AWS EC2 SETUP

EC2:-An Amazon EC2 instance is a virtual server in Amazon's Elastic Compute Cloud (EC2) for running applications on the Amazon Web Services (AWS) infrastructure.

CREATE EC2 INSTANCE:-

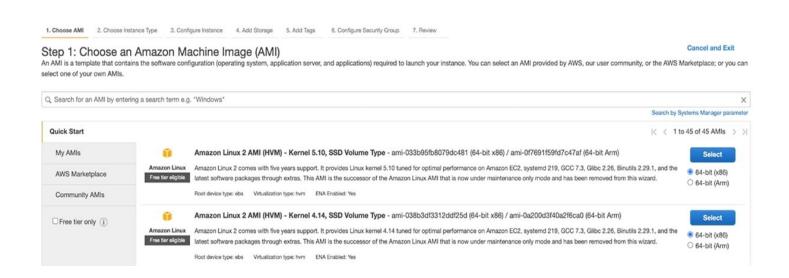
STEP 1:- Chose AMI

AMAZON MACHINE IMAGES (AMI):-

An Amazon Machine Image (AMI) is a supported and maintained image provided by AWS that provides the information required to launch an instance

AWS offers a set of AMIs for OSes, including the following:

- Amazon Linux
- Ubuntu
- Apple macOS
- Red Hat Enterprise Linux
- Microsoft Windows

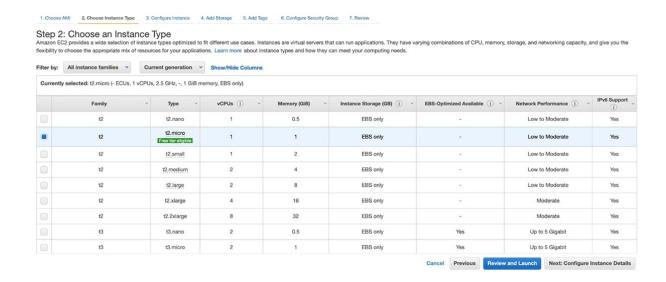


STEP 2:- Chose Instance type

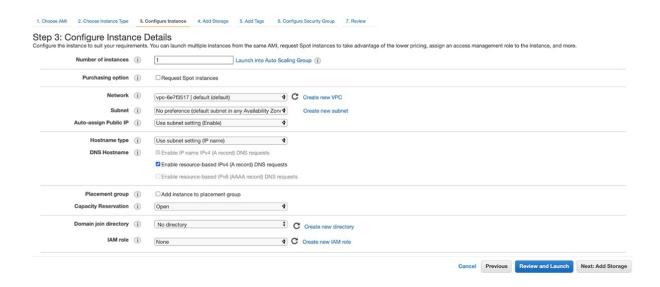
INSTANCE TYPES

Instance Family	Current Generation Instance Types
General purpose	t2.nano t2.micro t2.small t2.medium t2.large m4.large m4.xlarge m4.2xlarge m4.4xlarge m4.10xlarge m3.medium m3.large m3.xlarge m3.2xlarge
Compute optimized	c4.large c4.xlarge c4.2xlarge c4.4xlarge c4.8xlarge c3.large c3.xlarge c3.2xlarge c3.4xlarge c3.8xlarge
Memory optimized	r3.large r3.xlarge r3.2xlarge r3.4xlarge r3.8xlarge
Storage optimized	i2.xlarge i2.2xlarge i2.4xlarge i2.8xlarge d2.xlarge d2.2xlarge d2.4xlarge d2.8xlarge
GPU instances	g2.2xlarge g2.8xlarge

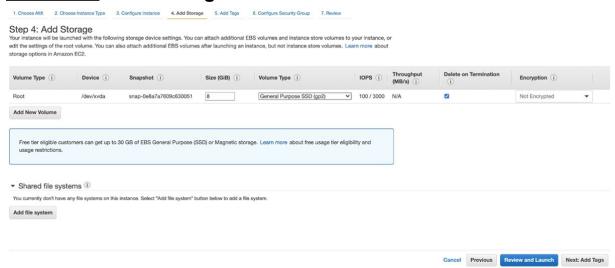
They are grouped by characteristics in terms of compute, memory, storage and networking resources. Most instances are billed by the minute. Pricing is proportional to the resources allocated to it, such as memory, vCPUs, Elastic Block Store (EBS)/SSD storage and the network's data throughput rate



STEP 3:- Configure Instance Details

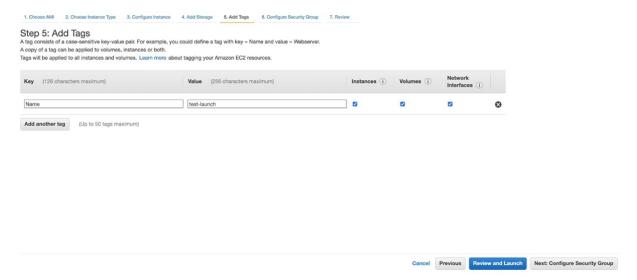


STEP 4:- Add storage



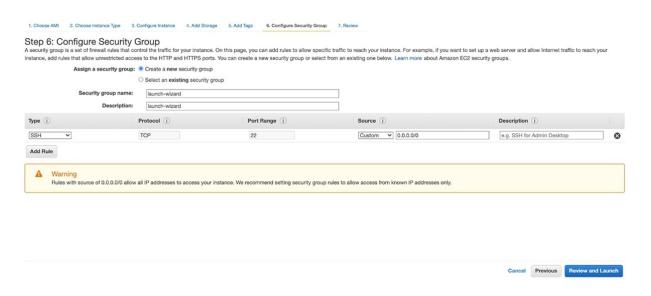
STEP 5:- Add tags

Specify a Name tag to easily identify the EC2 instance in the console after it's launched



STEP 6:- Configure security group

Security groups in AWS determine a set of access rules for both incoming and outgoing traffic in the EC2 instance. The settings include port ranges, IPs or security group IDs assigned to resources trying to access an EC2 instance. Limit incoming traffic to only the set of parameters strictly required to access an EC2 instance. Avoid generic rules that allow open access to a wide range of ports and IP addresses.



STEP8:- Enable SSH access with a key

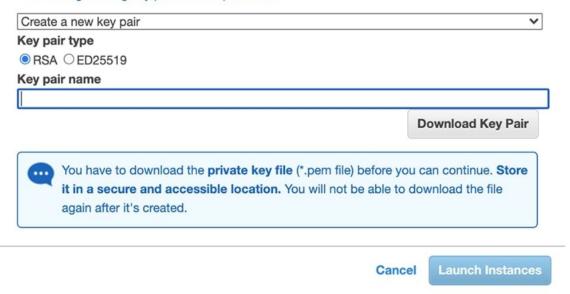
The key is used to enable Secure Shell (SSH) access into the EC2 instance.

Select an existing key pair or create a new key pair

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A key pair consists of a **public key** that AWS stores, and a **private key file** that you store. Together, they allow you to connect to your instance securely. For Windows AMIs, the private key file is required to obtain the password used to log into your instance. For Linux AMIs, the private key file allows you to securely SSH into your instance. Amazon EC2 supports ED25519 and RSA key pair types.

Note: The selected key pair will be added to the set of keys authorized for this instance. Learn more about removing existing key pairs from a public AMI.



ACCESS EC2 INSTANCES IN LINUX (SSH)

Instance ID

i-09d25d52c1ef541a0 (ec2-1)

- 1. Open an SSH client.
- 2.
- 3. Locate your private key file. The key used to launch this instance is ec2kp.pem
- 4.
- 5. Run this command, if necessary, to ensure your key is not publicly viewable.

chmod 400 ec2kp.pem

Connect to your instance using its Public DNS:

ec2-52-87-98-119.compute-1.amazonaws.com

Example:

ssh -i "ec2kp.pem" ec2-user@ec2-52-87-98-119.compute-1.amazonaws.com

