Task 4

1-Create VPC with public and private subnets

-VPC

vpc-00b0b1efbb5968237 / lec3-vpc

Actions ▼

Details Info

VPC ID	**State**	**DNS hostnames**	**DNS resolution**
⧉ vpc-00b0b1efbb5968237	⊘ Available	Disabled	Enabled
Tenancy	**DHCP option set**	**Main route table**	**Main network ACL**
Default	dopt-0c7aa65913755a586	rtb-0a6ca7610411d9c29	acl-07a8627b18b1487f0
Default VPC	**IPv4 CIDR**	**IPv6 pool**	**IPv6 CIDR (Network border group)**
No	10.0.0.0/16	–	–
Network Address Usage metrics	**Route 53 Resolver DNS Firewall rule groups**	**Owner ID**	
Disabled	–	⧉ 034362032911	

Resource map | CIDRs | Flow logs | Tags | Integrations

Resource map Info

VPC Show details	**Subnets (0)**	**Route tables (1)**	**Network connections (0)**
Your AWS virtual network	Subnets within this VPC	Route network traffic to resources	Connections to other networks
lec3-vpc		rtb-0a6ca7610411d9c29	

-Public subnet

Subnets (1/1) Info

Last updated less than a minute ago ⟳ Actions ▼ **Create subnet**

Q Find resources by attribute or tag

Subnet ID : subnet-0722e2f9337c150ca ✕ | Clear filters

< 1 > ⚙

☑	Name ▽	Subnet ID ▽	State ▽	VPC ▽	IPv4 CIDR ▽	IPv6 CIDR ▽	IPv6 CIDR associa
☑	lec3-public-subnet	subnet-0722e2f9337c150ca	⊘ Available	vpc-00b0b1efbb5968237 | lec3...	10.0.1.0/24	–	–

subnet-0722e2f9337c150ca / lec3-public-subnet

Details | Flow logs | Route table | Network ACL | CIDR reservations | Sharing | Tags

Details

Subnet ID	**Subnet ARN**	**State**	**IPv4 CIDR**
⧉ subnet-0722e2f9337c150ca	⧉ arn:aws:ec2:us-east-1:034362032911:subnet/subnet-0722e2f9337c150ca	⊘ Available	⧉ 10.0.1.0/24
Available IPv4 addresses		**IPv6 CIDR association ID**	**Availability Zone**
⧉ 251	**IPv6 CIDR**	–	⧉ us-east-1a
Availability Zone ID	–	**VPC**	**Route table**
⧉ use1-az6	**Network border group**	vpc-00b0b1efbb5968237 | lec3-vpc	–
Network ACL	⧉ us-east-1	**Auto-assign public IPv4 address**	**Auto-assign IPv6 address**
–	**Default subnet**	No	No
Auto-assign customer-owned IPv4 address	No	**Outpost ID**	**IPv4 CIDR reservations**
No	**Customer-owned IPv4 pool**	–	–
IPv6 CIDR reservations	–	**Hostname type**	**Resource name DNS A record**
–	**IPv6-only**	IP name	Disabled
Resource name DNS AAAA record	No	**Owner**	

Task 4

-Private subnet

2-Create igw then attach it with public subnet

3-Create NAT gateway then attach it with private subnet via route table

Task 4

4-Create ec2 instance inside public subnet

Instances (1/3) Info | Last updated less than a minute ago | Connect | Instance state ▼ | Actions ▼ | **Launch instances** ▼

	Name ✎	▽	Instance ID	Instance state	▽	Instance type	▽	Status check	Alarm status	Availability Zone	▽	Public IPv4 DNS	▽	Public IPv4 ...
☑	lec3-pinstance		i-040e7f3dc45532822	⊘ Running	⊕ ⊖	t2.micro		⊘ 2/2 checks passed	View alarms +	us-east-1a		–		3.88.4.64
☐	privatte-ec2		i-0781912f62314dad1	⊘ Running	⊕ ⊖	t2.micro		⊘ 2/2 checks passed	View alarms +	us-east-1b		–		–
☐	publiic-ec2		i-096aab7433c342800	⊘ Running	⊕ ⊖	t2.micro		⊘ 2/2 checks passed	View alarms +	us-east-1b		–		18.215.126.23

i-040e7f3dc45532822 (lec3-pinstance)

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

▼ Instance summary Info

Instance ID
🗇 i-040e7f3dc45532822 (lec3-pinstance)

Public IPv4 address
🗇 3.88.4.64 | open address 🔗

Private IPv4 addresses
🗇 10.0.1.183

IPv6 address
–

Instance state
⊘ Running

Public IPv4 DNS
–

Hostname type
IP name: ip-10-0-1-183.ec2.internal

Private IP DNS name (IPv4 only)
🗇 ip-10-0-1-183.ec2.internal

Answer private resource DNS name
–

Instance type
t2.micro

Elastic IP addresses
–

Auto-assigned IP address
🗇 3.88.4.64 [Public IP]

VPC ID
🗇 vpc-00b0b1efbb5968237 (lec3-vpc) 🔗

AWS Compute Optimizer finding
ⓘ Opt-in to AWS Compute Optimizer for recommendations. | Learn more 🔗

IAM Role
No roles attached to instance profile: lec3-access-s3

Subnet ID
🗇 subnet-0722e2f9337c150ca (lec3-public-subnet) 🔗

Auto Scaling Group name
–

IMDSv2
Required

Instance ARN
🗇 arn:aws:ec2:us-east-1:034362032911:instance/i-040e7f3dc45532822

3-Create s3 bucket

General purpose buckets (2) Info [All AWS Regions] | ⟳ | 🗇 Copy ARN | Empty | Delete | **Create bucket**

Buckets are containers for data stored in S3.

	Name	▲	AWS Region	▽	IAM Access Analyzer	Creation date	▽
○	lec3-buckket		US East (N. Virginia) us-east-1		View analyzer for us-east-1	August 25, 2024, 12:08:24 (UTC+03:00)	
○	myyfirsttbuckett		US East (N. Virginia) us-east-1		View analyzer for us-east-1	August 25, 2024, 09:34:00 (UTC+03:00)	

Task 4

6- Create IAM role to access s3 bucket and give this role to ec2

AM > Roles > lec3-access-s3

lec3-access-s3 Info

Allows EC2 instances to call AWS services on your behalf.

Delete

Summary

Edit

Creation date	ARN	Instance profile ARN
August 25, 2024, 12:11 (UTC+03:00)	🗇 arn:aws:iam::034362032911:role/lec3-access-s3	🗇 arn:aws:iam::034362032911:instance-profile/lec3-access-s3
Last activity	Maximum session duration	
⊘ 37 minutes ago	1 hour	

Permissions | Trust relationships | Tags | Access Advisor | Revoke sessions

Permissions policies (2) Info

You can attach up to 10 managed policies.

C | Simulate ↗ | Remove | Add permissions ▼

	Filter by Type	
Q Search	All types ▼	‹ 1 › ⚙

	Policy name ↗ ▲	Type ▽	Attached entities ▽
☐	⊞ 🛡 AmazonS3FullAccess	AWS managed	2
☐	⊞ 🛡 AmazonS3ReadOnlyAccess	AWS managed	1

Attached entities ✕

Roles ↗
- lec3-access-s3
- Role-s3

▶ **Permissions boundary** (not set)

2

1 Attached entities ✕

Roles ↗
- lec3-access-s3

Task 4

7- Now using terminal upload file after you access the ec2 instance

```
ola-youssef@oy-pc:~/Downloads$ find / -name test2.odt 2>/dev/null
/home/ola-youssef/Downloads/test2.odt
ola-youssef@oy-pc:~/Downloads$ ls -l /home/ola-youssef/Downloads/test2.odt
ola-youssef@oy-pc:~/Downloads$ scp -i "lec3-key-pair.pem" /home/ola-youssef/Downloads/test2.odt  ec2-user@3.88.4.64:/home/ec2-user/
test2.odt                                                                         100% 9574    33.4KB/s    00:00
ola-youssef@oy-pc:~/Downloads$ ssh -i "lec3-key-pair.pem" ec2-user@3.88.4.64
   ,     #_
   ~\_  ####_          Amazon Linux 2023
  ~~  \_#####\
  ~~     \###|
  ~~       \#/ ___    https://aws.amazon.com/linux/amazon-linux-2023
   ~~       V~' '->
    ~~~         /
      ~~._.   _/
         _/ _/
        _/m/'
Last login: Sun Aug 25 11:01:52 2024 from 41.234.43.57
[ec2-user@ip-10-0-1-183 ~]$ aws s3 cp /home/ec2-user/test2.odt s3://lec3-buckket/test2.odt
upload: ./test2.odt to s3://lec3-buckket/test2.odt
[ec2-user@ip-10-0-1-183 ~]$
```

Amazon S3 > Buckets > lec3-buckket

lec3-buckket Info

| Objects | Properties | Permissions | Metrics | Management | Access Points |

Objects (2) Info

Objects are the fundamental entities stored in Amazon S3. You can use Amazon S3 inventory to get a list of all objects in your bucket. For others to access your objects, you'll need to explicitly grant them permissions. Learn more

	Name ▲	Type	Last modified	Size	Storage class
☐	lec3-testt.odt	odt	August 25, 2024, 14:18:02 (UTC+03:00)	9.3 KB	Standard
☐	test2.odt	odt	August 25, 2024, 14:34:10 (UTC+03:00)	9.3 KB	Standard