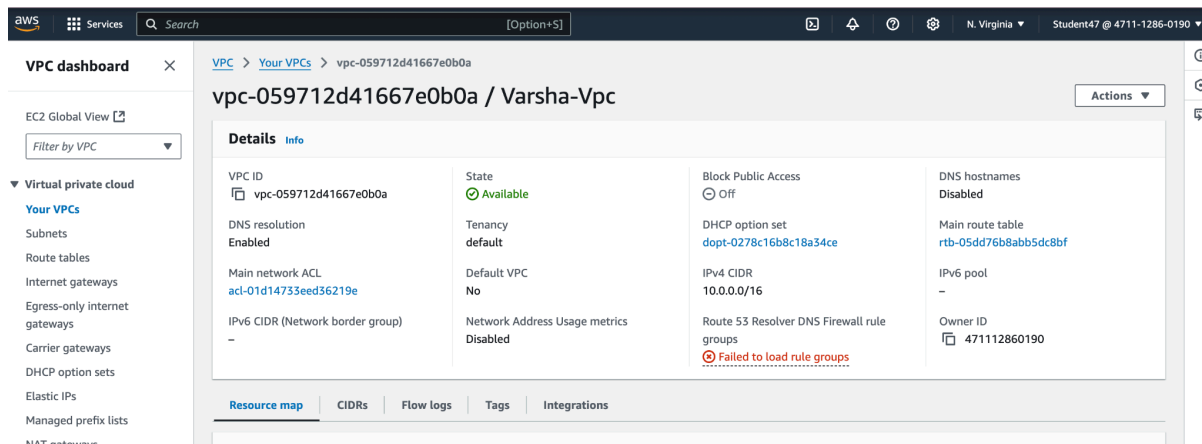


PROJECT-1:- DEPLOYING A WEBSITE ON AWS EC2 INSTANCE

1.creating vpc

Steps :

1. In AWS console, search VPC.
2. In VPC dashboard , you will get my VPC's and click on myvpc's.
3. Click on create VPC. Select resource to create as vpc only.
4. Give name as Varsha-vpc and IPv4 CIDR as 10.0.0.0/16.
5. Then click on create VPC.



Internet Gateway:

Steps :

1. In VPC dashboard, click on Internet Gateway.
2. To create Internet gateway, click on create Internet Gateway.
3. Then give name as Varsha-igw and click on create Internet Gateway.
4. Your internet Gateway is created , right click on the gateway and click on attach to vpc .

aws Services Search [Option+S] N. Virginia Student47 @ 4711-1286-0190

VPC dashboard ×

EC2 Global View Filter by VPC ▾

▼ Virtual private cloud

- Your VPCs
- Subnets
- Route tables
- Internet gateways**
- Egress-only internet gateways
- Carrier gateways
- DHCP option sets

VPC > Internet gateways > igw-0e18dabc7b1a153d7

igw-0e18dabc7b1a153d7 / Varsha-igw

Actions ▾

Details Info

Internet gateway ID igw-0e18dabc7b1a153d7	State Attached	VPC ID vpc-059712d41667e0b0a Varsha-Vpc	Owner 471112860190
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Tags Manage tags

Search tags

Key	Value
Name	Varsha-igw

Subnet1:

aws Services Search [Option+S] N. Virginia Student47 @ 4711-1286-0190

VPC dashboard ×

EC2 Global View Filter by VPC ▾

▼ Virtual private cloud

- Your VPCs
- Subnets**
- Route tables
- Internet gateways
- Egress-only internet gateways
- Carrier gateways
- DHCP option sets
- Elastic IPs
- Managed prefix lists
- NAT gateways
- Peering connections

▼ Security

- Network ACLs
- Security groups

VPC > Subnets > subnet-0ce073078de268fd0

subnet-0ce073078de268fd0 / Varsha-subnet-01

Actions ▾

Details

Subnet ID subnet-0ce073078de268fd0	Subnet ARN arn:aws:ec2:us-east-1:471112860190:subnet/subnet-0ce073078de268fd0	State Available	Block Public Access Off
IPv4 CIDR 10.0.1.0/24	Available IPv4 addresses 251	IPv6 CIDR -	IPv6 CIDR association ID -
Availability Zone us-east-1d	Availability Zone ID use1-az4	Network border group us-east-1	VPC vpc-059712d41667e0b0a Varsha-Vpc
Route table rtb-05dd76b8abb5dc8bf	Network ACL -	Default subnet No	Auto-assign public IPv4 address No
Auto-assign IPv6 address No	Auto-assign customer-owned IPv4 address No	Customer-owned IPv4 pool -	Outpost ID -
IPv4 CIDR reservations -	IPv6 CIDR reservations -	IPv6-only No	Hostname type IP name
Resource name DNS A record Disabled	Resource name DNS AAAA record Disabled	DNS64 Disabled	Owner 471112860190

Subnet2:

The screenshot shows the AWS VPC console interface. The top navigation bar includes the AWS logo, a search bar, and the user's account information (N. Virginia, Student47 @ 4711-1286-0190). The left sidebar contains the 'VPC dashboard' and a list of services under 'Virtual private cloud' and 'Security'. The main content area displays the details for the subnet 'subnet-0a69d4c3c1eb7a6c0 / Varsha-subnet-02'. The details are organized into a table with four columns: Subnet ID, Subnet ARN, State, and Block Public Access. The Subnet ID is 'subnet-0a69d4c3c1eb7a6c0', the Subnet ARN is 'arn:aws:ec2:us-east-1:471112860190:subnet/subnet-0a69d4c3c1eb7a6c0', the State is 'Available', and Block Public Access is 'Off'. Other details include IPv4 CIDR (10.0.2.0/24), Availability Zone (us-east-1d), Route table (rtb-05dd76b8abb5dc8bf), Auto-assign IPv4 address (No), IPv4 CIDR reservations (No), Resource name DNS A record (Disabled), Available IPv4 addresses (251), Availability Zone ID (use1-az4), Network ACL (No), Auto-assign customer-owned IPv4 address (No), IPv6 CIDR reservations (No), Resource name DNS AAAA record (Disabled), Network border group (us-east-1), Default subnet (No), Customer-owned IPv4 pool (No), IPv6-only (No), DNS64 (Disabled), Outpost ID (No), Hostname type (IP name), and Owner (471112860190).

Subnet ID	Subnet ARN	State	Block Public Access
subnet-0a69d4c3c1eb7a6c0	arn:aws:ec2:us-east-1:471112860190:subnet/subnet-0a69d4c3c1eb7a6c0	Available	Off
IPv4 CIDR	Available IPv4 addresses	IPv6 CIDR	IPv6 CIDR association ID
10.0.2.0/24	251	-	-
Availability Zone	Availability Zone ID	Network border group	VPC
us-east-1d	use1-az4	us-east-1	vpc-059712d41667e0b0a Varsha-Vpc
Route table	Network ACL	Default subnet	Auto-assign public IPv4 address
rtb-05dd76b8abb5dc8bf	-	No	No
Auto-assign IPv4 address	Auto-assign customer-owned IPv4 address	Customer-owned IPv4 pool	Outpost ID
No	No	No	-
IPv4 CIDR reservations	IPv6 CIDR reservations	IPv6-only	Hostname type
-	-	No	IP name
Resource name DNS A record	Resource name DNS AAAA record	DNS64	Owner
Disabled	Disabled	Disabled	471112860190

Router Table:

Steps

1. To create Route table, click on create route table.
2. In route table setting, give route table name as Varsha-route-table-01 and select vpc that is created.
3. Then click on create route table.
4. After route table is created, go to routes and click on edit route and then click on add route.
5. Then in destination, select 0.0.0.0/0 as destination and target as Internet Gateways .
6. After selecting internet gateway, it allows to select the igw- and select the internet gateway that is created by you.
7. At last click on save changes.
8. Then go to subnet association and click on edit subnet association.
9. Select the subnet you have created and click on save changes.

VPC dashboard

EC2 Global View [\[?\]](#)

Filter by VPC [▼](#)

▼ Virtual private cloud

Your VPCs

Subnets

Route tables

Internet gateways

Egress-only internet gateways

Carrier gateways

DHCP option sets

Elastic IPs

Managed prefix lists

NAT gateways

Peering connections

VPC > **Route tables** > rtb-0bb81c2f2a4eb4ca8

rtb-0bb81c2f2a4eb4ca8 / Varsha-Routetable-01 Actions ▼

Details [Info](#)

Route table ID rtb-0bb81c2f2a4eb4ca8	Main No	Explicit subnet associations -	Edge associations -
VPC vpc-059712d41667e0b0a Varsha-Vpc	Owner ID 471112860190		

Routes | Subnet associations | Edge associations | Route propagation | Tags

Routes (2) Both ▼ Edit routes

[Filter routes](#)

Destination	Target	Status	Propagated
0.0.0.0/0	igw-Oe18dabc7b1a153d7	Active	No
10.0.0.0/16	local	Active	No

5.Create EC2 Instance

EC2 > **Instances** > i-0d715b3e544caaf85

Instance summary for i-0d715b3e544caaf85 (Varsha-Server) [Info](#) Connect Instance state ▼ Actions ▼

Updated less than a minute ago

Instance ID i-0d715b3e544caaf85	Public IPv4 address 98.81.216.156 open address [?]	Private IPv4 addresses 10.0.1.160
IPv6 address -	Instance state Running	Public IPv4 DNS -
Hostname type IP name: ip-10-0-1-160.ec2.internal	Private IP DNS name (IPv4 only) ip-10-0-1-160.ec2.internal	Elastic IP addresses -
Answer private resource DNS name -	Instance type t2.micro	AWS Compute Optimizer finding ⚠ User: amcaws:iamc:471112860190-user/Student47 is not authorized to perform: compute-optimizer:GetEnrollmentStatus on resource: * because no identity-based policy allows the compute-optimizer:GetEnrollmentStatus action Retry
Auto-assigned IP address 98.81.216.156 [Public IP]	VPC ID vpc-059712d41667e0b0a (Varsha-Vpc)	Auto Scaling Group name -
IAM Role -	Subnet ID subnet-0ce073078de268fd0 (Varsha-subnet-01)	Managed false
IMDSv2 Required	Instance ARN arn:aws:ec2:us-east-1:471112860190:instance/i-0d715b3e544caaf85	

Connection:

[EC2](#) > [Instances](#) > [i-0fe159569d299046d](#) > **Connect to instance**





Connect to instance [Info](#)

Connect to your instance `i-0fe159569d299046d` (varsha-server) using any of these options

EC2 Instance Connect	Session Manager	SSH client	EC2 serial console
----------------------	-----------------	------------	--------------------

Instance ID
i-0fe159569d299046d (varsha-server)

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is `var-keypair.pem`.
3. Run this command, if necessary, to ensure your key is not publicly viewable.
 `chmod 400 "var-keypair.pem"`
4. Connect to your instance using its Private IP:
 `ssh -i 10.0.1.13`

```
ssh -i "var-keypair.pem" ec2-user@10.0.1.13
```

Note: In most cases, the guessed username is correct. However, read your AMI usage instructions to check if the AMI owner has changed the default AMI username.

Command prompt:

```

→ Downloads ssh -i "Varsha-Keypair-New.pem" ec2-user@98.81.216.156
Amazon Linux 2023
https://aws.amazon.com/linux/amazon-linux-2023

Last login: Fri Dec 13 00:23:11 2024 from 116.75.104.29
[ec2-user@ip-10-0-1-160 ~]$ sudo yum install httpd -y
Amazon Linux 2023 repository
Amazon Linux 2023 Kernel Livepatch repository
Dependencies resolved.

Package Architecture Version Repository Size
Installing:
httpd x86_64 2.4.62-1.amzn2023 amazonlinux 48
Installing dependencies:
apr x86_64 1.7.2-2.amzn2023.0.2 amazonlinux 129
apr-util x86_64 1.6.3-1.amzn2023.0.1 amazonlinux 98
generic-logos-httpd noarch 18.0.0-12.amzn2023.0.3 amazonlinux 19
httpd-core x86_64 2.4.62-1.amzn2023 amazonlinux 1.4
httpd-filesystem x86_64 2.4.62-1.amzn2023 amazonlinux 14
httpd-tools x86_64 2.4.62-1.amzn2023 amazonlinux 81
libbrotli x86_64 1.0.9-4.amzn2023.0.2 amazonlinux 315
mailcap noarch 2.1.49-3.amzn2023.0.3 amazonlinux 33
Installing weak dependencies:
apr-util-openssl x86_64 1.6.3-1.amzn2023.0.1 amazonlinux 17
mod_http2 x86_64 2.0.27-1.amzn2023.0.3 amazonlinux 166
mod_lua x86_64 2.4.62-1.amzn2023 amazonlinux 61

Transaction Summary

```

```
[ec2-user@ip-10-0-1-160 ~]$ sudo systemctl start httpd
[ec2-user@ip-10-0-1-160 ~]$ systemctl status httpd
● httpd.service - The Apache HTTP Server
   Loaded: loaded (/usr/lib/systemd/system/httpd.service; disabled; preset: disabled)
   Active: active (running) since Fri 2024-12-13 00:27:04 UTC; 8s ago
     Docs: man:httpd.service(8)
  Main PID: 26655 (httpd)
    Status: "Started, listening on: port 80"
     Tasks: 177 (limit: 1111)
    Memory: 13.0M
       CPU: 57ms
    CGroup: /system.slice/httpd.service
            └─26655 /usr/sbin/httpd -DFOREGROUND
              └─26656 /usr/sbin/httpd -DFOREGROUND
                └─26657 /usr/sbin/httpd -DFOREGROUND
                  └─26658 /usr/sbin/httpd -DFOREGROUND
                    └─26659 /usr/sbin/httpd -DFOREGROUND

Dec 13 00:27:04 ip-10-0-1-160.ec2.internal systemd[1]: Starting httpd.service - The Apache HTTP Server...
Dec 13 00:27:04 ip-10-0-1-160.ec2.internal systemd[1]: Started httpd.service - The Apache HTTP Server.
Dec 13 00:27:04 ip-10-0-1-160.ec2.internal httpd[26655]: Server configured, listening on: port 80
[ec2-user@ip-10-0-1-160 ~]$
```

result :

