

Task 2

1- Create VPC

Your VPCs (1/2) [Info](#)

| Name | VPC ID | State | IPv4 CIDR | IPv6 CIDR | DHCP option set | Main route table |
|----------|-----------------------|-----------|---------------|-----------|------------------------|-----------------------|
| yatt-vpc | vpc-0ab60e4937275f267 | Available | 10.1.0.0/16 | - | dopt-0c7aa65913755a... | rtb-06d89bbe2fcc7d32d |
| - | vpc-037ed837d88d00ac4 | Available | 172.31.0.0/16 | - | dopt-0c7aa65913755a... | rtb-0bfa9247e8865971d |

vpc-0ab60e4937275f267 / yatt-vpc

Details | Resource map | CIDRs | Flow logs | Tags | Integrations

Details

| | | | |
|---|---|---|---|
| VPC ID vpc-0ab60e4937275f267 | State Available | DNS hostnames Disabled | DNS resolution Enabled |
| Tenancy Default | DHCP option set dopt-0c7aa65913755a586 | Main route table rtb-06d89bbe2fcc7d32d | Main network ACL acl-0dd418749d4ff1e |
| Default VPC No | IPv4 CIDR 10.1.0.0/16 | IPv6 pool - | IPv6 CIDR (Network border group) - |
| Network Address Usage metrics Disabled | Route 53 Resolver DNS Firewall rule groups - | Owner ID 034362032911 | |

2- Create internet gateway then attach it with VPC you created

Internet gateways (1/2) [Info](#)

| Name | Internet gateway ID | State | VPC ID | Owner |
|----------|-----------------------|----------|----------------------------------|--------------|
| - | igw-022eca761cfeb09c9 | Attached | vpc-037ed837d88d00ac4 | 034362032911 |
| yatt-igw | igw-0a05df96f23f11fd9 | Attached | vpc-0ab60e4937275f267 yatt-vpc | 034362032911 |

igw-0a05df96f23f11fd9 / yatt-igw

Details | Tags

Details

| | | | |
|--|-------------------|--|-----------------------|
| Internet gateway ID igw-0a05df96f23f11fd9 | State Attached | VPC ID vpc-0ab60e4937275f267 yatt-vpc | Owner 034362032911 |
|--|-------------------|--|-----------------------|

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3- Create route table in your VPC and connect it with igw you created to make this route table able to access or connect with internet

Route tables (1/3) [Info](#)

| Name | Route table ID | Explicit subnet associations | Edge associations | Main | VPC | Owner ID |
|--|---------------------------------------|---|-------------------|------|---|--------------|
| - | rtb-06d89bbe2fcc7d32d | - | - | Yes | vpc-0ab60e4937275f267 yatt... | 034362032911 |
| - | rtb-0bfa9247e8865971d | - | - | Yes | vpc-037ed837d88d00ac4 | 034362032911 |
| <input checked="" type="checkbox"/> public-route-table | rtb-072a0e798ef1fd78b | subnet-0ba2a17ef104dbf... | - | No | vpc-0ab60e4937275f267 yatt... | 034362032911 |

rtb-072a0e798ef1fd78b / public-route-table

[Details](#) [Routes](#) [Subnet associations](#) [Edge associations](#) [Route propagation](#) [Tags](#)

Details

| | | | |
|---|--|--|------------------------|
| Route table ID rtb-072a0e798ef1fd78b | Main <input type="checkbox"/> No | Explicit subnet associations subnet-0ba2a17ef104dbf69 / my-public-subnett | Edge associations - |
| VPC vpc-0ab60e4937275f267 yatt-vpc | Owner ID 034362032911 | | |

Route tables (1/3) [Info](#)

| Name | Route table ID | Explicit subnet associations | Edge associations | Main | VPC | Owner ID |
|--|---------------------------------------|---|-------------------|------|---|--------------|
| - | rtb-06d89bbe2fcc7d32d | - | - | Yes | vpc-0ab60e4937275f267 yatt... | 034362032911 |
| - | rtb-0bfa9247e8865971d | - | - | Yes | vpc-037ed837d88d00ac4 | 034362032911 |
| <input checked="" type="checkbox"/> public-route-table | rtb-072a0e798ef1fd78b | subnet-0ba2a17ef104dbf... | - | No | vpc-0ab60e4937275f267 yatt... | 034362032911 |

rtb-072a0e798ef1fd78b / public-route-table

[Details](#) [Routes](#) [Subnet associations](#) [Edge associations](#) [Route propagation](#) [Tags](#)

Routes (2)

| Destination | Target | Status | Propagated |
|-------------|---------------------------------------|--|------------|
| 0.0.0.0/0 | igw-0a05df96f23f11fd9 | <input checked="" type="checkbox"/> Active | No |
| 10.1.0.0/16 | local | <input checked="" type="checkbox"/> Active | No |

Task 2

4- Create a public subnet inside the VPC you created and connect it with the route table you created

| Subnets (1/8) Info | | | | | | | Last updated 4 minutes ago | Actions | Create subnet |
|-------------------------------------|-------------------|------------------------|---|----------------|-----------|------------------|----------------------------|-------------------------|-------------------------------|
| Name | Subnet ID | State | VPC | IPv4 CIDR | IPv6 CIDR | IPv6 CIDR assoc. | | | |
| <input type="checkbox"/> | - | Available | vpc-037ed837d88d00ac4 | 172.31.0.0/20 | - | - | | | |
| <input type="checkbox"/> | - | Available | vpc-037ed837d88d00ac4 | 172.31.64.0/20 | - | - | | | |
| <input type="checkbox"/> | - | Available | vpc-037ed837d88d00ac4 | 172.31.48.0/20 | - | - | | | |
| <input type="checkbox"/> | - | Available | vpc-037ed837d88d00ac4 | 172.31.80.0/20 | - | - | | | |
| <input type="checkbox"/> | - | Available | vpc-037ed837d88d00ac4 | 172.31.16.0/20 | - | - | | | |
| <input checked="" type="checkbox"/> | my-public-subnett | Available | vpc-0ab60e4937275f267 yatt... arn:aws:ec2:us-east-1:034362032911:subnet/subnet-0ba2a17ef104dbf69 | 10.1.0.0/24 | - | - | | | |

Details

| | | |
|--|---|---|
| Subnet ID <input type="checkbox"/> subnet-0ba2a17ef104dbf69 | Subnet ARN <input type="checkbox"/> arn:aws:ec2:us-east-1:034362032911:subnet/subnet-0ba2a17ef104dbf69 | IPv4 CIDR <input type="checkbox"/> 10.1.0.0/24 |
| Available IPv4 addresses <input type="checkbox"/> 250 | IPv6 CIDR - | Availability Zone <input type="checkbox"/> us-east-1b |
| Availability Zone ID <input type="checkbox"/> use1-az1 | Network border group <input type="checkbox"/> us-east-1 | Route table rtb-072a0e798ef1fd78b public-route-table |
| Network ACL acl-0dd418749d4f9ff1e | Default subnet No | Auto-assign public IPv4 address No |
| Auto-assign customer-owned IPv4 address No | Customer-owned IPv4 pool - | Outpost ID - |
| IPv6 CIDR reservations - | IPv6-only No | Hostname type IP name |
| Resource name DNS AAAA record Disabled | DNS64 Disabled | Owner <input type="checkbox"/> 034362032911 |

5- Create private subnet inside the VPC you created

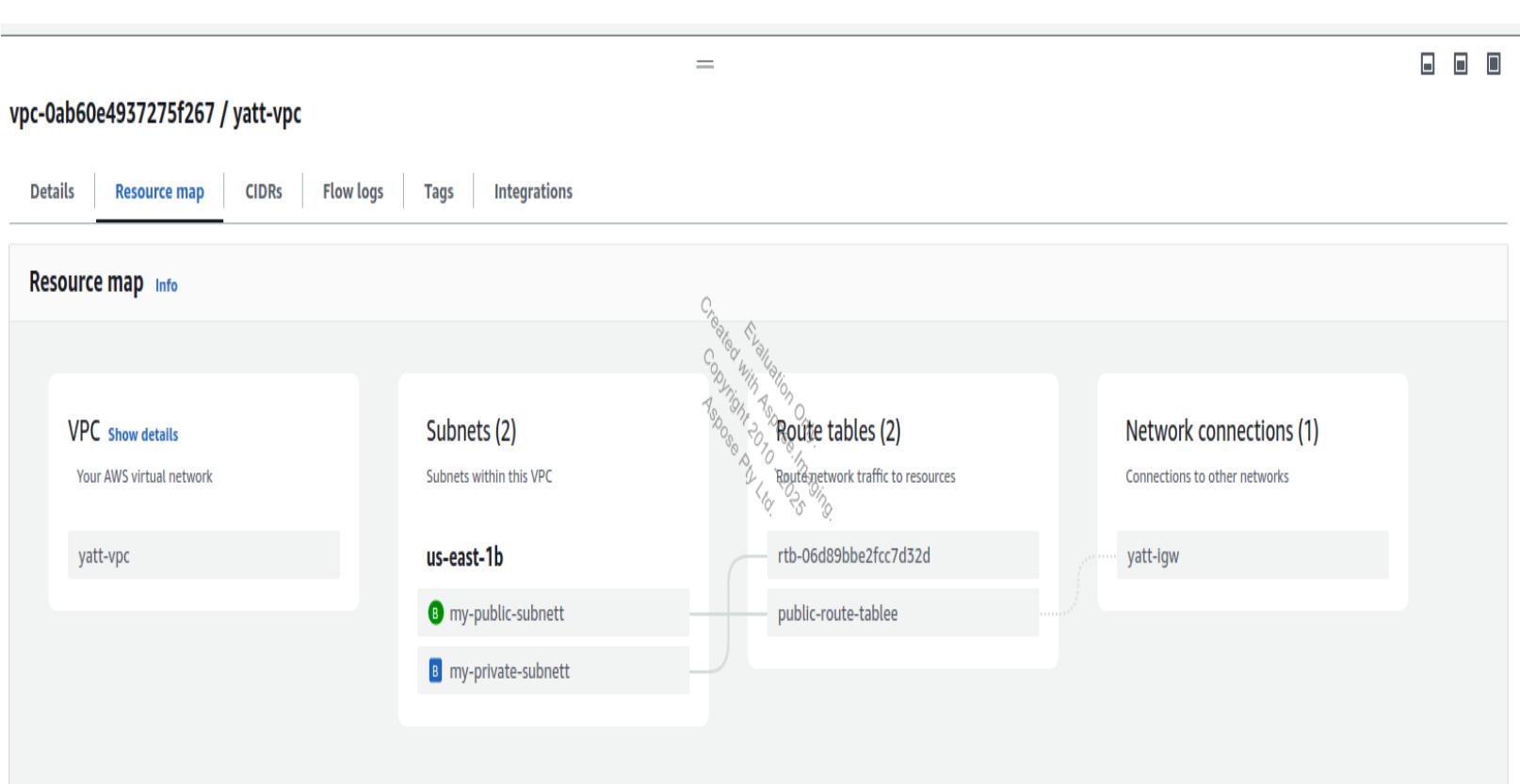
| Subnets (1/8) Info | | | | | | | Last updated 11 minutes ago | Actions | Create subnet |
|-------------------------------------|--------------------|------------------------|---|----------------|-----------|------------------|-----------------------------|-------------------------|-------------------------------|
| Name | Subnet ID | State | VPC | IPv4 CIDR | IPv6 CIDR | IPv6 CIDR assoc. | | | |
| <input type="checkbox"/> | - | Available | vpc-037ed837d88d00ac4 | 172.31.48.0/20 | - | - | | | |
| <input type="checkbox"/> | - | Available | vpc-037ed837d88d00ac4 | 172.31.80.0/20 | - | - | | | |
| <input type="checkbox"/> | - | Available | vpc-037ed837d88d00ac4 | 172.31.16.0/20 | - | - | | | |
| <input type="checkbox"/> | my-public-subnett | Available | vpc-0ab60e4937275f267 yatt... arn:aws:ec2:us-east-1:034362032911:subnet/subnet-0ba2a17ef104dbf69 | 10.1.0.0/24 | - | - | | | |
| <input checked="" type="checkbox"/> | my-private-subnett | Available | vpc-0ab60e4937275f267 yatt... arn:aws:ec2:us-east-1:034362032911:subnet/subnet-0bf2d1bd51f0fe7cc | 10.1.1.0/24 | - | - | | | |

Details

| | | |
|--|---|--|
| Subnet ID <input type="checkbox"/> subnet-0bf2d1bd51f0fe7cc | Subnet ARN <input type="checkbox"/> arn:aws:ec2:us-east-1:034362032911:subnet/subnet-0bf2d1bd51f0fe7cc | IPv4 CIDR <input type="checkbox"/> 10.1.1.0/24 |
| Available IPv4 addresses <input type="checkbox"/> 250 | IPv6 CIDR - | Availability Zone <input type="checkbox"/> us-east-1b |
| Availability Zone ID <input type="checkbox"/> use1-az1 | Network border group <input type="checkbox"/> us-east-1 | Route table rtb-06d89bbe2fcc7d32d |
| Network ACL acl-0dd418749d4f9ff1e | Default subnet No | Auto-assign public IPv4 address No |
| Auto-assign customer-owned IPv4 address No | Customer-owned IPv4 pool - | Outpost ID - |
| IPv6 CIDR reservations - | IPv6-only No | Hostname type IP name |
| Resource name DNS AAAA record Disabled | DNS64 Disabled | Owner <input type="checkbox"/> 034362032911 |

Task 2

6- Final result



Task 2

7- Create private ec2 instance inside the private subnet

Instances (1/2) [Info](#)

| Name | Instance ID | Instance state | Instance type | Status check | Alarm status | Availability Zone | Public IPv4 DNS | Public IPv4 ... |
|---|---------------------|----------------------|---------------|--------------------------------|-----------------------------|-------------------|-----------------|-----------------|
| <input checked="" type="checkbox"/> private-ec2 | I-0781912f62314dad1 | Running | t2.micro | 2/2 checks passed | View alarms | us-east-1b | - | - |
| <input type="checkbox"/> public-ec2 | I-096aab7433c342800 | Running | t2.micro | 2/2 checks passed | View alarms | us-east-1b | - | 18.215.126.23 |

i-0781912f62314dad1 (private-ec2)

[Details](#) [Status and alarms](#) [Monitoring](#) [Security](#) [Networking](#) [Storage](#) [Tags](#)

Instance summary [Info](#)

| | | | |
|-------------------------------------|---|--|---|
| Instance ID | I-0781912f62314dad1 (private-ec2) | Public IPv4 address | Private IPv4 addresses |
| IPv6 address | - | - | 10.1.1.139 |
| Hostname type | Private IP DNS name (IPv4 only) | Public IPv4 DNS | - |
| IP name: ip-10-1-1-139.ec2.internal | Ip-10-1-1-139.ec2.internal | Elastic IP addresses | - |
| Answer private resource DNS name | Instance type | AWS Compute Optimizer finding | Opt-In to AWS Compute Optimizer for recommendations. Learn more |
| - | t2.micro | VPC ID | vpc-0ab60e4937275f267 (yatt-vpc) |
| Auto-assigned IP address | VPC ID | Subnet ID | Auto Scaling Group name |
| - | vpc-0ab60e4937275f267 (yatt-vpc) | subnet-0bf2d1bd51f0fe7cc (my-private-subnet) | - |
| IAM Role | Instance ARN | Instance ARN | arn:aws:ec2:us-east-1:034362032911:instance/I-0781912f62314dad1 |
| - | | | |
| IMDSv2 | | | |
| Required | | | |

8- Create public ec2 instance inside the public subnet

Instances (1/2) [Info](#)

| Name | Instance ID | Instance state | Instance type | Status check | Alarm status | Availability Zone | Public IPv4 DNS | Public IPv4 ... |
|--|---------------------|----------------------|---------------|--------------------------------|-----------------------------|-------------------|-----------------|-----------------|
| <input type="checkbox"/> private-ec2 | I-0781912f62314dad1 | Running | t2.micro | 2/2 checks passed | View alarms | us-east-1b | - | - |
| <input checked="" type="checkbox"/> public-ec2 | I-096aab7433c342800 | Running | t2.micro | 2/2 checks passed | View alarms | us-east-1b | - | 18.215.126.23 |

i-096aab7433c342800 (public-ec2)

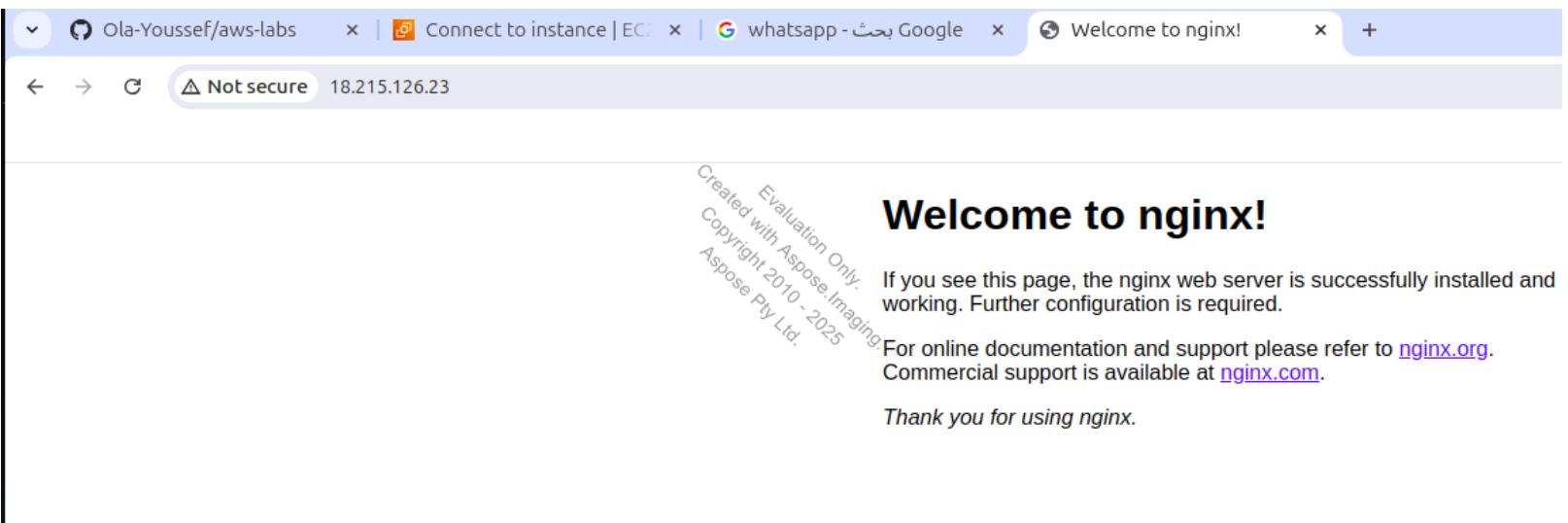
[Details](#) [Status and alarms](#) [Monitoring](#) [Security](#) [Networking](#) [Storage](#) [Tags](#)

Instance summary [Info](#)

| | | | |
|---|---|-------------------------------|---|
| Instance ID | I-096aab7433c342800 (public-ec2) | Public IPv4 address | Private IPv4 addresses |
| IPv6 address | - | - | 10.1.0.99 |
| Hostname type | Private IP DNS name (IPv4 only) | Public IPv4 DNS | - |
| IP name: ip-10-1-0-99.ec2.internal | Ip-10-1-0-99.ec2.internal | Elastic IP addresses | - |
| Answer private resource DNS name | Instance type | AWS Compute Optimizer finding | Opt-In to AWS Compute Optimizer for recommendations. Learn more |
| - | t2.micro | VPC ID | vpc-0ab60e4937275f267 (yatt-vpc) |
| Auto-assigned IP address | VPC ID | Subnet ID | Auto Scaling Group name |
| 18.215.126.23 [Public IP] | subnet-0ba2a17ef104dbf69 (my-public-subnet) | Instance ARN | arn:aws:ec2:us-east-1:034362032911:instance/I-096aab7433c342800 |
| IAM Role | | | |
| - | | | |
| IMDSv2 | | | |
| Required | | | |

Task 2

9- Access your public instance



```
ola-youssef@oy-pc:~$ ssh -i "yatt-keyys.pem" ec2-user@18.215.126.23
Warning: Identity file yatt-keyys.pem not accessible: No such file or directory.
ec2-user@18.215.126.23: Permission denied (publickey,gssapi-keyex,gssapi-with-mic).
ola-youssef@oy-pc:~$ cd Downloads
ola-youssef@oy-pc:~/Downloads$ ssh -i "yatt-keyys.pem" ec2-user@18.215.126.23
,      #
~\_\_ #####_      Amazon Linux 2023
~~ \_\#\#\#\#\_
~~   \#\#\#|
~~     \#/ _ __ https://aws.amazon.com/linux/amazon-linux-2023
~~       V~' '->
~~           /
~~.._. _/
~~/_ _/
~/m/'  
Evaluation Only.
Copyright 2010 - 2025
Aspose Pty Ltd.  
Last login: Fri Aug 23 12:42:50 2024 from 41.36.34.121
[ec2-user@ip-10-1-0-99 ~]$
```

Task 2

10- Edit and update nginx page interface using terminal



```
root@ip-10-1-0-99:/usr/share/nginx/html
audit      gettext    mime-info sssd-kcm
augeas     gettext-0.21 misc      systemd
awk        glib-2.0   myspell   systemtap
backgrounds gnome      nano      tset
bash-completion groff     nginx    terminfo
chrony     grub      os-prober vim
cmake      help      p11-kit   wayland-sessions
cracklib   hwdatas  pam      xfsprows
crypto-policies i18n     icons    xsessions
dbus-1     icons    libxml2  zoneinfo
desktop-directories idl      libxml2  zsh
dict       info      libxml2  pkgconfig
doc        keyutils  libxml2  polkit-1
empty      libgpg-error polkit-1
[root@ip-10-1-0-99 share]# cd nginx
[root@ip-10-1-0-99 nginx]# ls
html modules
[root@ip-10-1-0-99 nginx]# cd html
[root@ip-10-1-0-99 html]# ls
404.html 50x.html icons index.html nginx-logo.png poweredby.png
[root@ip-10-1-0-99 html]# echo "Wellcommmee" > index.html
[root@ip-10-1-0-99 html]# cat index.html
Wellcommmee
[root@ip-10-1-0-99 html]#
```

11-Now access the private instance using public instance

```
ec2-user@ip-10-1-1-139:~          ola-youssef@oy-pc: ~/Downloads:~ 
404.html 50x.html icons index.html nginx-logo.png poweredby.png
[root@ip-10-1-0-99 html]# echo "Wellcommmee" > index.html
[root@ip-10-1-0-99 html]# cat index.html
Wellcommmee
[root@ip-10-1-0-99 html]# cd
[root@ip-10-1-0-99 ~]# vi mynewkey.pem
[root@ip-10-1-0-99 ~]# chmod 400 mynewkey.pem
[root@ip-10-1-0-99 ~]# ssh -i "mynewkey.pem" ec2-user@10.1.1.139
The authenticity of host '10.1.1.139' (10.1.1.139) can't be established.
ED25519 key fingerprint is SHA256:qwF6YQ3VeieL7N07xt6rd8hsSKx/zhMFaJuStTTyQT0.
This key is not known by any other names.
Are you sure you want to continue connecting (yes/no/[fingerprint])? yes
Warning: Permanently added '10.1.1.139' (ED25519) to the list of known hosts.

,      #
~\_\_ #####_      Amazon Linux 2023
~~ \_\#\#\#\_
~~   \#\#\#
~~     \#/ __  https://aws.amazon.com/linux/amazon-linux-2023
~~     V~' '-'>
~~      /
~~.._. /_
~/ /_
~/m/' [ec2-user@ip-10-1-1-139 ~]$
```