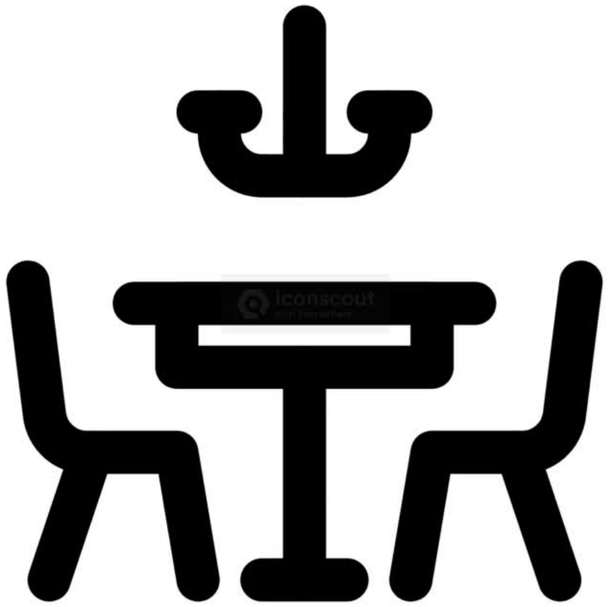
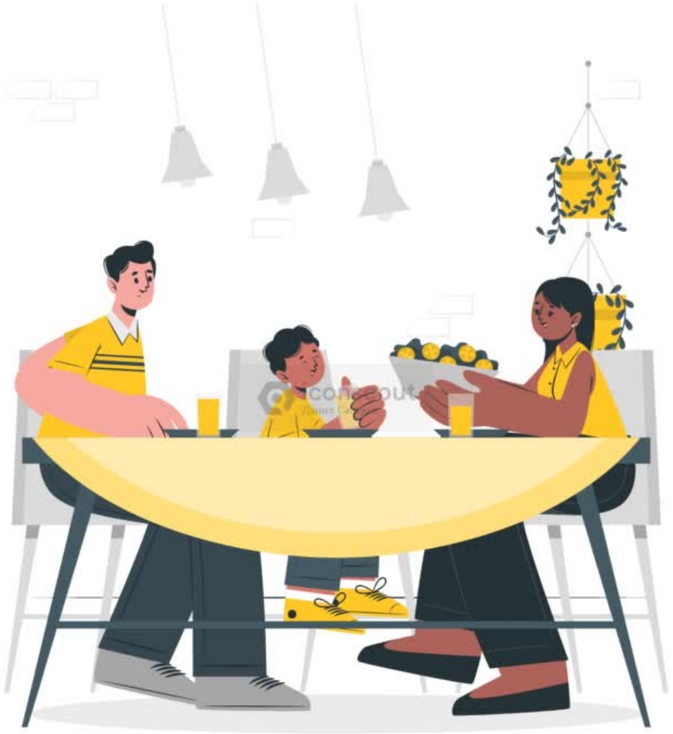
AMAZON EC2

WHAT IS SERVER?



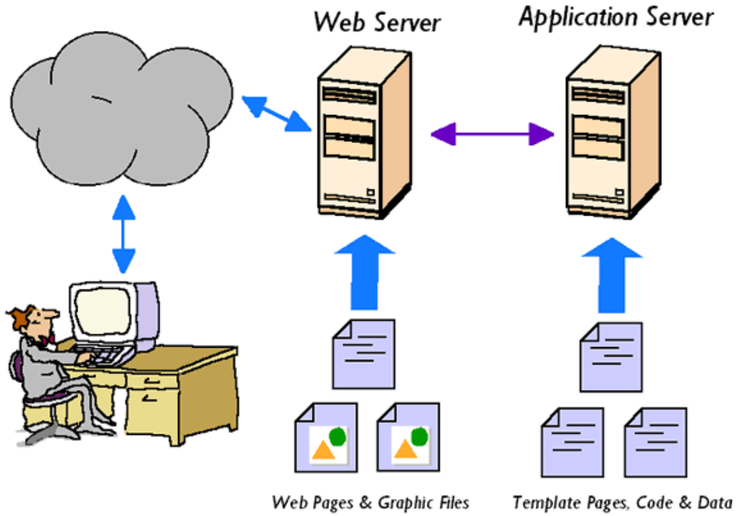


SERVER:

Servers are the computers that run services to serve the needs of users i.e. (to provide services to other computers). These server are used for various purposes like hosting websites, running applications, storing and managing data.

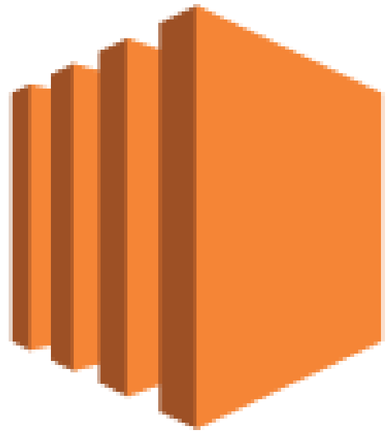
TYPES OF SERVERS:

- Web Server : Apache, Nginx, IIS (Internet information service), GWS(Google Web server)
- Application server : Apache Tomcat, F5 Nginix, IBM Websphere
- Database Server
- Email server
- FTP Server
- File server
- Proxy server
- Streaming server
- IRC Server (Internet relay chat)
- Fax server



WHAT IS EC2?

ELASTIC COMPUTE CLOUD IS A WEB SERVICE THAT PROVIDES SECURITY AND RESIZABLE COMPUTE CAPACITY IN THE CLOUD WHICH IS DESIGNED TO USED BY DEVELOPERS EASIER.

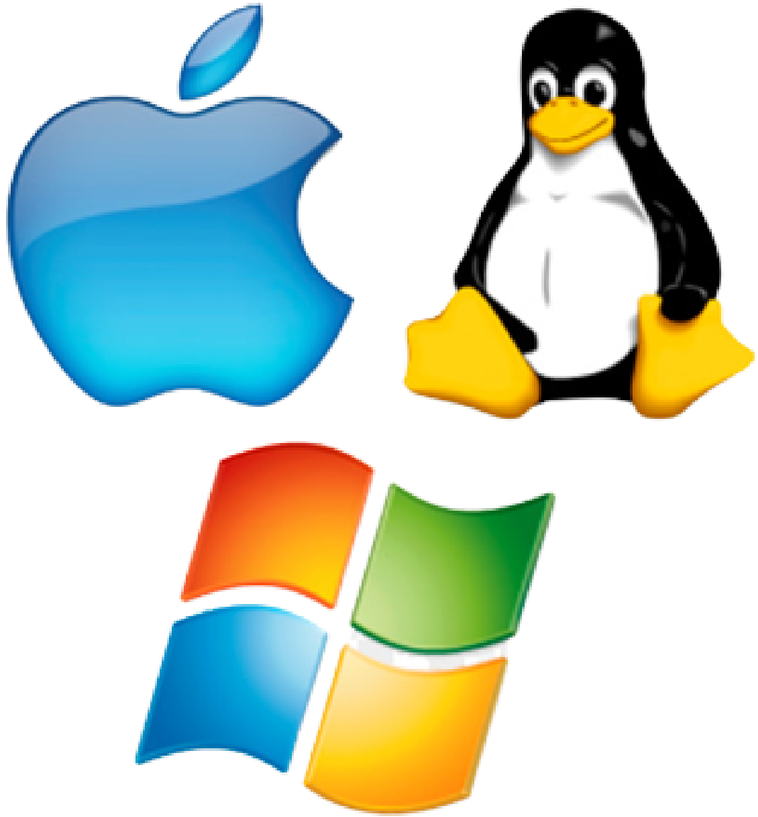


IT IS ONE OF THE SERVICES PROVIDED BY THE AWS WHICH WE CAN USE IT TO LAUNCH INSTANCES ON DIFFERENT OS.

TO LAUCH EC2 INSTANCE THERE WILL BE SEVEN STEPS NEEDS TO BE PERFOM.

STEP-1: Choose an Amazon Machine Image (AMI):

- An AMI is a template that contains the software configuration (operating system, application server, and applications) required to launch your instance
- It consist of an AMI-ID which is region specific.
- We can buy, sell and share the AMI's.
- We need to use free tier AMI's only



STEP-2: Choose an instance type:

In the second step, we are providing CPU & MEMORY to our instance. Here we need to select the instance type which is under free tier eligible.

T2 MICRO (1 CPU AND 1 GB) AND T2 NANO (1 CPU AND 0.5 GB)

Total instance families are 90 available

All instance families	c5	c6id	g3s	im4gn	m5d	mac2	r5b	u-3tb1	z1d
t1	c5a	c7g	g4ad	inf1	m5dn	p2	r5d	u-6tb1	
t2	c5ad	cc2	g4dn	is4gen	m5n	p3	r5dn	u-9tb1	
t3	c5d	d2	g5	m1	m5zn	p3dn	r5n	vt1	
t3a	c5n	d3	g5g	m2	m6a	p4d	r6a	x1	
t4g	c6a	d3en	h1	m3	m6g	r3	r6g	x1e	
a1	c6g	dl1	i2	m4	m6gd	r4	r6gd	x2gd	
c1	c6gd	f1	i3	m5	m6i	r5	r6i	x2idn	
c3	c6gn	g2	i3en	m5a	m6id	r5a	r6id	x2iedn	
c4	c6i	g3	i4i	m5ad	mac1	r5ad	u-12tb1	x2iezn	

STEP-3: Configure your instance

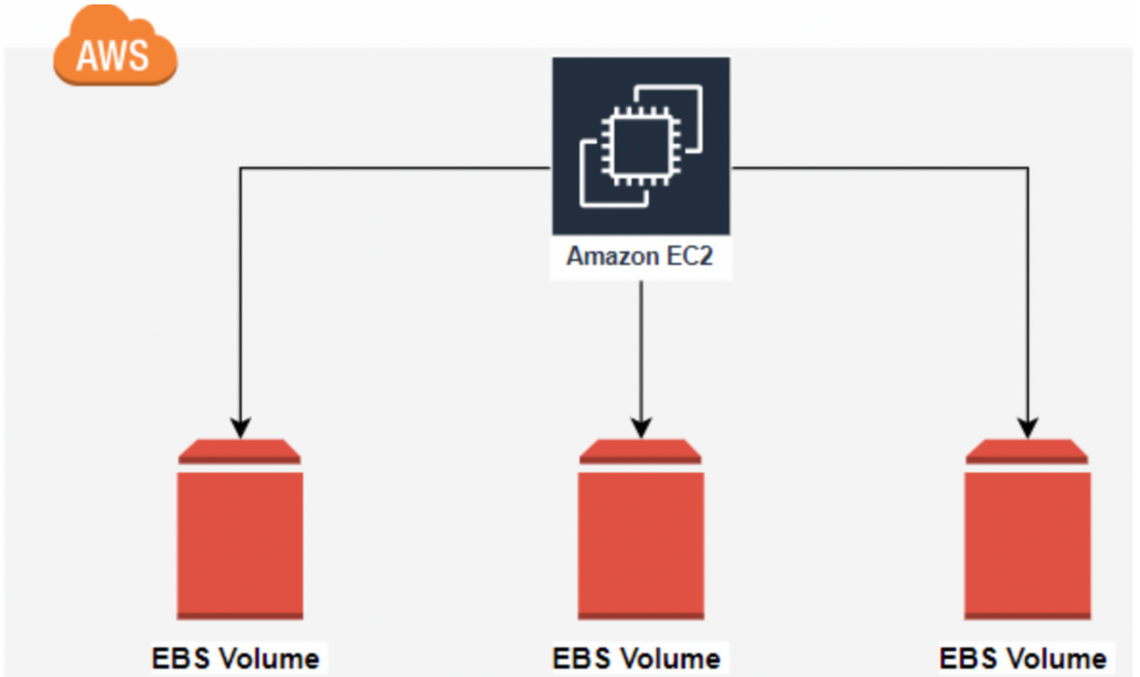
Configure the instance to suit your requirements. You can launch multiple instances from the same AMI, request Spot instances to take advantage of the lower pricing, assign an access management role to the instance, and more.

HERE YOU NEED TO CONFIGURE ALL YOUR INSTANCE DETAILS LIKE
NO.OF INSTANCES , SUBNETS ,VPC , IAM ROLE , TENANCY ALL OTHER STUFF

STEP-4: Add Storage

To store the data in server we use ebs volumes
ebs means elastic block storage
for single server we can use attach multiple ebs volumes
os will run on ebs volumes

Free tier eligible customers can get up to 30 GB of EBS General Purpose (SSD) or Magnetic storage.



STEP-5: Add Tags

You can give a name to your instance

STEP-6: Configure Security Group

A security group is a set of firewall rules that control the traffic for your instance.
These are region and network specific
The port range is 0 to 65535
It deals with the inbound and outbound traffic

STEP-7: Review & Launch

1. AMI : AMAZON MACHINE IMAGE:
   - TYPE OF OS (WINDOWS, MAC-OS, LINUX)
2. INSTANCE TYPE:
   - RAM & CPUS
3. CONFIGURE INSTANCE:
   - NETWORKS & DATA CENETERS
4. ADD STORAGE:
   - INTERNAL MEMORY (EBS - ELASTIC BLOCK STORE)
5. ADD TAGS:
   - NAME TO OUR SERVER
6. SECURITY GROUPS:
   - CONFIGURE THE IN COMING AND OUT GOING REQUESTS
7. REVIEW & LAUNCH