

Private IPv4 DNS

ip-172-19-19-230.us-east-2.compute.internal

VPC ID

vpc-02dd99f4da79d52ec (my-vpc-01)

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Windows instance first

<input checked="" type="checkbox"/>	Name	Instance ID	Instance state	Instance type	Status check	Alarm Status	Availability zone
<input checked="" type="checkbox"/>	windows 2	i-0f86bfa6d4f6f1c61	Running	t2.micro	2/2 checks ...	No alarms +	us-east-2b

Instance: i-0f86bfa6d4f6f1c61 (windows 2)

Details

Security

Networking

Storage

Status Checks

Monitoring

Tags

▼ Instance summary Info

<div>Instance ID</div> <div>i-0f86bfa6d4f6f1c61 (windows 2)</div>	<div>Public IPv4 address</div> <div>3.129.64.123   <a href="#">open address</a></div>	<div>Private IPv4 addresses</div> <div>172.16.16.22</div>
<div>Instance state</div> <div>Running</div>	<div>Public IPv4 DNS</div> <div>–</div>	<div>Private IPv4 DNS</div> <div>ip-172-16-16-22.us-east-2.compute.internal</div>
<div>Instance type</div> <div>t2.micro</div>	<div>Elastic IP addresses</div> <div>–</div>	<div>VPC ID</div> <div>vpc-06e1d0cbd3d057d91 (my-vpc-02)</div>

ec2/v2/home?region=us-east-2#InstanceDetails:instanceId=i-0f86bfa6d4f6f1c61

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Windows instance second

Ss6: success public ip ping from host machine

```

C:\WINDOWS\system32\cmd.exe

C:\Users\Raj Thakur>ping 187.217.196.226

Pinging 187.217.196.226 with 32 bytes of data:
Reply from 187.217.196.226: bytes=32 time=355ms TTL=238
Reply from 187.217.196.226: bytes=32 time=356ms TTL=238
Reply from 187.217.196.226: bytes=32 time=354ms TTL=238
Reply from 187.217.196.226: bytes=32 time=354ms TTL=238

Ping statistics for 187.217.196.226:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 354ms, Maximum = 356ms, Average = 354ms

C:\Users\Raj Thakur>ping 3.129.64.123

Pinging 3.129.64.123 with 32 bytes of data:
Reply from 3.129.64.123: bytes=32 time=235ms TTL=92
Reply from 3.129.64.123: bytes=32 time=236ms TTL=92
Reply from 3.129.64.123: bytes=32 time=236ms TTL=92
Reply from 3.129.64.123: bytes=32 time=236ms TTL=92

Ping statistics for 3.129.64.123:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 235ms, Maximum = 236ms, Average = 235ms

C:\Users\Raj Thakur>_

```

## Ss7: peering with req and acceptor

Filter by tags and attributes or search by keyword

<<

>>

1 to 1 of 1

Name	Peering Connection	Status	Requester VPC	Acceptor VPC	Requester CIDRs	Acceptor CIDRs
my-peering-connection...	pcx-063bf5c5a52f...	Active	vpc-02dd99f4da7...	vpc-06e1d0cbd3d...	172.19.0.0/16	172.16.0.0/16

Peering Connection: pcx-063bf5c5a52ff2d94

Description

DNS

Route Tables

Tags

Requester VPC owner

Requester VPC ID

Requester VPC Region

Requester VPC CIDRs

VPC Peering Connection

Expiration time

643891741780

vpce-02dd99f4da7d952ec

Ohio (us-east-2)

172.19.0.0/16

pcx-063bf5c5a52ff2d94

-

Acceptor VPC owner

Acceptor VPC ID

Acceptor VPC Region

Acceptor VPC CIDRs

Peering connection status

643891741780

vpce-06e1d0cbd3d057d91

Ohio (us-east-2)

172.16.0.0/16

Active

## Ss8: success for private ip ping from one machine to another

Administrator: Command Prompt

```
Microsoft Windows [Version 10.0.17763.1518]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Administrator>ping 172.16.16.22

Pinging 172.16.16.22 with 32 bytes of data:
Reply from 172.16.16.22: bytes=32 time<1ms TTL=128
Reply from 172.16.16.22: bytes=32 time<1ms TTL=128
Reply from 172.16.16.22: bytes=32 time<1ms TTL=128
Reply from 172.16.16.22: bytes=32 time<1ms TTL=128

Ping statistics for 172.16.16.22:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

C:\Users\Administrator>
```

Machine 2 private IP

Machine 1

Hostname: EC2AMAZ-JOTJRLH  
Instance ID: i-0399e9504a61aaa83  
Public IP Address: 18.217.196.226  
Private IP Address: 172.19.19.230  
Instance Size: t2.micro  
Availability Zone: us-east-2b  
Architecture: AMD64  
Total Memory: 1024 MB  
Network Performance: Low to Moderate

## Project 2: IAM

Task 1: Creating users **with** permissions-IAM password policy check.

Ss1: user summary with all tab information

Users > scott

### Summary

Delete user ?

**User ARN** arn:aws:iam::643891741780:user/scott

**Path** /

**Creation time** 2020-10-22 23:03 UTC+0530

Permissions Groups Tags Security credentials Access Advisor

▼ Permissions policies (1 policy applied)

Add permissions Add inline policy

Policy name ▼	Policy type ▼
Attached directly	
▶  IAMUserChangePassword	AWS managed policy ✕
▶ Permissions boundary (not set)	

Task 2: Creating users **without** the IAM password policy.

Ss2: user summary with all tab information

Users > tiger

### Summary

Delete user ?

**User ARN** arn:aws:iam::643891741780:user/tiger

**Path** /

**Creation time** 2020-10-22 23:05 UTC+0530

Permissions Groups Tags Security credentials Access Advisor

▼ Permissions policies

**Get started with permissions**

This user doesn't have any permissions yet. Get started by adding the user to a group, copying permissions from another user, or attaching a policy directly. [Learn more](#)

Add permissions Add inline policy

▶ Permissions boundary (not set)

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### Task 3: Create a user with S3 full access

#### Ss3: User summary

[Users](#) > [bunny](#)

## Summary

Delete user ⓘ

**User ARN** am:aws:iam::643891741780:user/bunny ⓘ

**Path** /

**Creation time** 2020-10-22 23:06 UTC+0530

Permissions

Groups

Tags

Security credentials

Access Advisor

▼ Permissions policies (2 policies applied)

Add permissions [+ Add inline policy](#)

Policy name ▼	Policy type ▼	
Attached directly		
▶  AmazonS3FullAccess	AWS managed policy	✕
▶  IAMUserChangePassword	AWS managed policy	✕
▶ Permissions boundary (not set)		

### Task4: Create a group with ec2 full access

#### Ss4: group summary

[IAM](#) > [Groups](#) > [group\\_for\\_ec2\\_full\\_access](#)

## Summary

**Group ARN:** am:aws:iam::643891741780:group/group\_for\_ec2\_full\_access ⓘ

**Users (in this group):** 1

**Path:** /

**Creation Time:** 2020-10-22 23:07 UTC+0530

Users

Permissions

Access Advisor

Managed Policies

^

The following managed policies are attached to this group. You can attach up to 10 managed policies.

Attach Policy

Policy Name	Actions
AmazonEC2FullAccess	<a href="#">Show Policy</a>   <a href="#">Detach Policy</a>   <a href="#">Simulate Policy</a>

Inline Policies

▼

Task 5: Add user to a group and check if user policy and the group policy is reflecting on the user

Ss5: user summary with permissions

Users > bunny

## Summary

[Delete user](#) [?](#)

**User ARN** am:aws:iam::643891741780:user/bunny [🔗](#)

**Path** /

**Creation time** 2020-10-22 23:06 UTC+0530

**Permissions** **Groups (1)** **Tags** **Security credentials** **Access Advisor**

▼ Permissions policies (3 policies applied)

[Add permissions](#) [+ Add inline policy](#)

Policy name ▼	Policy type ▼	
<b>Attached directly</b>		
<a href="#">AmazonS3FullAccess</a>	AWS managed policy	✕
<a href="#">IAMUserChangePassword</a>	AWS managed policy	✕
<b>Attached from group</b>		
<a href="#">AmazonEC2FullAccess</a>	AWS managed policy from group <a href="#">group_for_ec2_full_access</a>	✕

Ss6: login as this user show that this policy is in effect

aws Services ▼

bunny @ 6438-9174-1780 ▼ Ohio ▼ Support ▼

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

### Step 7: Review Instance Launch

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.

▼ AMI Details [Edit AMI](#)

**Microsoft Windows Server 2019 Base - ami-0354df7841220296c**

**Free tier eligible** Microsoft Windows 2019 Datacenter edition. [English]  
Root Device Type: ebs Virtualization type: hvm

If you plan to use this AMI for an application that benefits from Microsoft License Mobility, fill out the [License Mobility Form](#). [Don't show me this again](#)

▼ Instance Type [Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	-	1	1	EBS only	-	Low to Moderate

▼ Security Groups [Edit security groups](#)

**Security group name** launch-wizard-20  
**Description** launch-wizard-20 created 2020-10-22T23:12:26.217+05:30

[Cancel](#) [Previous](#) [Launch](#)

Feedback English (US) ▼

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Logged in as user "bunny"

able to create ec2 instances

Task 6: Copy policies from the existing user

Step 7: attach user summary of the user from which you create a new user

Select an existing user from which to copy policies and group membership.

### Copy permissions from existing user

Showing 3 results

	User name ▾	Groups	Attached policies
<input checked="" type="radio"/>	bunny	group_for_ec2_full_access	AmazonS3FullAccess and 1 more
<input type="radio"/>	scott	None	IAMUserChangePassword
<input type="radio"/>	tiger	None	None

[Cancel](#) [Previous](#) [Next: Tags](#)

### Review

Review your choices. After you create the user, you can view and download the autogenerated password and access key.

#### User details

<b>User name</b>	harry
<b>AWS access type</b>	Programmatic access and AWS Management Console access
<b>Console password type</b>	Custom
<b>Require password reset</b>	Yes
<b>Permissions boundary</b>	Permissions boundary is not set

#### Permissions summary

The following groups and policies will be copied from the selected existing user and attached to the user shown above.

Type	Name
Group	group_for_ec2_full_access
Managed policy	AmazonS3FullAccess
Managed policy	IAMUserChangePassword

[Cancel](#) [Previous](#) [Create user](#)



Ss8: login as this user show that this policy is in effect

aws Services

harry @ 6438-9174-1780 Ohio Support

1. Choose AMI 2. Choose Instance Type 3. Configure Instance 4. Add Storage 5. Add Tags 6. Configure Security Group 7. Review

### Step 7: Review Instance Launch

Please review your instance launch details. You can go back to edit changes for each section. Click **Launch** to assign a key pair to your instance and complete the launch process.

**AMI Details** [Edit AMI](#)

**Ubuntu Server 20.04 LTS (HVM), SSD Volume Type - ami-07efac79022b86107**  
Free tier eligible  
Ubuntu Server 20.04 LTS (HVM), EBS General Purpose (SSD) Volume Type. Support available from Canonical (<http://www.ubuntu.com/cloud/services>).  
Root Device Type: ebs Virtualization type: hvm

**Instance Type** [Edit instance type](#)

Instance Type	ECUs	vCPUs	Memory (GiB)	Instance Storage (GB)	EBS-Optimized Available	Network Performance
t2.micro	-	1	1	EBS only	-	Low to Moderate

**Security Groups** [Edit security groups](#)

**Security group name** launch-wizard-20  
**Description** launch-wizard-20 created 2020-10-22T23:18:31.475+05:30

Type	Protocol	Port Range	Source	Description

[Cancel](#) [Previous](#) [Launch](#)

Feedback English (US)

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Task 7: Add user to a group in the process of creating a user : Same as above attached screenshots.

Task 8: setting a password policy

Ss9: password policy screen

aws Services

rajthakur Global Support

### Set password policy

A password policy is a set of rules that define complexity requirements and mandatory rotation periods for your IAM users' passwords. [Learn more](#)

**Select your account password policy requirements:**

- ☒ Enforce minimum password length  
8 characters
- ☒ Require at least one uppercase letter from Latin alphabet (A-Z)
- ☒ Require at least one lowercase letter from Latin alphabet (a-z)
- ☒ Require at least one number
- ☒ Require at least one non-alphanumeric character (! @ # \$ % ^ & \* ( ) \_ + - = [ ] { } | ' )
- ☒ Enable password expiration  
Expire passwords in 90 day(s)
- ☐ Password expiration requires administrator reset
- ☒ Allow users to change their own password
- ☒ Prevent password reuse  
Remember 5 password(s)

[Cancel](#) [Save changes](#)

Feedback English (US)

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Ss10: login as the user and show password incompatibility error

**aws**

Either user is not authorized to perform iam:ChangePassword or entered password does not comply with account password policy set by administrator

AWS account 643891741780

IAM user name Scott

Old password

New password

Retype new password

[Confirm password change](#)

[Sign in using root user email](#)

English

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Task 9:Enabling MFA and using an MFA device

Ss11: enable MFA

**Set up virtual MFA device**

1. **Install a compatible app on your mobile device or computer**  
[See a list of compatible applications](#)

2. **Use your virtual MFA app and your device's camera to scan the QR code**



Alternatively, you can type the secret key. [Show secret key](#)

[Cancel](#) [Previous](#) [Assign MFA](#)

## Ss12: login screen for MFA

[illegible]