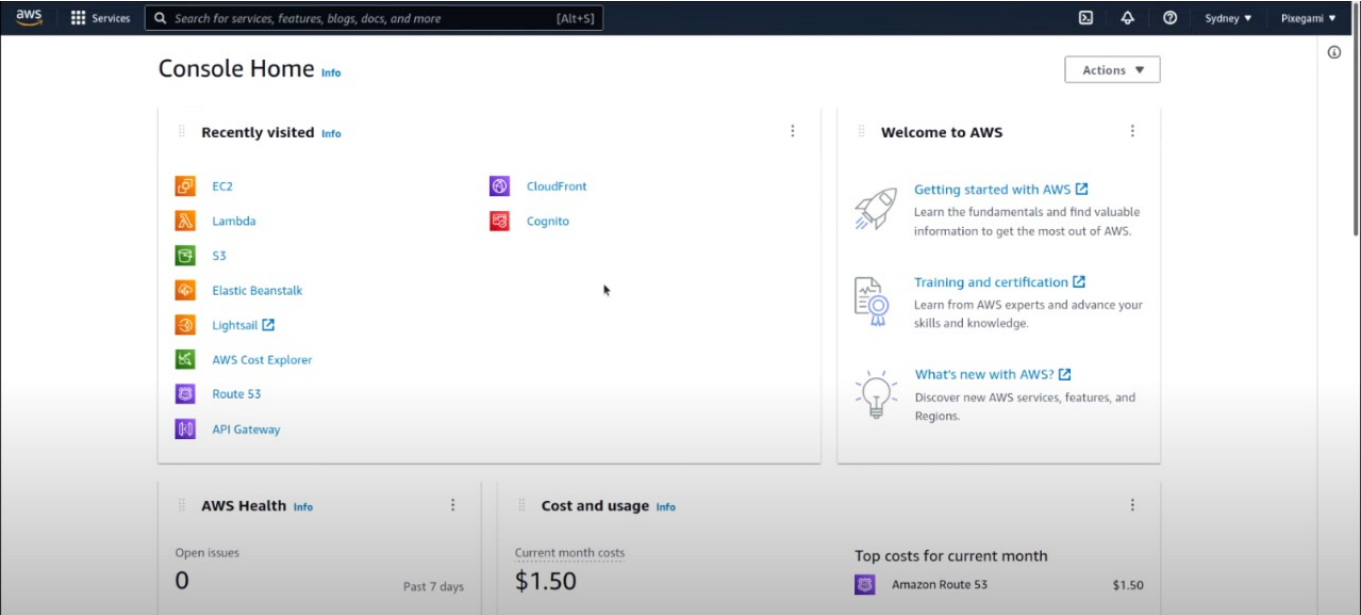


# Procedure to host Fast API on AWS.

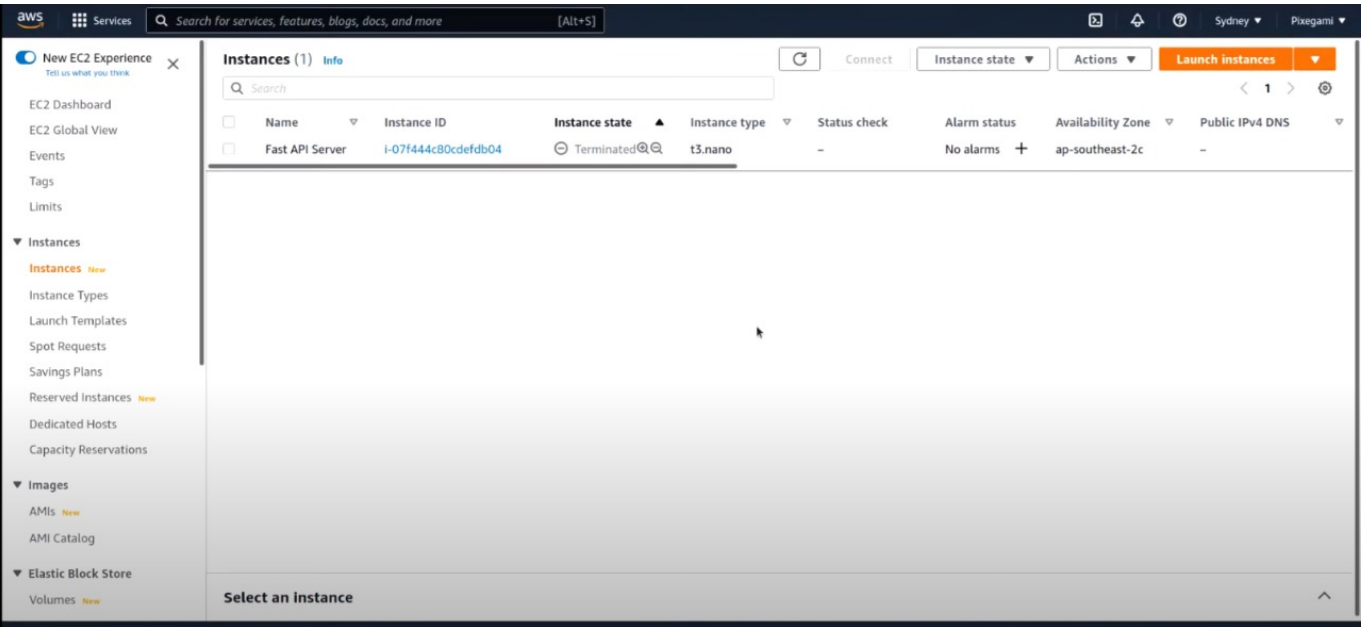
## Step 1

login to your AWS account and go to Console.



## Step 2

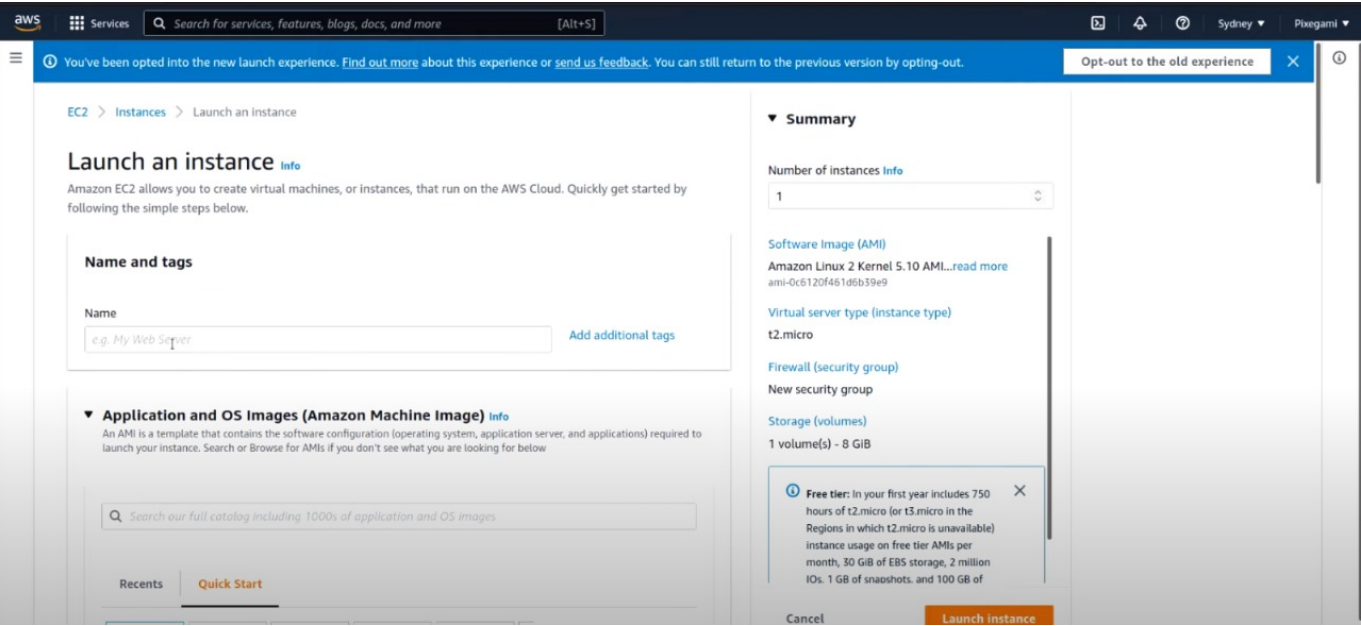
Go to ec2 dashboabrd and click on launch instance.



## Step 3

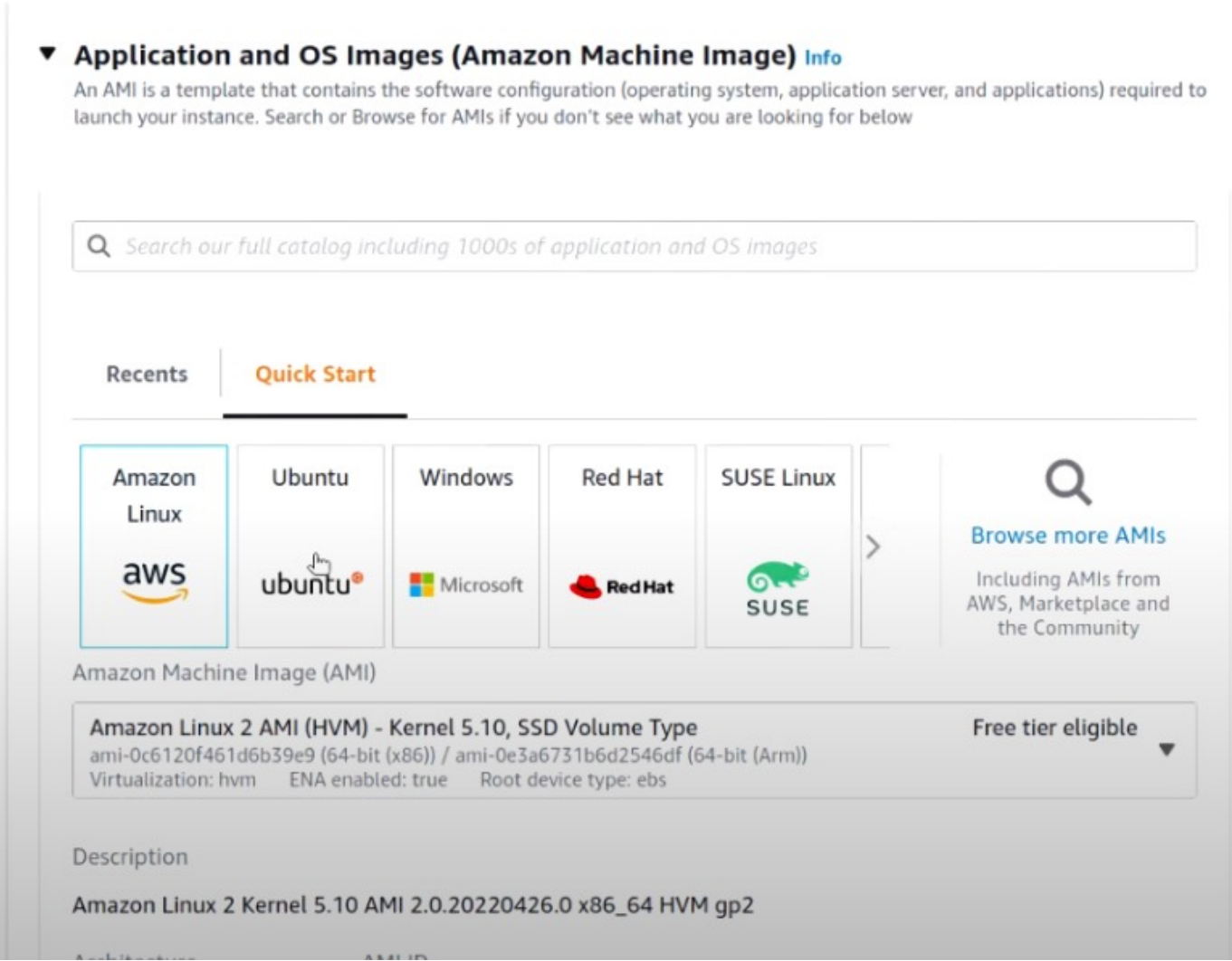
### Step 3.1

Create an instance



Step 3.2

Choose an application and Os images



Step 3.3

Choose an instance type

▼ Instance type Info

Instance type

t2.micro

Family: t2 1 vCPU 1 GiB Memory

On-Demand Linux pricing: 0.0146 USD per Hour

On-Demand Windows pricing: 0.0192 USD per Hour

Free tier eligible

[Compare instance types](#)

Step 3.4

Create a Key pair

Create key pair

×

Key pairs allow you to connect to your instance securely.

Enter the name of the key pair below. When prompted, store the private key in a secure and accessible location on your computer. **You will need it later to connect to your instance.** [Learn more](#)

Key pair name

fastapi

The name can include upto 255 ASCII characters. It can't include leading or trailing spaces.

Key pair type

☒ RSA

RSA encrypted private and public key pair

☐ ED25519

ED25519 encrypted private and public key pair (Not supported for Windows instances)

Private key file format

☒ .pem

For use with OpenSSH

☐ .ppk

For use with PuTTY

Cancel

Create key pair

Key appears in the form of .pem file. Download it and keep it safe. It will be used to connect to the instance.

Step 4

Network Setting

▼ Network settings

Edit

Network  
vpc-6d28d70b

Subnet  
No preference (Default subnet in any availability zone)

Auto-assign public IP  
Enable

Security groups (Firewall) [Info](#)  
We'll create a new security group called 'launch-wizard-2' with the following rules:

☒ Allow SSH traffic from

Helps you connect to your instance

Anywhere  
0.0.0.0/0

☒ Allow HTTPs traffic from the internet

To set up an endpoint, for example when creating a web server

☒ Allow HTTP traffic from the internet

To set up an endpoint, for example when creating a web server

⚠ Rules with source of 0.0.0.0/0 allow all IP addresses to access your instance. We recommend setting security group rules to allow access from known IP addresses only.

×

Launch the instance.

Click on the instance ID to see the details of the instance.

aws Services

Search for services, features, blogs, docs, and more

[Alt+S]

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Pixegami

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Reserved Instances

Dedicated Hosts

Capacity Reservations

▼ Images

AMIs

AMI Catalog

▼ Elastic Block Store

Volumes

EC2 > Instances > i-0097cd757ec595204

Instance summary for i-0097cd757ec595204 (Fast API Server)

Updated less than a minute ago

Connect

Instance state

Actions

Instance ID  
i-0097cd757ec595204 (Fast API Server)

Public IPv4 address  
13.239.43.144 | open address

Private IPv4 addresses  
172.31.38.171

IPv6 address  
-

Instance state  
Pending

Public IPv4 DNS  
ec2-13-239-43-144.ap-southeast-2.compute.amazonaws.com | open address

Hostname type  
IP name: ip-172-31-38-171.ap-southeast-2.compute.internal

Private IP DNS name (IPv4 only)  
ip-172-31-38-171.ap-southeast-2.compute.internal

Answer private resource DNS name  
IPv4 (A)

Instance type  
t2.micro

Elastic IP addresses  
-

Auto-assigned IP address  
13.239.43.144 [Public IP]

VPC ID  
vpc-6d28d70b

AWS Compute Optimizer finding  
Opt-in to AWS Compute Optimizer for recommendations. | Learn more

IAM Role  
-

Subnet ID  
subnet-b48050fc

Auto Scaling Group name  
-

Details

Security

Networking

Storage

Status checks

Monitoring

Tags

▼ Instance details

Step 5

Connect to the instance.

Connect to instance

Info

Connect to your instance i-0097cd757ec595204 (Fast API Server) using any of these options

EC2 Instance Connect

Session Manager

SSH client

EC2 Serial Console

Instance ID

i-0097cd757ec595204 (Fast API Server)

Public IP address

13.239.43.144

User name

Connect using a custom user name, or use the default user name ubuntu for the AMI used to launch the instance.

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

Cancel

Connect

Step 5.1

To connect to the instance via SSH client

### Connect to instance [Info](#)

Connect to your instance i-0097cd757ec595204 (Fast API Server) using any of these options


EC2 Instance Connect



Session Manager

**SSH client**


EC2 Serial Console


Instance ID

 i-0097cd757ec595204 (Fast API Server)

1. Open an SSH client.
2. Locate your private key file. The key used to launch this instance is fastapi\_key.pem
3. Run this command, if necessary, to ensure your key is not publicly viewable.  
 `chmod 400 fastapi_key.pem`
4. Connect to your instance using its Public DNS:  
 `ec2-13-239-43-144.ap-southeast-2.compute.amazonaws.com`

Example:

 `ssh -i "fastapi_key.pem" ubuntu@ec2-13-239-43-144.ap-southeast-2.compute.amazonaws.com`

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

Cancel

## Step 5.2

Go to the directory where the .pem file is stored and run the following command to change the mod 400

```
chmod 400 file_name.pem
```

## Step 5.3

Copy the SSH command and run it in the terminal.

Example:

```
 ssh -i "fastapi_key.pem" ubuntu@ec2-13-239-43-144.ap-southeast-2.compute.amazonaws.com
```

## Step 5.4

After succesful connection, Update the system.

Download depenedencies and install them.

```
Sudo apt install -y python3-pip nginx
```

Note: Nginx is used to host the Fast API on the server. It is a web server that can be used to host the Fast API. Load balancer can also be used to host the Fast API.

### Step 5.5

Create a Nginx configuration file.

```
sudo vim /etc/nginx/sites-enabled/fastapi_nginx
```

### Step 5.6

Create a server block in the configuration file.

```
server {  
    listen 80;  
    server_name _(public ipv4 of the instance);  
    location / {  
        proxy_pass http://127.0.0.1:8000;
```



```
server {  
    listen 80;  
    server_name 13.239.43.144;  
    location / {  
        proxy_pass http://127.0.0.1:8000;  
    }  
}
```

### Step 5.7

Restart the Nginx server.

```
sudo service nginx restart
```

### Step 5.8

Git clone your Repository to the instance machine.

```
ubuntu@ip-172-31-38-171:~$ git clone https://github.com/pixegami/fastapi-tutorial.git
```

### Step 5.9

Set up your project. install all dependencies and run the python server with the following command.



```
python3 -m uvicorn file_name:app --host
```

## References

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<https://education.github.com/>