

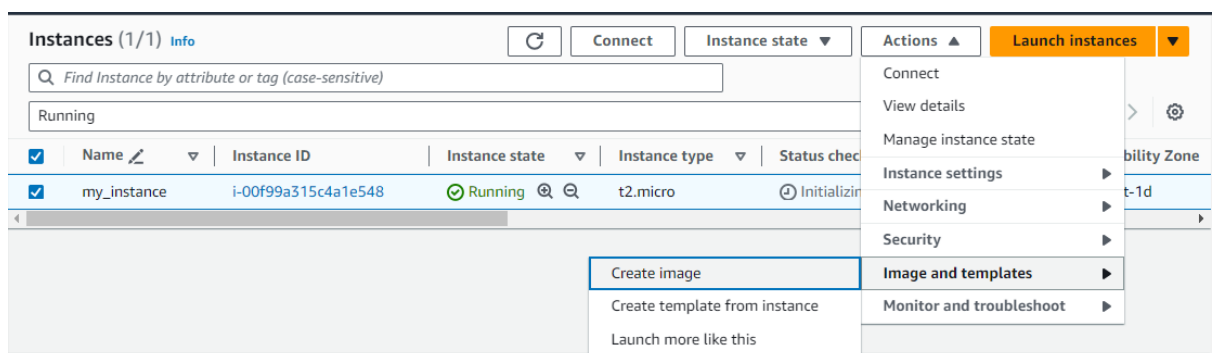
# Creating Ami

(Note: we create new Ami with the help of existing instance.)

In Amazon Web Services (AWS), an AMI stands for Amazon Machine Image. It is a pre-configured virtual machine image that contains the necessary information to launch an instance, which is a virtual server in the cloud. An AMI includes an operating system, application server, and applications, along with any additional configurations required to run the desired software.

In simple word Ami means backup of existing Instance which will also help to create the new instance next time.

1. **Select the instance** which you want to create the Ami. Click on **Action** and click on **create image** option.



2. Give name and description as per your choice

A screenshot of the 'Create image' page in the AWS Management Console. The breadcrumb trail at the top reads 'EC2 > Instances > i-00f99a315c4a1e548 > Create image'. The page title is 'Create image' with an 'Info' link. Below the title, a message states: '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 confi'. The form contains two main sections: 'Instance ID' with a dropdown showing 'i-00f99a315c4a1e548 (my\_instance)', and 'Image name' with a text input field containing 'my\_new\_ami'. Below the 'Image name' field, a note says 'Maximum 127 characters. Can't be modified after creation.' The second section is 'Image description - optional' with a text input field containing 'Image description'. Below this field, a note says 'Maximum 255 characters'.

3. Scroll down and click on create image...

4. New Ami is successfully created  
(Ami stores the configuration or information about the instance)

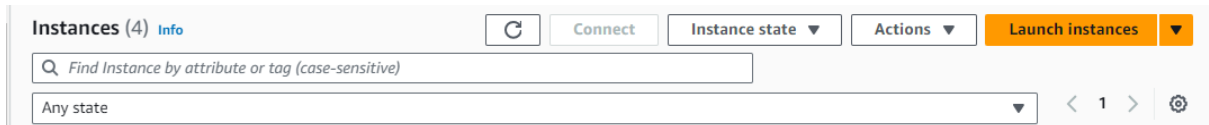
Amazon Machine Images (AMIs) (1/1) Info					
	Recycle Bin	EC2 Image Builder	Actions ▾	Launch instance from AMI	
Owned by me ▾	<input type="text" value="Find AMI by attribute or tag"/>				< 1 > ⚙
<input checked="" type="checkbox"/>	Name	AMI name	AMI ID	Source	Owner
<input checked="" type="checkbox"/>		my_new_ami	ami-007dd355e04e80f5b	412832919872/my_new_ami	41283291

5. Snapshot of the image is also created  
(Snapshot is an actual backup of the volume or storage)

Snapshots (1/1) Info						
	Recycle Bin	Actions ▾	Create snapshot			
Owned by me ▾	<input type="text" value="Search"/>					< 1 > ⚙
<input checked="" type="checkbox"/>	Name	Snapshot ID	Volume size	Description	Storage tier	Snapshot status
<input checked="" type="checkbox"/>	-	snap-0a8fad3d85464bf9f	8 GiB	Created by CreateImage(i-...	Standard	✔ Completed

## Creating Instance using Ami :-

1. Click on launch instance



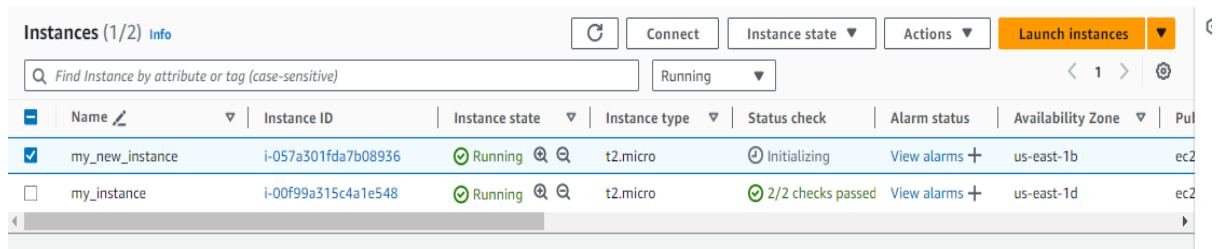
2. Give name as per your choice

This screenshot shows the 'Launch an instance' wizard in the AWS Management Console. The title 'Launch an instance' is followed by an 'Info' link. Below the title is a brief description: 'Amazon EC2 allows you to create virtual machines, or instances, that run on the AWS Cloud. Quickly get started by following the simple steps below.' The main section is titled 'Name and tags' with an 'Info' link. It contains a text input field for 'Name' with the value 'my\_new\_instance' and a button labeled 'Add additional tags'.

3. Select your own Ami

This screenshot shows the 'Application and OS Images (Amazon Machine Image)' selection screen. The title is followed by an 'Info' link. Below the title is a paragraph explaining that an AMI is a template containing software configuration. A search bar is provided with the placeholder text 'Search our full catalog including 1000s of application and OS images'. Below the search bar are three tabs: 'Recents', 'My AMIs' (which is selected and highlighted with a blue border), and 'Quick Start'. Under the 'My AMIs' tab, there are two filter buttons: 'Owned by me' (selected with a blue circle) and 'Shared with me'. To the right of these filters is a section titled 'Browse more AMIs' with a magnifying glass icon and text stating 'Including AMIs from AWS, Marketplace and the Community'. At the bottom, there is a table of available AMIs. The first entry is 'my\_new\_ami' with ID 'ami-007dd355e04e80f5b', creation time '2024-02-29T06:55:06.000Z', and details 'Virtualization: hvm', 'ENA enabled: true', and 'Root device type: ebs'. A dropdown arrow is visible on the right side of the table.

4. Select key value pairs and click on **Create instance**
5. Select newly created instance and click on **connect**



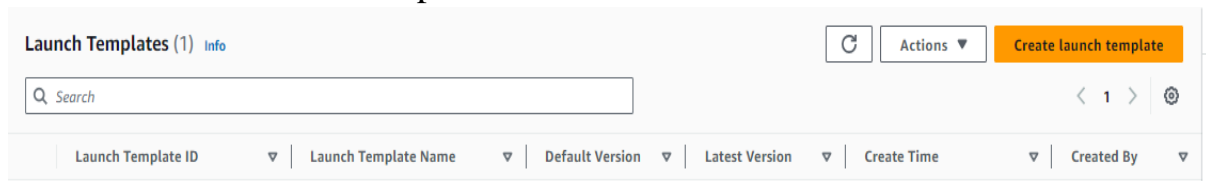
	Name	Instance ID	Instance state	Instance type	Status check	Alarm status	Availability Zone	Public IP
<input checked="" type="checkbox"/>	my_new_instance	i-057a301fda7b08936	Running	t2.micro	Initializing	View alarms +	us-east-1b	ec2
<input type="checkbox"/>	my_instance	i-00f99a315c4a1e548	Running	t2.micro	2/2 checks passed	View alarms +	us-east-1d	ec2

6. We can see that whatever configuration are done in **first instance** is copied in **newly created instance**.(in this case we created 10 directories)

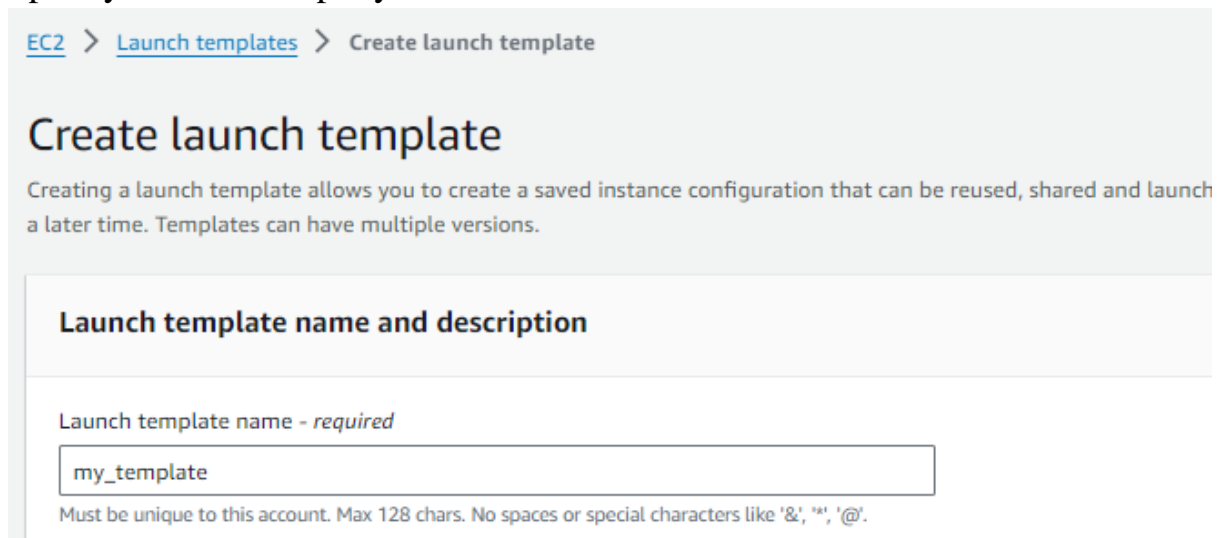
```
[root@ip-172-31-32-238 ec2-user]# ls
directory1 directory10 directory2 directory3 directory4 directory5 directory6 directory7 directory8 directory9
[root@ip-172-31-32-238 ec2-user]#
```

# Creating Launch Templates:-

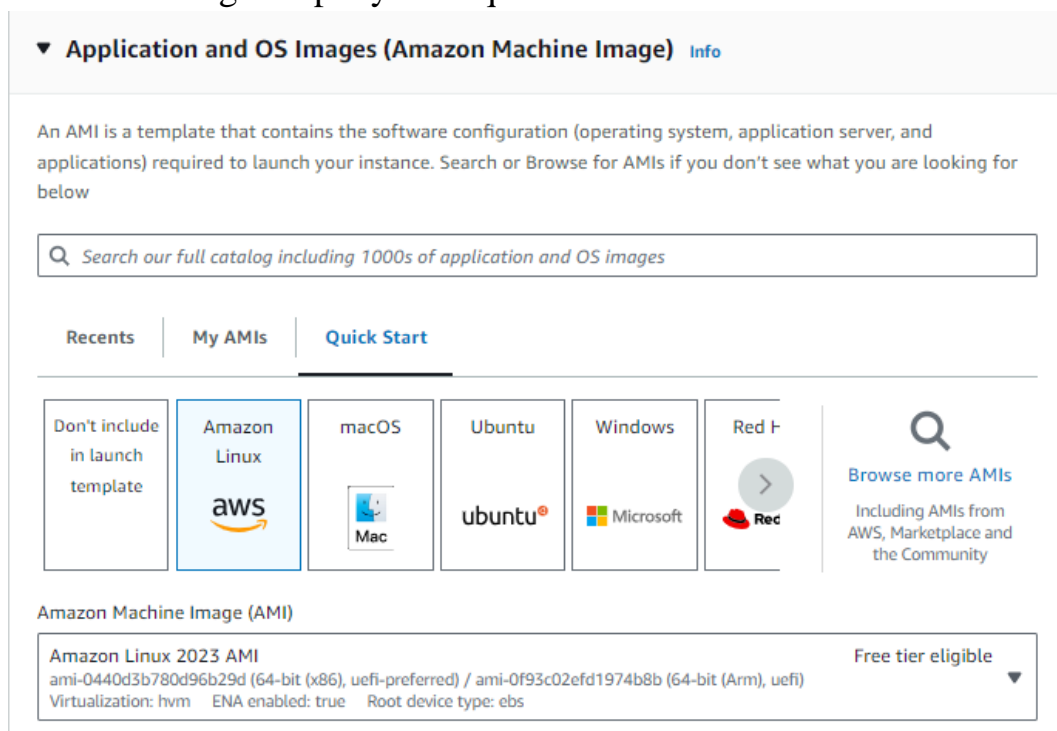
1. Click on create launch template



2. Specify the name as per your choice



3. Select the image as per your requirement




#### 4. Select the key value pair

**▼ 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

ssh\_access ▼



 [Create new key pair](#)

#### 5. Select security group as per your requirement

**▼ Network settings** [Info](#)

**Subnet** [Info](#)

Don't include in launch template ▼

 [Create new subnet](#) 

When you specify a subnet, a network interface is automatically added to your template.

**Firewall (security groups)** [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.


☒ Select existing security group


☐ Create security group

**Security groups** [Info](#)

Select security groups ▼

launch-wizard-10 sg-0b80e7513620792b6 ✕  
VPC: vpc-01a4a30d4e2c789b7


 [Compare security group rules](#)

 [Advanced network configuration](#)

#### 6. Select EBS volume as per your requirement

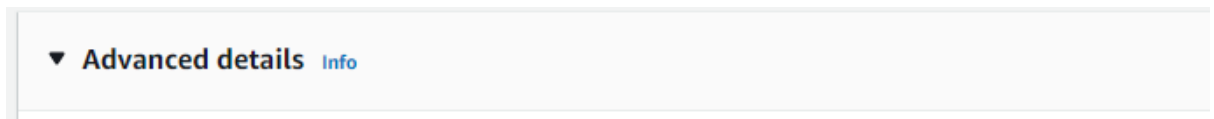
**▼ Storage (volumes)** [Info](#)

**EBS Volumes** [Hide details](#)

 Volume 1 (AMI Root) (8 GiB, EBS, General purpose SSD (gp3))  
AMI Volumes are not included in the template unless modified

[Add new volume](#)

7. Click on advance details and scroll at the end

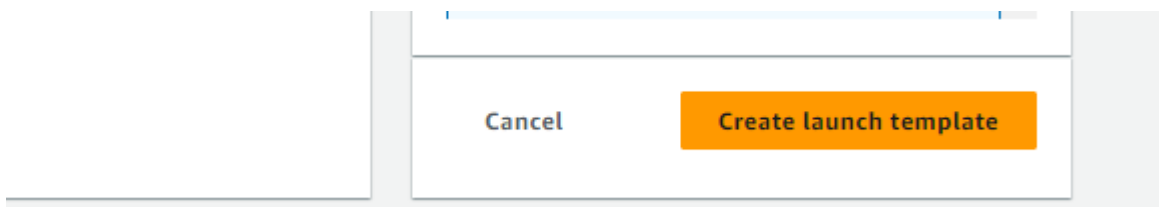


8. Add this script in user data

```
#!/bin/bash

sudo -i
yum install httpd -y
systemctl start httpd
systemctl enable httpd
echo "this is my website" >> /var/www/html/index.html
|
```

9. Click on create launch template

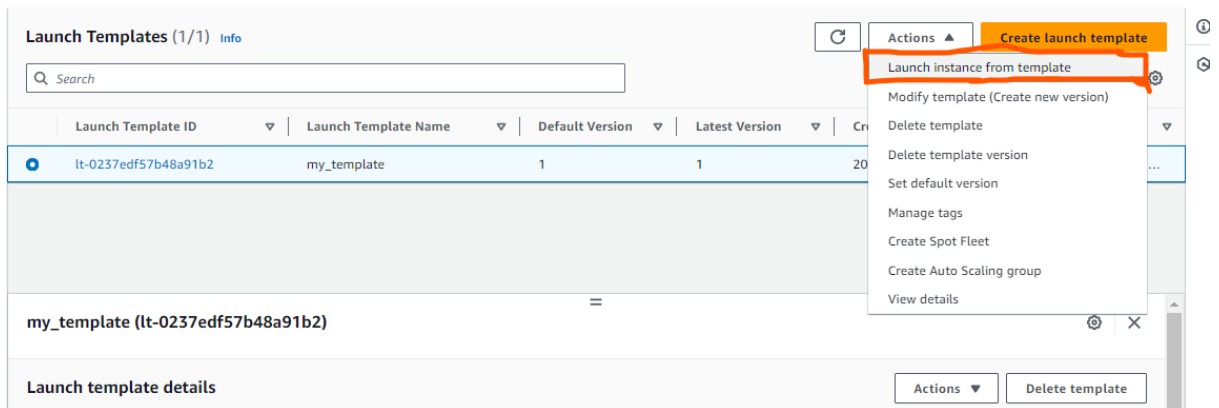


10. Template created successfully

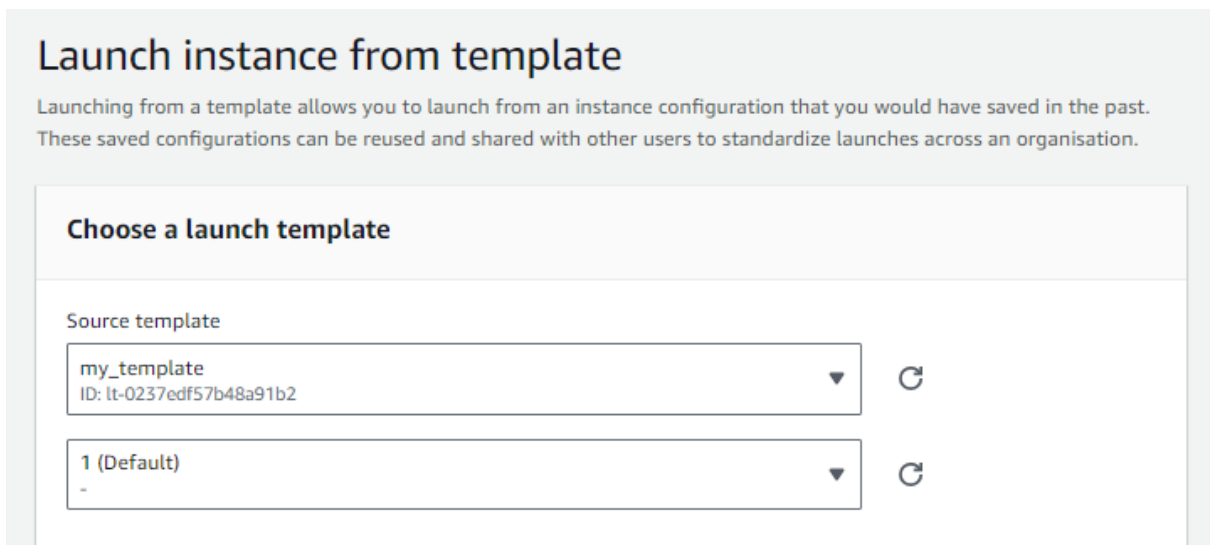
Launch Templates (1) <a href="#">Info</a>							<a href="#">Refresh</a>	Actions <a href="#">▼</a>	Create launch template
<input type="text" value="Search"/>									
<div>&lt; 1 &gt; <a href="#">⌂</a></div>									
	Launch Template ID <a href="#">▼</a>	Launch Template Name <a href="#">▼</a>	Default Version <a href="#">▼</a>	Latest Version <a href="#">▼</a>	Create Time <a href="#">▼</a>	Created By <a href="#">▼</a>			
<input type="radio"/>	lt-0237edf57b48a91b2	my_template	1	1	2024-02-29T09:06:15.000Z	arn:aws:iam::41...			

## Launching Instance using template:-

1. Select the template and click on **actions** and select **launch instance from template** option.



2. Choose the template





### 3. Do modification as per your requirement and click on **Launch Instance**

▼ **Resource tags** [Info](#)

Currently no tags are specified and therefore the instance will launch with the default tag settings. Edit your tags if you would like to override the default settings.

[Add new tag](#)

You can add up to 50 more tags.

► **Advanced details** [Info](#)

Firewall (security group)  
launch-wizard-10

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

Free tier: In your first year includes 750 hours of t2.micro

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

### 4. Instance created successfully in 2 steps

[EC2](#) > [Launch templates](#) > Launch instance from template

Success  
Successfully initiated launch of instance ([i-0ea71ab0ee203f077](#))

► Launch log

**Next steps**

**Get notified of estimated charges**  
[Create billing alerts](#) to get an email notification when estimated charges on your AWS bill exceed an amount you define.  
For example, you can create a billing alert for when you exceed the free usage tier.

**Connect to your instance**  
Your instance is launching. It might take a few minutes for it to reach the running state and to become ready for use. To monitor the instance's state, choose **View all instances**. When the instances reach the running state, you can [connect to them](#) from the Instances screen.

[View launch templates](#)

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