

Lab 2: Build your VPC and Launch a Web Server

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Task 1: Create Your VPC

VPC settings

Resources to create [Info](#)

Create only the VPC resource or the VPC and other networking resources.

☐ VPC only

☒ VPC and more

Name tag auto-generation [Info](#)

Enter a value for the Name tag. This value will be used to auto-generate Name tags for all resources in the VPC.

☒ Auto-generate

lab

IPv4 CIDR block [Info](#)

Determine the starting IP and the size of your VPC using CIDR notation.

10.0.0.0/16

65,536 IPs

IPv6 CIDR block [Info](#)

☒ No IPv6 CIDR block

☐ Amazon-provided IPv6 CIDR block

Tenancy [Info](#)

Default

Number of Availability Zones (AZs) [Info](#)

Choose the number of AZs in which to provision subnets. We recommend at least two AZs for high availability.

1

2

3

► Customize AZs

Number of public subnets [Info](#)

The number of public subnets to add to your VPC. Use public subnets for web applications that need to be publicly accessible over the internet.

0

1

Number of public subnets [Info](#)

The number of public subnets to add to your VPC. Use public subnets for web applications that need to be publicly accessible over the internet.

0	1
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Number of private subnets [Info](#)

The number of private subnets to add to your VPC. Use private subnets to secure backend resources that don't need public access.

0	1	2
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▼ Customize subnets CIDR blocks

Public subnet CIDR block in us-east-1a

10.0.0.0/24	256 IPs
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Private subnet CIDR block in us-east-1a

10.0.1.0/24	256 IPs
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NAT gateways (\$) [Info](#)

Choose the number of Availability Zones (AZs) in which to create NAT gateways. Note that there is a charge for each NAT gateway

None	In 1 AZ	1 per AZ
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VPC endpoints [Info](#)

Endpoints can help reduce NAT gateway charges and improve security by accessing S3 directly from the VPC. By default, full access policy is used. You can customize this policy at any time.

None	S3 Gateway
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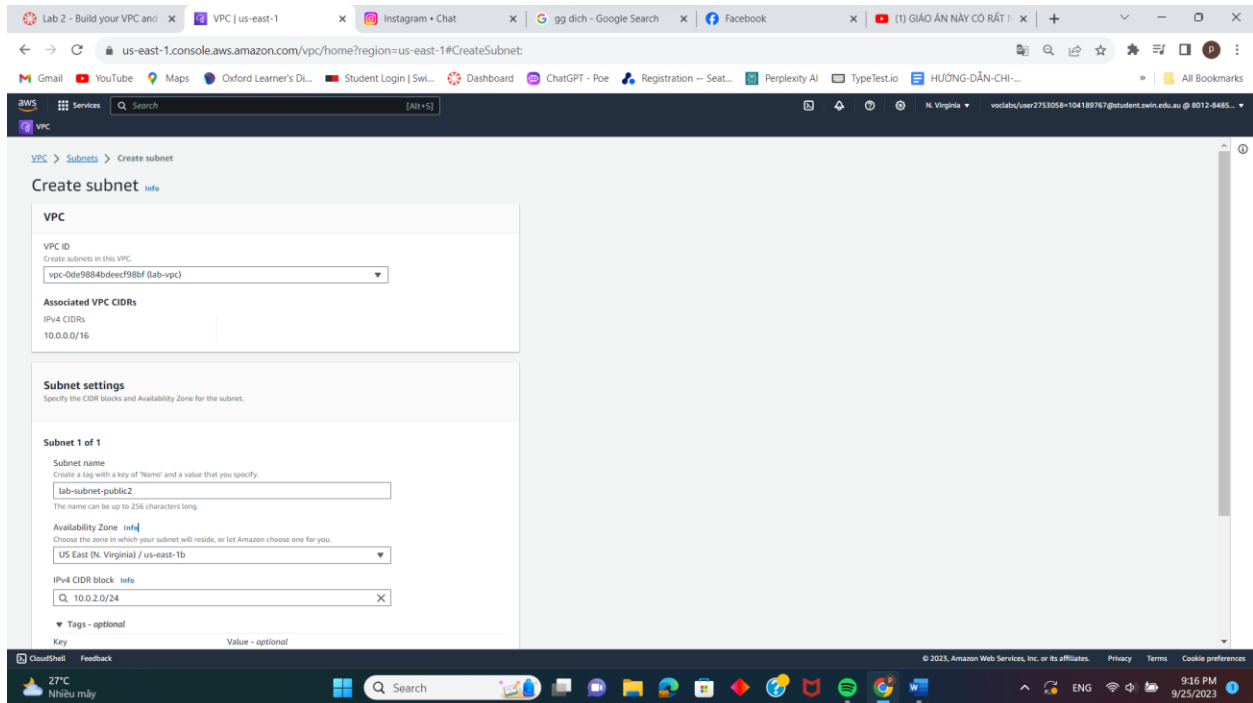
DNS options [Info](#)

- ☒ Enable DNS hostnames
- ☒ Enable DNS resolution

► Additional tags

I change the value to lab , number of Availability, public private subnet , NAT gateways (\$) to In 1 AZ and VPC endpoints to None. After checking and confirming, Create VPC

Task 2: Create Additional Subnets



I create the public subnet and configure as instructions : VPC ID , Subnet name , Availability Zone, Ipv4 CIDR block.

VPC

VPC ID

Create subnets in this VPC.

vpc-0de9884bdeecf98bf (lab-vpc)

Associated VPC CIDRs

IPv4 CIDRs

10.0.0.0/16

Subnet settings

Specify the CIDR blocks and Availability Zone for the subnet.

Subnet 1 of 1

Subnet name

Create a tag with a key of 'Name' and a value that you specify.

lab-subnet-private2

The name can be up to 256 characters long.

Availability Zone [Info](#)

Choose the zone in which your subnet will reside, or let Amazon choose one for you.

US East (N. Virginia) / us-east-1b

IPv4 CIDR block [Info](#)

10.0.3.0/24

and then create the second private subnet.

Edit subnet associations

Change which subnets are associated with this route table.

Available subnets (1/4)

Filter subnet associations

1

	Name	Subnet ID	IPv4 CIDR	IPv6 CIDR	Route table ID
<input checked="" type="checkbox"/>	lab-subnet-private2	subnet-0069f62189adaf2f9	10.0.3.0/24	–	rtb-0e8863772535a7162 / lab-rtb-privat...
<input type="checkbox"/>	lab-subnet-public1-us-east-1a	subnet-080e48fb07a4fd672	10.0.0.0/24	–	rtb-0283dfd9521f5fcl / lab-rtb-public
<input type="checkbox"/>	lab-subnet-public2	subnet-001a73b9357614677	10.0.2.0/24	–	Main (rtb-073e05514a4aa9e53)
<input type="checkbox"/>	lab-subnet-private1-us-east-1a	subnet-015840a2e88d467a4	10.0.1.0/24	–	Main (rtb-073e05514a4aa9e53)

Selected subnets

subnet-0069f62189adaf2f9 / lab-subnet-private2

I select lab-subnet-private2 to use route traffic from private subnet.

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Services Search [Alt+S]

Name and tags info

Name: Web Server 1 [Add additional tags](#)

Application and OS Images (Amazon Machine Image) info

An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance. Search or Browse for AMIs if you don't see what you are looking for below.

Search our full catalog including 1000s of application and OS images

Recents Quick Start

Amazon Linux Ubuntu Windows Red Hat SUSE L

Amazon Linux 2023 AMI
ami-0346eae9933b055dc / ami-0346eae9933b055dc (64-bit (x86))
Virtualization: hvm EBS enabled: true Root device type: ebs Free tier eligible

Description: Amazon Linux 2023 AMI 2023.2.20230920.1 x86_64 HVM kernel 6.1

Architecture: 64-bit (x86) AMI ID: ami-0346eae9933b055dc [View details](#)

Summary

Number of instances: 1

Software Image (AMI): Amazon Linux 2023 AMI 2023.2.2...[read more](#)
ami-0346eae9933b055dc

Virtual server type (instance type): t2.micro

Firewall (security group): New security group

Storage (volumes): 1 volume(s) - 8 GiB

Free tier: In your first year includes 750 hours of t2.micro for t3.micro in the Regions in which t2.micro is unavailable) instance usage on free tier AMIs per month, 30 GiB of EBS storage, 2 million I/Os, 1 GiB of snapshots, and 100 GB of bandwidth to the internet.

[Cancel](#) [Launch instance](#) [Review commands](#)

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Services Search [Alt+S]

Instance type info

Instance type: t2.micro Free tier eligible [All generations](#) [Compare instance types](#)

Family: t2 1 vCPU 1 GiB Memory Current generation: true
On-Demand Windows base pricing: 0.0162 USD per Hour
On-Demand SUSE base pricing: 0.0116 USD per Hour
On-Demand RHEL base pricing: 0.0116 USD per Hour
On-Demand Linux base pricing: 0.0116 USD per Hour

Additional costs apply for AMIs with pre-installed software

Key pair (login) info

You can use a key pair to securely connect to your instance. Ensure that you have access to the selected key pair before you launch the instance.

Key pair name - required: vockey [Create new key pair](#)

Network settings info

VPC - required: vpc-0d69884bdec9f8bf (lab-vpc) [Create new VPC](#)

Subnet: subnet-001a73b9357614677 lab-subnet-public2 [Create new subnet](#)

VPC: vpc-0d69884bdec9f8bf Owner: 801284055187 Availability Zone: us-east-1b IP addresses available: 251 CIDR: 10.0.2.0/24

Auto-assign public IP: Enable

Firewall (security group) info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☐ Create security group ☒ Select existing security group

Common security groups: [Select security groups](#) [Compare security group rules](#)

Web Security Group sg-0045714cac3aed55d [X](#)
VPC: vpc-0d69884bdec9f8bf

Security groups that you add or remove here will be added to or removed from all your network interfaces.

Advanced network configuration

Summary

Number of instances: 1

Software Image (AMI): Amazon Linux 2023 AMI 2023.2.2...[read more](#)
ami-0346eae9933b055dc

Virtual server type (instance type): t2.micro

Firewall (security group): [New security group](#)

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[Cancel](#) [Launch instance](#) [Review commands](#)

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aws vpc

Firewall (security group) info

A security group is a set of firewall rules that control the traffic for your instance. Add rules to allow specific traffic to reach your instance.

☐ Create security group ☒ Select existing security group

Common security groups: [Select security groups](#) [Compare security group rules](#)

Web Security Group sg-0045714cac3aed55d [X](#)
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Advanced network configuration

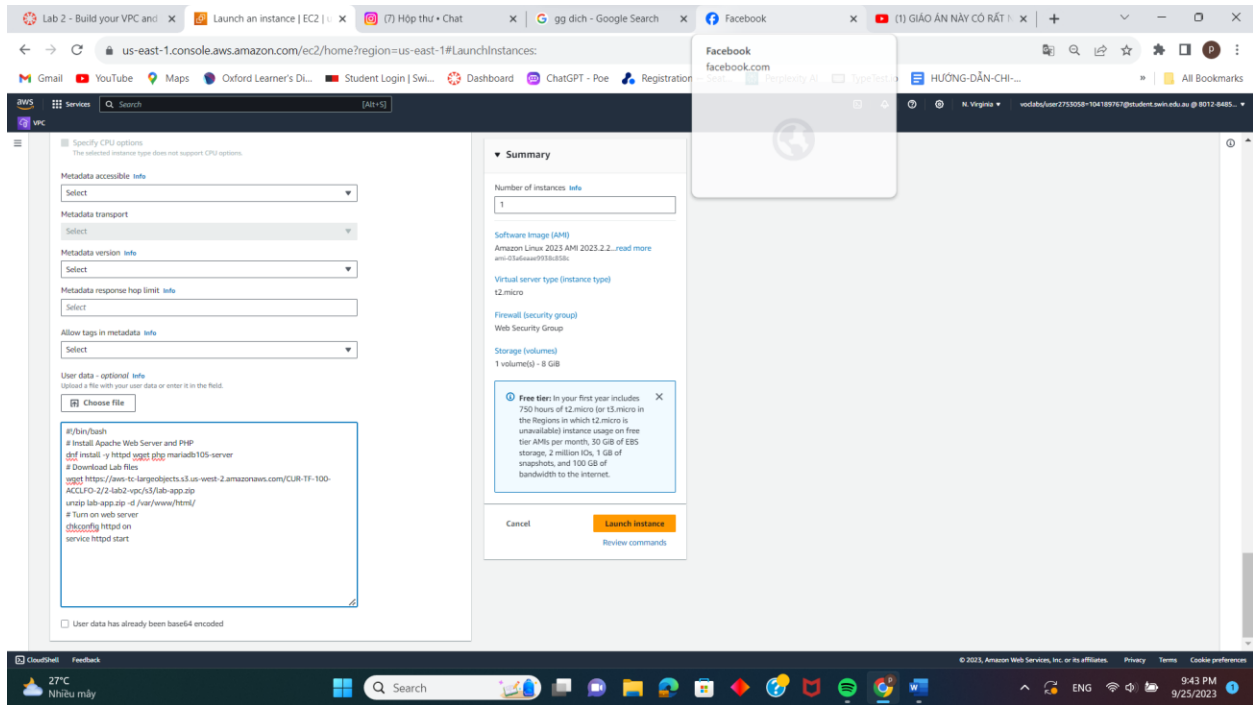
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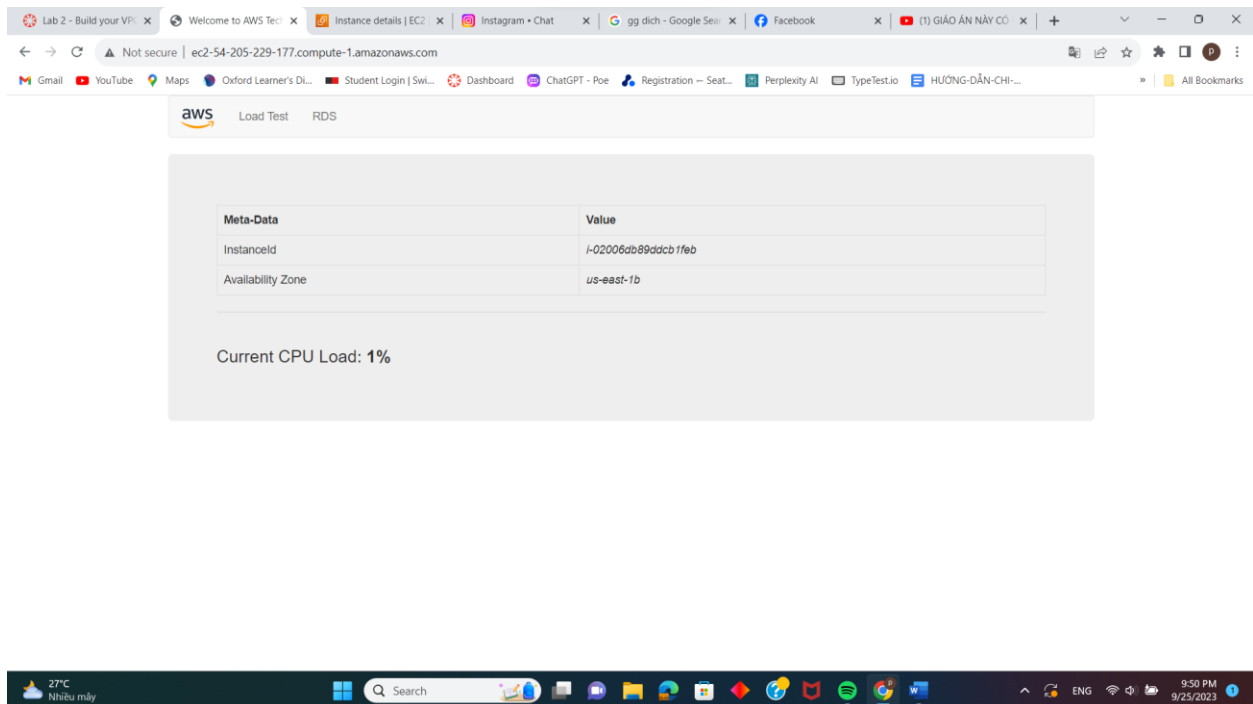
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ami-0346eae9933b055dc

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These photos above is the steps I create an EC2 instance to launch the web server.



Finally, I can connect to the Web Server.