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**Université de Tunis El Manar**

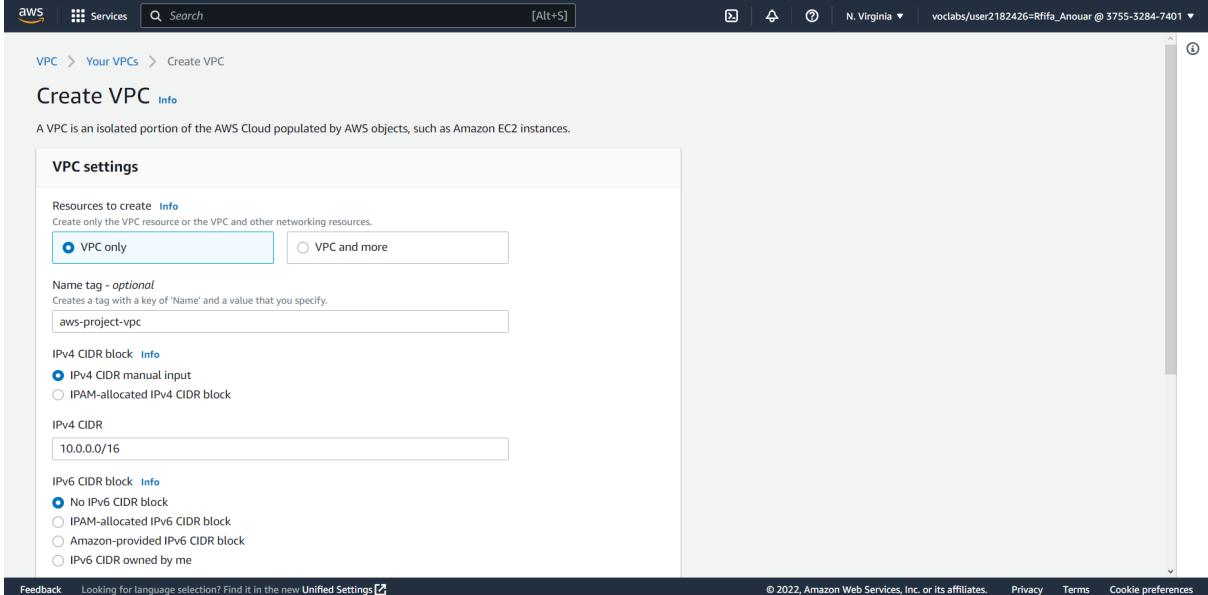
**Faculté des Sciences de Tunis**

# Rapport projet AWS

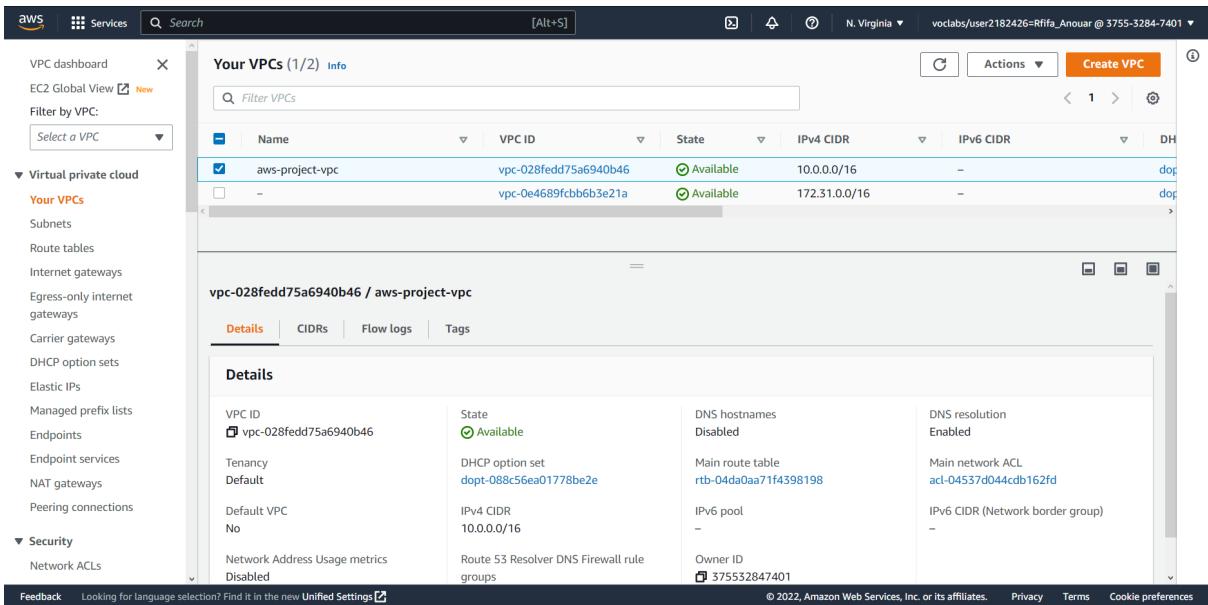
**Réalisation d'une architecture**

Réalisé par : **Rfifa Anouar**

## ● Création d'un VPC



The screenshot shows the 'Create VPC' page in the AWS Management Console. Under 'VPC settings', the 'Resources to create' section has 'VPC only' selected. The 'Name tag - optional' field contains 'aws-project-vpc'. The 'IPv4 CIDR block' section has 'IPv4 CIDR manual input' selected, with '10.0.0.0/16' entered. The 'IPv6 CIDR block' section has 'No IPv6 CIDR block' selected. At the bottom, there's a 'Feedback' link and copyright information.

The screenshot shows the 'Your VPCs' page. It lists two VPCs: 'aws-project-vpc' (ID: vpc-028fedd75a6940b46) and another unnamed VPC (ID: vpc-0e4689fcbb6b3e21a). The 'aws-project-vpc' row is selected. Below the table, the 'vpc-028fedd75a6940b46 / aws-project-vpc' details page is shown, featuring tabs for 'Details', 'CIDRs', 'Flow logs', and 'Tags'. The 'Details' tab displays various VPC configurations. A 'Feedback' link and copyright information are at the bottom.

## ● Création d'Internet Gateway

The screenshot shows the 'Create internet gateway' page in the AWS VPC service. At the top, there's a navigation bar with the AWS logo, 'Services' dropdown, and a search bar. Below the navigation, the breadcrumb path is 'VPC > Internet gateways > Create internet gateway'. The main title is 'Create internet gateway' with an 'Info' link. A descriptive text explains that an internet gateway is a virtual router that connects a VPC to the internet. The 'Internet gateway settings' section contains a 'Name tag' field where 'aws-project-igw' is entered. The 'Tags - optional' section shows a single tag 'Name: aws-project-igw'. At the bottom, there are 'Cancel' and 'Create Internet gateway' buttons.

The screenshot shows the 'Attach to VPC' page for the previously created internet gateway. The breadcrumb path is 'VPC > Internet gateways > Attach to VPC (igw-01f39820e3cfb17b5)'. The main title is 'Attach to VPC (igw-01f39820e3cfb17b5)' with an 'Info' link. The 'VPC' section instructs to attach the gateway to a VPC to enable communication with the internet. The 'Available VPCs' section lists a single VPC 'vpc-028fedd75a6940b46'. At the bottom, there are 'Cancel' and 'Attach Internet gateway' buttons.

The screenshot shows the AWS VPC dashboard with the 'Internet gateways' section selected. A success message at the top indicates that an internet gateway has been successfully attached to a VPC. The main content area displays the details for an internet gateway named 'igw-01f39820e3cfb17b5' associated with 'aws-project-igw'. The 'Details' tab is active, showing the Internet gateway ID, state (Attached), VPC ID, and owner. Below this is a 'Tags' section with one tag named 'Name' with the value 'aws-project-igw'. The left sidebar lists various VPC components like Your VPCs, Subnets, Route tables, and Internet gateways.

## ● Création des subnets

The screenshot shows the AWS VPC subnet creation interface. It is creating two subnets: 'Subnet 1 of 2' and 'Subnet 2 of 2'. For Subnet 1, the 'Subnet name' is 'pub-sub-1', 'Availability Zone' is 'US East (N. Virginia) / us-east-1a', and the 'IPv4 CIDR block' is '10.0.0.0/24'. For Subnet 2, the 'Subnet name' is 'pub-sub-2', 'Availability Zone' is 'US East (N. Virginia) / us-east-1b', and the 'IPv4 CIDR block' is '10.0.1.0/24'. Both subnets are currently empty. The left sidebar shows the 'Your VPCs' section.

Screenshot of the AWS VPC Subnet settings page for subnet ID subnet-05acf4a7dae31f8f4.

**Subnet**

Subnet ID subnet-05acf4a7dae31f8f4	Name pub-sub-1
---------------------------------------	-------------------

**Auto-assign IP settings** [Info](#)  
Enable the auto-assign IP settings to automatically request a public IPv4 or IPv6 address for a new network interface in this subnet.

Enable auto-assign public IPv4 address [Info](#)

Enable auto-assign customer-owned IPv4 address [Info](#)  
Option disabled because no customer owned pools found.

**Resource-based name (RBN) settings** [Info](#)  
Specify the hostname type for EC2 instances in this subnet and optional RBN DNS query settings.

Enable resource name DNS A record on launch [Info](#)

Enable resource name DNS AAAA record on launch [Info](#)

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Screenshot of the AWS VPC Subnet settings page for subnet ID subnet-097e8e38cdc7ad1ed.

**Subnet**

Subnet ID subnet-097e8e38cdc7ad1ed	Name pub-sub-2
---------------------------------------	-------------------

**Auto-assign IP settings** [Info](#)  
Enable the auto-assign IP settings to automatically request a public IPv4 or IPv6 address for a new network interface in this subnet.

Enable auto-assign public IPv4 address [Info](#)

Enable auto-assign customer-owned IPv4 address [Info](#)  
Option disabled because no customer owned pools found.

**Resource-based name (RBN) settings** [Info](#)  
Specify the hostname type for EC2 instances in this subnet and optional RBN DNS query settings.

Enable resource name DNS A record on launch [Info](#)

Enable resource name DNS AAAA record on launch [Info](#)

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Screenshot of the AWS VPC Subnet creation interface. The page shows two subnets being configured:

- Subnet 1 of 2:**
  - Subnet name:** priv-sub-1
  - Availability Zone:** US East (N. Virginia) / us-east-1a
  - IPv4 CIDR block:** 10.0.2.0/23
- Subnet 2 of 2:**
  - Subnet name:** priv-sub-2
  - Availability Zone:** US East (N. Virginia) / us-east-1b
  - IPv4 CIDR block:** 10.0.4.0/23

Feedback message: Looking for language selection? Find it in the new [Unified Settings](#).

## ● Configuration de table de routage de vpc L'ajout d'internet gateway

Screenshot of the AWS Route Tables interface showing the "Edit routes" section.

Route table details:

- VPC: > Route tables > rtb-04da0aa71f4398198 > Edit routes

Edit routes table:

Destination	Target	Status	Propagated
10.0.0.0/16	Q local X Active	No	
Q 0.0.0.0/0 X	Q igw-01f39820e3cfb17b5 X -	No	

Buttons: Add route, Cancel, Preview, Save changes.

Feedback message: Looking for language selection? Find it in the new [Unified Settings](#).

# Création de 4 tables de routage

1 table pour chaque subnet

The screenshot shows the 'Create route table' wizard in the AWS VPC service. The 'Route table settings' section has a name 'private-rt-1' and is associated with VPC 'vpc-028fedd75a6940b46 (aws-project-vpc)'. The 'Tags' section contains one tag: 'Name' with value 'private-rt-1'. A feedback message at the bottom left says 'Looking for language selection? Find it in the new Unified Settings'.

The screenshot shows the 'Create route table' wizard in the AWS VPC service. The 'Route table settings' section has a name 'private-rt-2' and is associated with VPC 'vpc-028fedd75a6940b46 (aws-project-vpc)'. The 'Tags' section contains one tag: 'Name' with value 'private-rt-2'. A feedback message at the bottom left says 'Looking for language selection? Find it in the new Unified Settings'.

AWS Services Search [Alt+S] N. Virginia vocabs/user2182426=Rifaa\_Anouar @ 3755-3284-7401

VPC dashboard EC2 Global View New Filter by VPC: Select a 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 Endpoints Endpoint services NAT gateways Peering connections Security Network ACLs

**Route tables (6) Info**

Filter route tables

Name	Route table ID	Explicit subnet associations	Edge associations	Main	VPC
pub-rt-2	rtb-07101bd534e3c95c5	subnet-00efe99ea50ce5...	-	No	vpc-02ac422d6e00a28d4   aw...
-	rtb-005d2b4423f114df9	-	-	Yes	vpc-07fb7b01c8fb71a5
-	rtb-019d1192305c3ed56	-	-	Yes	vpc-02ac422d6e00a28d4   aw...
private-rt-2	rtb-0962205ebd53183d0	subnet-0a3da1cca97cc4...	-	No	vpc-02ac422d6e00a28d4   aw...
private-rt-1	rtb-0cba9590662c58da4	subnet-01823a929f911...	-	No	vpc-02ac422d6e00a28d4   aw...
pub-rt-1	rtb-09f1bf2d3102446c7	subnet-092328d184727...	-	No	vpc-02ac422d6e00a28d4   aw...

Select a route table

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VPC dashboard EC2 Global View New Filter by VPC: Select a 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 Endpoints Endpoint services NAT gateways Peering connections Security Network ACLs

**Route tables (1/6) Info**

Filter route tables

Name	Route table ID	Explicit subnet associations	Edge associations	Main	VPC
private-rt-2	rtb-0962205ebd53183d0	subnet-0a3da1cca97cc4...	-	No	vpc-02ac422d6e00a28d4   aw...
<input checked="" type="checkbox"/> pub-rt-1	rtb-09f1bf2d3102446c7	subnet-092328d184727...	-	No	vpc-02ac422d6e00a28d4   aw...
pub-rt-2	rtb-07101bd534e3c95c5	subnet-00efe99ea50ce5...	-	No	vpc-02ac422d6e00a28d4   aw...

**rtb-09f1bf2d3102446c7 / pub-rt-1**

Details Routes Subnet associations Edge associations Route propagation Tags

**Explicit subnet associations (1)**

Edit subnet associations

Subnet ID	IPv4 CIDR	IPv6 CIDR
subnet-092328d184727ffdd5 / public-sub-1	10.0.0.0/24	-

**Subnets without explicit associations (0)**

The following subnets have not been explicitly associated with any route tables and are therefore associated with the main route table:

Edit subnet associations

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## ● Création de 2 NATs Gateway

The screenshot shows the 'Create NAT gateway' configuration page. In the 'Name' field, 'nat-gw-pub-1' is entered. The 'Subnet' dropdown is set to 'subnet-05acf4a7dae31f8f4 (pub-sub-1)'. Under 'Connectivity type', the 'Public' radio button is selected. In the 'Elastic IP allocation ID' section, 'eipalloc-0af845ab810edef54' is listed, and the 'Allocate Elastic IP' button is visible. A link to 'Additional settings' is present at the bottom.

Name - optional  
Create a tag with a key of 'Name' and a value that you specify.  
  
The name can be up to 256 characters long.

Subnet  
Select a subnet in which to create the NAT gateway.

Connectivity type  
Select a connectivity type for the NAT gateway.  
 Public  
 Private

Elastic IP allocation ID [Info](#)  
Assign an Elastic IP address to the NAT gateway.

[► Additional settings](#)

The screenshot shows the 'Create NAT gateway' configuration page with a green header notification stating 'Elastic IP address 54.164.235.53 (eipalloc-092581d8f91936f5c) allocated.' The rest of the form fields and layout are identical to the first screenshot.

Name - optional  
Create a tag with a key of 'Name' and a value that you specify.  
  
The name can be up to 256 characters long.

Subnet  
Select a subnet in which to create the NAT gateway.

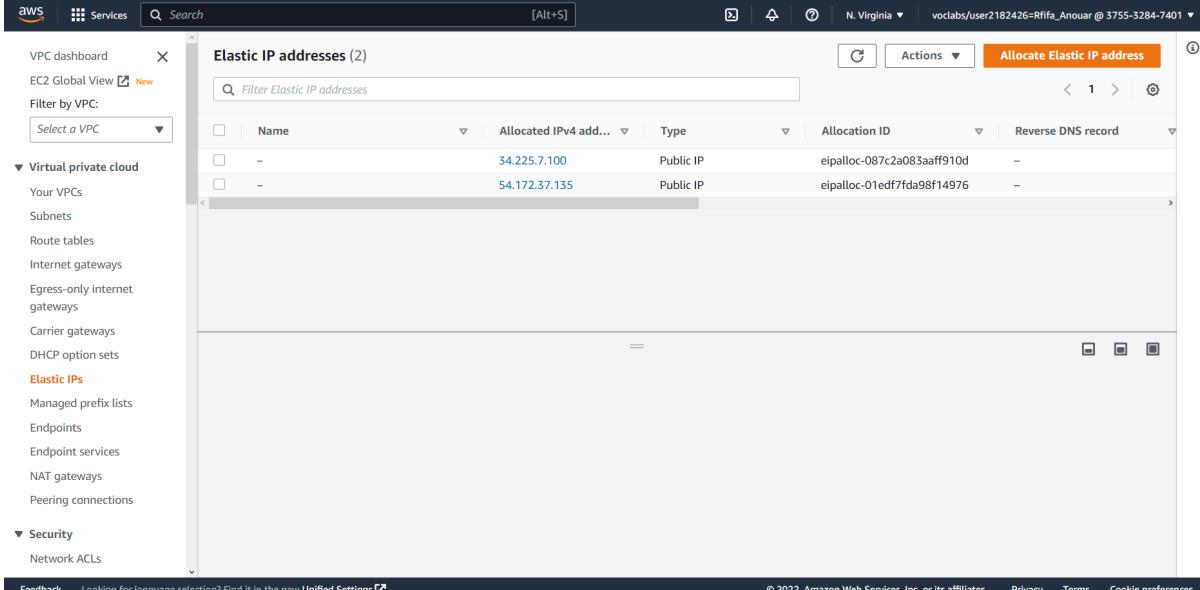
Connectivity type  
Select a connectivity type for the NAT gateway.  
 Public  
 Private

Elastic IP allocation ID [Info](#)  
Assign an Elastic IP address to the NAT gateway.

[► Additional settings](#)

## ● Ajout des nat gateway au table de routage

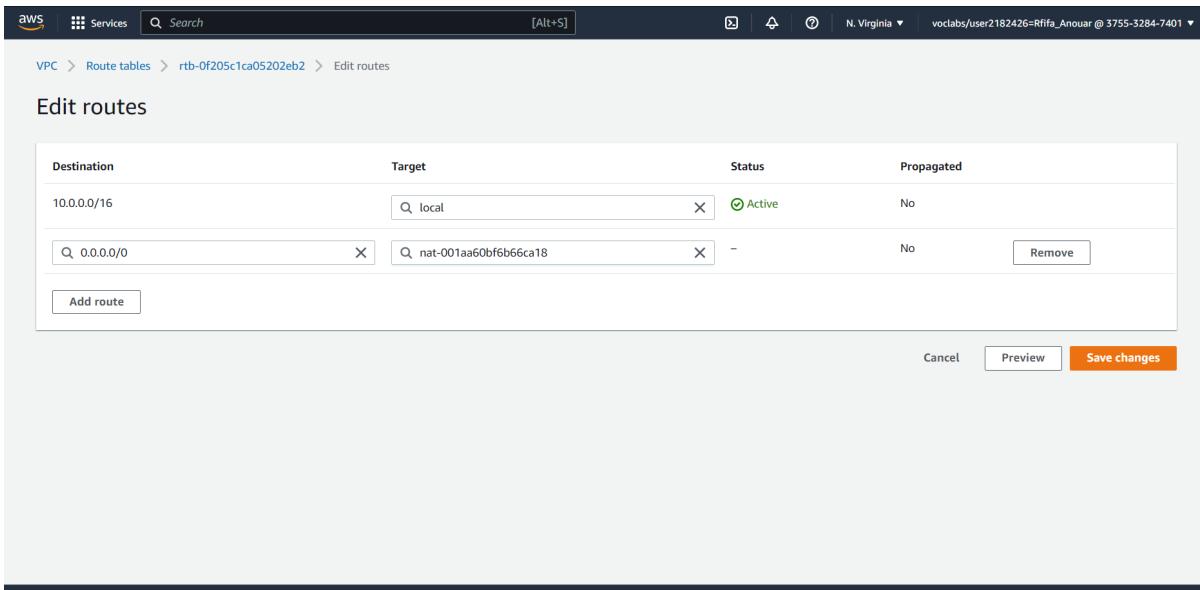
J'ai créé deux IPs élastiques pour les associées aux nat gateways



The screenshot shows the AWS Elastic IP addresses page. The left sidebar is expanded to show the 'Elastic IPs' section. The main area displays a table titled 'Elastic IP addresses (2)'. The table has columns for Name, Allocated IPv4 address, Type, Allocation ID, and Reverse DNS record. Two entries are listed:

Name	Allocated IPv4 address	Type	Allocation ID	Reverse DNS record
-	34.225.7.100	Public IP	eipalloc-087c2a083aaaff910d	-
-	54.172.37.135	Public IP	eipalloc-01edf7fdaf98f14976	-

L'ajout de Nat-gw-1 au private-rt-1



The screenshot shows the AWS Route tables page. The left sidebar shows the 'Route tables' section. The main area is titled 'Edit routes' for the route table 'rtb-0f205c1ca05202eb2'. The table lists existing routes:

Destination	Target	Status	Propagated
10.0.0.0/16	Q local	Active	No
Q 0.0.0.0/0	Q nat-001aa60bf6b66ca18	-	No

At the bottom, there is an 'Add route' button, a 'Cancel' button, a 'Preview' button, and a prominent 'Save changes' button.

## L'ajout de Nat-gw-2 au private-rt-2

The screenshot shows the AWS VPC Route Tables interface. The URL is [VPC > Route tables > rtb-0d42404a80d1faf84 > Edit routes](#). The page title is "Edit routes". A table lists routes:

Destination	Target	Status	Propagated
10.0.0.0/16	Q local	Active	No
Q 0.0.0.0/0	Q nat-00210598a0fa04a02	-	No

Buttons include "Add route", "Cancel", "Preview", and "Save changes".

## ● Création d'une base de données

The screenshot shows the AWS RDS Create DB Instance interface. The URL is [aws > Services > RDS > Create DB instance](#). The page title is "Create DB instance". It shows two options: "Standard create" (selected) and "Easy create".

**Engine options**

Engine type: [Info](#)

- Amazon Aurora
- MySQL
- MariaDB
- PostgreSQL
- Oracle
- Microsoft SQL Server

Engine Version: PostgreSQL 13.7-R1

Other fields include "DB Name", "DB Cluster Identifier", "Allocated Storage", "Storage Type", "Multi-AZ", "Performance Insights", "Log Shipping", "IAM Database Authentication", "TLS Encryption", and "Advanced settings".

**Availability and durability**

**Deployment options** [Info](#)  
The deployment options below are limited to those supported by the engine you selected above.

**Multi-AZ DB Cluster - new**  
Creates a DB cluster with a primary DB instance and two readable standby DB instances, with each DB instance in a different Availability Zone (AZ). Provides high availability, data redundancy and increases capacity to serve read workloads.

**Multi-AZ DB instance**  
Creates a primary DB instance and a standby DB instance in a different AZ. Provides high availability and data redundancy, but the standby DB instance doesn't support connections for read workloads.

**Single DB instance**  
Creates a single DB instance with no standby DB instances.

**Settings**

**DB instance identifier** [Info](#)  
Type a name for your DB instance. The name must be unique across all DB instances owned by your AWS account in the current AWS Region.

project-db

The DB instance identifier is case-insensitive, but is stored as all lowercase (as in "mydbinstance"). Constraints: 1 to 60 alphanumeric characters or hyphens. First character must be a letter. Can't contain two consecutive hyphens. Can't end with a hyphen.

**Credentials Settings**

**Master username** [Info](#)  
Type a login ID for the master user of your DB instance.

postgres

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**Amazon RDS** [X](#)

RDS > Databases

**Databases**

Consider creating a Blue/Green Deployment to minimize downtime during upgrades  
You may want to consider using Amazon RDS Blue/Green Deployments and minimize your downtime during upgrades. A Blue/Green Deployment provides a staging environment for changes to production databases. [RDS User Guide](#) [Aurora User Guide](#)

Region & AZ	Size	Status	CPU	Current activity	Maintenance	VPC	Multi-AZ
us-east-1a	db.t3.micro	Backing-up	7.06%	0.00 sessions	none	vpc-028fedd75a6940b46	Yes

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## ● Bastion machine

The screenshot shows the AWS EC2 Instances page. The instance summary for i-07bf68c0a9f046a93 (Bastion machine) is displayed. Key details include:

- Instance ID:** i-07bf68c0a9f046a93 (Bastion machine)
- Public IPv4 address:** 44.202.215.243
- Instance state:** Running
- Private IP4 address:** 10.0.0.208
- IP name:** ip-10-0-0-208.ec2.internal
- Answer private resource DNS name:** ipv4(A)
- Instance type:** t2.micro
- VPC ID:** vpc-028fedd75a6940b46 (aws-project-vpc)
- IAM Role:** -
- Subnet ID:** subnet-05acf4a7dae31f8f4 (pub-sub-1)
- Platform:** Amazon Linux (Inferred)
- AMI ID:** ami-0b5eaa76982371e91
- Monitoring:** disabled

The page also includes tabs for Details, Security, Networking, Storage, Status checks, Monitoring, and Tags.

## ● Création de load balancer classique

The screenshot shows the AWS EC2 Load Balancers page. A classic load balancer named mylb is being configured. The basic configuration includes:

- Name:** mylb
- \* DNS name:** mylb-1211319403.us-east-1.elb.amazonaws.com (A Record)
- Type:** Classic (Migrate Now)
- Scheme:** internet-facing
- Availability Zones:** subnet-00efe99ea50ce5d1c - us-east-1b, subnet-092328d184727ffdd5 - us-east-1a
- Creation time:** December 25, 2022 at 2:36:22 PM UTC+1
- Hosted zone:** Z3SSXDOTRQ7X7K
- Status:** 2 of 2 instances in service
- VPC:** vpc-02ac422d6e00a28d4

The Port Configuration section shows:

- Port Configuration:** 80 (HTTP) forwarding to 80 (HTTP)
- Stickiness:** Disabled
- Edit stickiness** button

The Security section shows:

- Source Security Group:**
  - sg-062ad8329c127fe6, default
    - default VPC security group
  - sg-0f6ce0e6efe5966bf, lb-sg
    - quick-create-1 created on Sunday, December 25, 2022 at 2:33:33 PM UTC+1

**EC2 | Load balancers | mylb**

Load balancer: mylb

Description Instances Health check Listeners Monitoring Tags Migration

Connection Draining: Enabled, 300 seconds (Edit)

Edit Instances

Instance ID	Name	Availability Zone	Status	Actions
i-0e54b9d0d25f5c546	my web app 2	us-east-1b	InService	Remove from Load Balancer
i-09916e49bb502c235	my web app 1	us-east-1a	InService	Remove from Load Balancer

Edit Availability Zones

Availability Zone	Subnet ID	Subnet CIDR	Instance Count	Healthy?	Actions
us-east-1b	subnet-00efe9ea50ce5d1c	10.0.1.0/24	1	Yes	Remove from Load Balancer
us-east-1a	subnet-092328d184727fd5	10.0.0.0/24	1	Yes	Remove from Load Balancer

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## ● Création d'un auto scaling group

**Instances (1/3) Info**

Find instance by attribute or tag (case-sensitive)

Instance state = running

Clear filters

Name	Instance ID	Instance state	Instance type	Status check	Ala
my web app 2	i-0e54b9d0d25f5c546	Running	t2.micro	2/2 checks passed	No
Bastion machine	i-0f0ff402f2eeefda6f	Running	t2.micro	2/2 checks passed	No
my web app 1	i-09916e49bb502c235	Running	t2.micro	2/2 checks passed	No

Actions ▲ Launch instances ▼

Connect  
View details  
Manage instance state  
Instance settings  
Networking  
Security  
Create image  
Create template from instance  
Image and templates  
Monitor and troubleshoot  
Launch more like this

**Instance: i-09916e49bb502c235 (my web app 1)**

Details Security Networking Storage Status checks Monitoring Tags

Instance summary info

Instance ID i-09916e49bb502c235 (my web app 1)	Public IPv4 address –	Private IPv4 addresses 10.0.3.96
IPv6 address –	Instance state Running	Public IPv4 DNS –
Hostname type IP name: ip-10-0-3-96.ec2.internal	Private IP DNS name (IPv4 only) ip-10-0-3-96.ec2.internal	Elastic IP addresses –

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**Create image Info**

An image (also referred to as an AMI) defines the programs and settings that are applied when you launch an EC2 instance. You can create an image from the configuration of an existing instance.

Instance ID  
i-09916e49bb502c235 (my web app 1)

Image name  
my-web-app-image

Maximum 127 characters. Can't be modified after creation.

Image description - optional  
Image description

Maximum 255 characters

No reboot  
 Enable

Instance volumes

Volume type	Device	Snapshot	Size	Volume type	IOPS	Throughput	Delete on termination	Encrypted
EBS	/dev/...	Create new snapshot fr...	8	EBS General Purpose S...	100		<input checked="" type="checkbox"/> Enable	<input type="checkbox"/> Enable

Add volume

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**Create launch template**

Creating a launch template allows you to create a saved instance configuration that can be reused, shared and launched at a later time. Templates can have multiple versions.

**Launch template name and description**

Launch template name - required  
my-web-app-launch-config

Must be unique to this account. Max 128 chars. No spaces or special characters like '&', '\*', '@'.

Template version description  
my-web-app-launch-config

Max 255 chars

Auto Scaling guidance [Info](#)

Select this if you intend to use this template with EC2 Auto Scaling

Provide guidance to help me set up a template that I can use with EC2 Auto Scaling

► Template tags  
► Source template

**Summary**

Software Image (AMI)  
my-web-app-image  
ami-04a8532aea9d4261a

Virtual server type (instance type)  
-

Firewall (security group)  
-

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

**Free tier:** In your first year includes 750 hours of t2.micro (or 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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

**Create launch template**

**Feedback** Looking for language selection? Find it in the new [Unified Settings](#)

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**Application and OS Images (Amazon Machine Image) - required [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 | **My AMIs** | Quick Start

Owned by me | Shared with me

Browse more AMIs  
Including AMIs from AWS, Marketplace and the Community

**Amazon Machine Image (AMI)**

my-web-app-image ami-04a8532aea9d4261a 2022-12-25T15:55:09.000Z	Virtualization: hvm	ENAs enabled: true	Root device type: ebs
---	---------------------	--------------------	-----------------------

Description

-

Architecture      AMI ID

x86\_64      ami-04a8532aea9d4261a

**Summary**

Software Image (AMI)  
my-web-app-image  
ami-04a8532aea9d4261a

Virtual server type (instance type)  
-

Firewall (security group)  
-

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

**Free tier:** In your first year includes 750 hours of t2.micro (or 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 IOs, 1 GB of snapshots, and 100 GB of bandwidth to the internet.

**Create launch template**

**Feedback** Looking for language selection? Find it in the new [Unified Settings](#)

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**Choose launch template or configuration** Info

Specify a launch template that contains settings common to all EC2 instances that are launched by this Auto Scaling group. If you currently use launch configurations, you might consider migrating to launch templates.

**Name**

Auto Scaling group name  
Enter a name to identify the group.

Must be unique to this account in the current Region and no more than 255 characters.

**Launch template** Info Switch to launch configuration

Launch template  
Choose a launch template that contains the instance-level settings, such as the Amazon Machine Image (AMI), instance type, key pair, and security groups.

Version

Description  
 Launch template

Instance type

**Feedback** Looking for language selection? Find it in the new [Unified Settings](#).

**Choose instance launch options**

Step 2 **Network** Info

For most applications, you can use multiple Availability Zones and let EC2 Auto Scaling balance your instances across the zones. The default VPC and default subnets are suitable for getting started quickly.

VPC  
Choose the VPC that defines the virtual network for your Auto Scaling group.

Availability Zones and subnets  
Define which Availability Zones and subnets your Auto Scaling group can use in the chosen VPC.

**Instance type requirements** Info

You can keep the same instance attributes or instance type from your launch template, or you can override them here.

**Override launch template**

**Feedback** Looking for language selection? Find it in the new [Unified Settings](#).

**Configure advanced options**

Step 2 **Load balancing - optional** Info

Use the options below to attach your Auto Scaling group to an existing load balancer, or to a new load balancer that you define.

No load balancer  
Traffic to your Auto Scaling group will not be fronted by a load balancer.

Attach to an existing load balancer  
Choose from your existing load balancers.

Attach to a new load balancer  
Quickly create a basic load balancer to attach to your Auto Scaling group.

**Attach to an existing load balancer**  
Select the load balancers that you want to attach to your Auto Scaling group.

Choose from your load balancer target groups  
This option allows you to attach Application, Network, or Gateway Load Balancers.

Choose from Classic Load Balancers

**Classic Load Balancers**

Select **Classic Load Balancers**

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EC2 > Auto Scaling groups > Create Auto Scaling group

Step 1 Choose launch template or configuration

Step 2 Choose instance launch options

Step 3 (optional) Configure advanced options

Step 4 (optional) Configure group size and scaling policies

Step 5 (optional) Add notifications

Step 6 (optional) Add tags

Step 7 Review

**Configure group size and scaling policies** Info

Set the desired, minimum, and maximum capacity of your Auto Scaling group. You can optionally add a scaling policy to dynamically scale the number of instances in the group.

**Group size - optional** Info

Specify the size of the Auto Scaling group by changing the desired capacity. You can also specify minimum and maximum capacity limits. Your desired capacity must be within the limit range.

Desired capacity: 2

Minimum capacity: 2

Maximum capacity: 4

**Scaling policies - optional**

Choose whether to use a scaling policy to dynamically resize your Auto Scaling group to meet changes in demand. Info

Target tracking scaling policy  
Choose a desired outcome and leave it to the scaling policy to add and remove capacity as needed to achieve that outcome.

None

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Step 7 Review

**Scaling policies - optional**

Choose whether to use a scaling policy to dynamically resize your Auto Scaling group to meet changes in demand. Info

Target tracking scaling policy  
Choose a desired outcome and leave it to the scaling policy to add and remove capacity as needed to achieve that outcome.

None

Scaling policy name: Target Tracking Policy

Metric type: Average CPU utilization

Target value: 65

Instances need: 300 seconds warm up before including in metric

Disable scale in to create only a scale-out policy

**Instance scale-in protection - optional**

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① Predictive scaling policy now supports custom metrics, which also allows you to retain metrics across Blue/Green deployments. Learn more

② my-web-app-auto-sc-grp, 1 Scaling policy created successfully

EC2 > Auto Scaling groups

**Auto Scaling groups (1)** Info

Edit  Delete  Create an Auto Scaling group

Search your Auto Scaling groups

Name	Launch template/configuration	Instances	Status	Desired capacity	Min	Max	Avg...
my-web-app-auto-sc-grp	my-web-app-launch-config   Version Defa	0	Updating capacity...	2	2	4	us-e...

0 Auto Scaling groups selected

Select an Auto Scaling group

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# Le load balancer après la création d'auto scaling group

The screenshot shows the AWS EC2 Load Balancers console. The main view displays the configuration for a load balancer named "mylb". The "Basic Configuration" section includes details like Name (mylb), DNS name (mylb-1211319403.us-east-1.elb.amazonaws.com), Type (Classic), Scheme (Internet-facing), and Availability Zones (us-east-1b, us-east-1a). The "Port Configuration" section shows port 80 (HTTP) forwarding to 80 (HTTP) with disabled stickiness. The "Security" section lists the Source Security Group as "sg-062ad8329c127f7e6, default". The navigation sidebar on the left provides access to various EC2 services.

The screenshot shows the AWS EC2 Load Balancers console. The "Instances" section lists four instances: "my web app 2", "my web app 3", "my web app 4", and "my web app 1", all in the "InService" state. The "Edit Instances" button is visible. The "Edit Availability Zones" button is also present. The "Availability Zones" section shows two zones: "us-east-1b" and "us-east-1a", each with two healthy instances. The "Connection Draining" status is set to "Enabled, 300 seconds". The navigation sidebar on the left remains the same as the previous screenshot.

## Démonstration de l'application :

Cliquons sur Add

The screenshot shows the application's main interface. At the top, there is a dark navigation bar with four items: "Home", "Add", "Update", and "Delete". Below the navigation bar, the title "AWS project" is displayed in bold. Underneath the title, the text "Hello from EC2 number 1" is shown. A section titled "All Records" contains a table header row with columns labeled "Id", "Name", "Address", "Phone", and "Action".

The screenshot shows the "Add New Record" form. At the top, there is a dark navigation bar with four items: "Home", "Add", "Update", and "Delete". Below the navigation bar, the title "AWS project" is displayed in bold. Underneath the title, the text "Hello from EC2 number 1" is shown. The "Add New Record" form consists of three input fields: "Name" (containing "Jon Doe"), "Address" (containing "Australia"), and "Phone" (containing "98654325"). At the bottom of the form is a large green button labeled "Save".

Home Add Update Delete

## AWS project

Hello from EC2 number 2



All Records

Id	Name	Address	Phone	Action
1	Jon Doe	Australia	98654325	<a href="#">Edit</a> <a href="#">Delete</a>

Home Add Update Delete

## AWS project

Hello from EC2 number 1

All Records

Id	Name	Address	Phone	Action
2	frghj	rty	12345678	<a href="#">Edit</a> <a href="#">Delete</a>

La modification s'effectue par 2 méthodes soit par clique sur edit dans le tableau , ou sur Update dans la navigation.

Home Add Update Delete

## AWS project

Hello from EC2 number 2

### Edit Record

Id

2

Show

Home Add Update Delete

### Edit Record

Id

Show

Name

Sami

Address

Tunisie

Phone

98765432

Update

Home Add Update Delete

## AWS project

Hello from EC2 number 1

### All Records

Id	Name	Address	Phone	Action
2	Sami	Tunisie	98765432	Edit Delete

Maintenant , on efface Sami de notre base de données , de même il existe deux méthodes pour la suppression .

Home Add Update Delete

**AWS project**

**Hello from EC2 number 2**

Delete Record

Id  
2

Delete

Home Add Update Delete

**AWS project**

**Hello from EC2 number 1**

All Records

Id	Name	Address	Phone	Action
----	------	---------	-------	--------