

## Assignment No : 12

### Title : Deploy and run the project in AWS without using the port.

Step 1: Create an EC2 instance as created in Asg 11.

aws

Search

[Alt+S]

Asia Pacific (Mumbai)

EC2

Instances

Launch an instance

It seems like you may be new to launching instances in EC2. Take a walkthrough to learn about EC2, how to launch instances and about best practices

Do not show me this message again

Take a walkthrough

Launch an instance

Info

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.

Name and tags

Info

Name

inst1

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

macOS

Ubuntu

Windows

Red Hat

SUSE Linux

Debian

Browse more AMIs

Summary

Number of instances

Info

1

Software Image (AMI)

Amazon Linux 2023 AMI 2023.7.2...read more

ami-0f1dccc63b6b9a6438

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 of opening an AWS account, you get 750 hours per month of t2.micro instance usage (or t3.micro where

Application and OS Images (Amazon Machine Image)

Info

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Amazon Machine Image (AMI)

Ubuntu Server 24.04 LTS (HVM), SSD Volume Type

ami-0e35ddab05955cf57 (64-bit (x86)) / ami-0429d68a1cd41ca80 (64-bit (Arm))

Virtualization: hvm ENA enabled: true Root device type: ebs

Free tier eligible

Description

Ubuntu Server 24.04 LTS (HVM),EBS General Purpose (SSD) Volume Type. Support available from Canonical (http://www.ubuntu.com/cloud/services).

Canonical, Ubuntu, 24.04, amd64 noble image

Summary

Number of instances

Info

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Canonical, Ubuntu, 24.04, amd6...read more

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Cancel

Launch instance

Preview code

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

key

Create new key pair

Network settings

Info

Network

Info

vpc-0e2181ce3777a313c

Subnet

Info

No preference (Default subnet in any availability zone)

Auto-assign public IP

Info

Enable

Additional charges apply when outside of free tier allowance

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.

Create security group

Select existing security group

We'll create a new security group called 'launch-wizard-1' with the following rules:

Allow SSH traffic from

Helps you connect to your instance

Anywhere

Summary

Number of instances

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Canonical, Ubuntu, 24.04, amd6...read more

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Cancel

Launch instance

Preview code

aws

Search

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EC2

Instances

Launch an instance

Asia Pacific (Mumbai)

Network settings

Info

Edit

Network

Info

vpc-Oe2181ce3777a313c

Subnet

Info

No preference (Default subnet in any availability zone)

Auto-assign public IP

Info

Enable

Additional charges apply when outside of free tier allowance

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.

Create security group

Select existing security group

Common security groups

Info

Select security groups

secure51 sg-07c04a05d7396992f

VPC: vpc-Oe2181ce3777a313c

Compare security group rules

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

Configure storage

Info

Advanced

1x 8 GIB gp3 Root volume, 3000 IOPS, Not encrypted

Summary

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Canonical, Ubuntu, 24.04, amd6...read more

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Cancel

Launch instance

Preview code

aws

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EC2

Instances

Launch an instance

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Allow tags in metadata

Info

Select

User data - optional

Info

Upload a file with your user data or enter it in the field.

Choose file

```
#!/bin/bash
apt-get update
apt-get upgrade
apt-get install -y nginx
systemctl start nginx
systemctl enable nginx
apt-get install -y git
curl -sL https://deb.nodesource.com/setup_18.x | sudo -E bash -
apt-get install -y nodejs
git clone https://github.com/Prasunk8/Prasun_aws.git
cd Prasun_aws
npm install
node index.js
```

User data has already been base64 encoded

Summary

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EC2

Instances

Launch an instance

Asia Pacific (Mumbai)

Success

Successfully initiated launch of instance (i-01b4c2afa3036c9cf)

## Step 2: Connect the instance to the server.

aws

Search

[Alt+S]

EC2

Instances

i-01b4c2afa3036c9cf

Asia Pacific (Mumbai)

EC2

Dashboard

EC2 Global View

Events

Instances

Instance Types

Launch Templates

Spot Requests

Savings Plans

Reserved Instances

Dedicated Hosts

Capacity Reservations

Images

AMIs

AMI Catalog

Elastic Block Store

Volumes

Snapshots

Instance summary for i-01b4c2afa3036c9cf (inst1)

Info

Updated less than a minute ago

Instance ID

i-01b4c2afa3036c9cf

IPv6 address

-

Hostname type

IP name: ip-172-31-11-208.ap-south-1.compute.internal

Answer private resource DNS name

IPv4 (A)

Auto-assigned IP address

13.233.131.21 [Public IP]

IAM Role

-

IMDSv2

Required

Public IPv4 address

13.233.131.21 | open address

Instance state

Running

Private IP DNS name (IPv4 only)

ip-172-31-11-208.ap-south-1.compute.internal

Instance type

t2.micro

VPC ID

vpc-Oe2181ce3777a313c

Subnet ID

subnet-Oe06b1c09b402835f

Instance ARN

arn:aws:ec2:ap-south-1:586794457897:instance/i-01b

Private IPv4 addresses

172.31.11.208

Public IPv4 DNS

ec2-13-233-131-21.ap-south-1.compute.amazonaws.com | open address

Elastic IP addresses

-

AWS Compute Optimizer finding

Opt-in to AWS Compute Optimizer for recommendation s. | Learn more

Auto Scaling Group name

-

Managed

false

Connect

Instance state

Actions

aws [Alt+S] Search Asia Pacific (Mumbai)

EC2 > Instances > i-01b4c2afa3036c9cf > Connect to instance

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

Connect to your instance i-01b4c2afa3036c9cf (inst1) using any of these options

EC2 Instance Connect

Session Manager

SSH client

EC2 serial console

Instance ID  
i-01b4c2afa3036c9cf (inst1)

Connection Type

☒ Connect using EC2 Instance Connect  
Connect using the EC2 Instance Connect browser-based client, with a public IPv4 or IPv6 address.

☐ Connect using EC2 Instance Connect Endpoint  
Connect using the EC2 Instance Connect browser-based client, with a private IPv4 address and a VPC endpoint.

Public IPv4 address  
13.233.131.21

IPv6 address  
-

Username  
Enter the username defined in the AMI used to launch the instance. If you didn't define a custom username, use the default username, ubuntu.

ubuntu

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

Cancel Connect

**Step 3:** ubuntu > cd / > ls > cd etc > ls > cd nginx > ls > cd sites-available > ls > sudo chmod 777 default > nano default

and write the following code in location

“{

```
proxy_pass http://localhost:4000;
proxy_http_version 1.1;
proxy_set_header Upgrade $http_upgrade;
proxy_set_header connection 'Upgrade';
proxy_set_header Host $host;
proxy_cache_bypass $http_upgrade;
```

}” and save the default file.

aws [Alt+S] Search Asia Pacific (Mumbai)

```
ubuntu@ip-172-31-11-208:~$ cd /
ubuntu@ip-172-31-11-208:/$ ls
Prasun_aws  bin.usr-is-merged  dev  home  lib.usr-is-merged  lost+found  mnt  proc  run  sbin.usr-is-merged  srv  var
bin  boot  etc  lib  lib64  media  opt  root  sbin  snap  sys  usr
ubuntu@ip-172-31-11-208:/$ cd etc
ubuntu@ip-172-31-11-208:/etc$ ls
ModemManager  cron.hourly  groff  ld.so.conf  modprobe.d  perl  screenrc  sysstat
PackageKit  cron.monthly  group  ld.so.conf.d  modules  pki  security  systemd
X11  cron.weekly  group-  ldapp  modules-load.d  plymouth  selinux  terminfo
acpi  cron.yearly  grub.d  legal  mtab  sensors.d  timezone
adduser.conf  crontab  gshadow  libaudit.conf  multipath  polkit-1  sensors3.conf  tmpfiles.d
alternatives  cryptsetup-initramfs  gshadow-  libblockdev  multipath.conf  pollinate  services  ubuntu-advantage
apparmor  crypttab  gss  libibverbs.d  nanorc  ppp  sgml  ucf.conf
apparmor.d  dbus-1  hdparm.conf  libnl-3  needrestart  profile  shadow  udev
apport  debconf.conf  hibagent-config.cfg  locale.alias  netconfig  profile.d  shadow-  udisks2
apt  debian_version  hibinit-config.cfg  locale.conf  netplan  protocols  shells  ufw
bash.bashrc  deluser.conf  hosts  localtime  network  python3  skel  update-manager
bash_completion  devmotd.d  hosts.allow  logcheck  networks  python3.12  sos  update-motd.d
bindresvport.blacklist  dhcpcd.conf  hosts.deny  login.defs  nftables.conf  rc0.d  ssh  update-notifier
binfmt.d  dpkg  init.d  logrotate.conf  nginx  rc1.d  ssl  usb_modeswitch.conf
byobu  e2scrub.conf  iproute2  lab-release  nsaswitch.conf  rc2.d  subgid  usb_modeswitch.d
ca-certificates  ec2_version  iptables  lvm  os-release  rc3.d  subuid  wacom.conf
ca-certificates.conf  envronment  iscsi  magic  overlayroot.conf  rc4.d  subuid  vim
cloud  fstab  issue  magic.mime  overlayroot.local.conf  rc5.d  sudo.conf  vmware-tools
console-setup  fuse.conf  issue.net  manpath.config  pam.conf  rc6.d  sudo.logsrvd.conf  vtrgb
credstore  fwupd  kernel  mdadm  passw  rc7.d  sudoers  wgetrc
credstore.encrypted  gai.conf  landscape  mime.types  passwd  rc8.d  sudoers.d  xattr.conf
cron.d  gnutls  ld.so.cache  mke2fs.conf  passwd  rsyslog.conf  sysctl.conf  zsh_command_not_found
cron.daily  mnt  opt  root  sbin  snap  sys  usr
```

```
ubuntu@ip-172-31-11-208:/etc$ cd nginx/
ubuntu@ip-172-31-11-208:/etc/nginx$ ls
conf.d  fastcgi_params  koi-win  modules-available  nginx.conf  scgi_params  sites-enabled  uwsgi_params
fastcgi.conf  koi-utf  mime.types  modules-enabled  proxy_params  sites-available  snippets  win-utf
ubuntu@ip-172-31-11-208:/etc/nginx$ cd sites-available/
ubuntu@ip-172-31-11-208:/etc/nginx/sites-available$ ls
default
ubuntu@ip-172-31-11-208:/etc/nginx/sites-available$ sudo chmod 777 default
ubuntu@ip-172-31-11-208:/etc/nginx/sites-available$
```

aws

Q Search

[Alt+5]

Asia Pacific (Mumbai)

```
root /var/www/html;

# Add index.php to the list if you are using PHP
index index.html index.htm index.nginx-debian.html;

server_name _;

location / {
    proxy_pass http://localhost:4000;
    proxy_http_version 1.1;
    proxy_set_header Upgrade $http_upgrade;
    proxy_set_header connection 'Upgrade';
    proxy_set_header Host $host;
    proxy_cache_bypass $http_upgrade;

    # First attempt to serve request as file, then
    # as directory, then fall back to displaying a 404.
    #try_files $uri $uri/ =404;
}


```

⌘ Help

⌘ Write Out

⌘ Where Is

⌘ Cut

⌘ Execute

⌘ Location

⌘ Undo

⌘ Set Mark

⌘ To Bracket

⌘ Previous

⌘ Exit

⌘ Read File

⌘ Replace

⌘ Paste

⌘ Justify

⌘ Go To Line

⌘ Redo

⌘ Copy

⌘ Where Was

⌘ Next

```
ubuntu@ip-172-31-11-208:/etc/nginx/sites-available$ sudo chmod 777 default
ubuntu@ip-172-31-11-208:/etc/nginx/sites-available$ nano default
ubuntu@ip-172-31-11-208:/etc/nginx/sites-available$ sudo systemctl restart nginx
ubuntu@ip-172-31-11-208:/etc/nginx/sites-available$
```

Step 4: Go to the incognito tab and paste the instance URL to check the project without entering the PORT.



## 502 Bad Gateway

nginx/1.24.0 (Ubuntu)