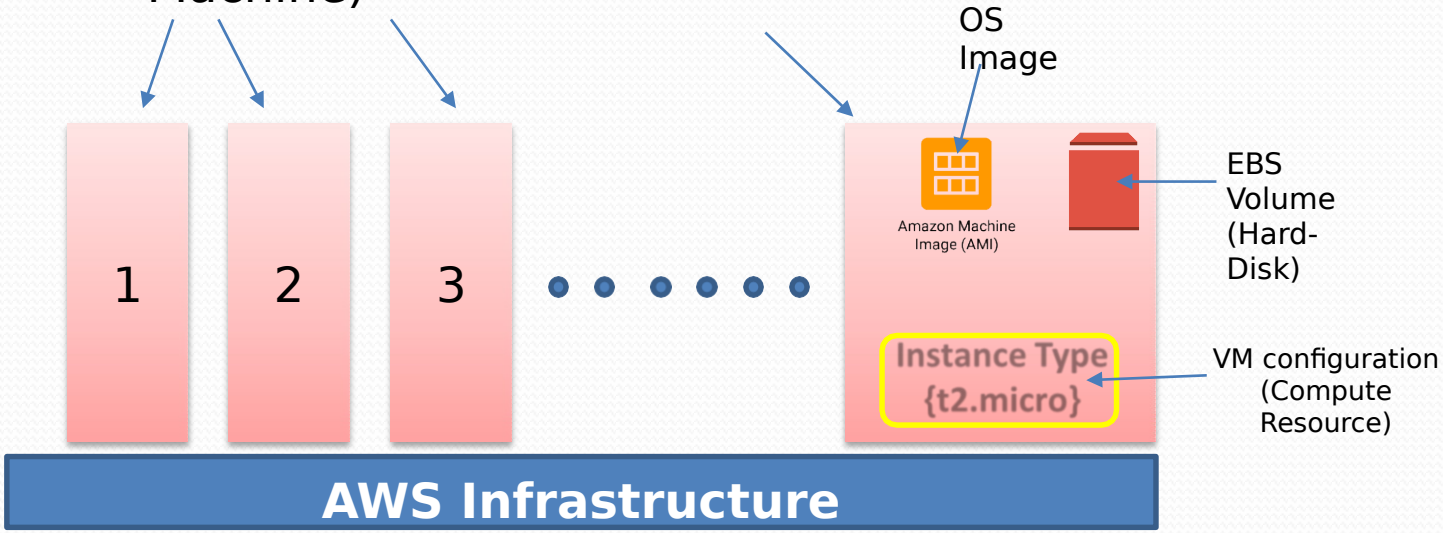
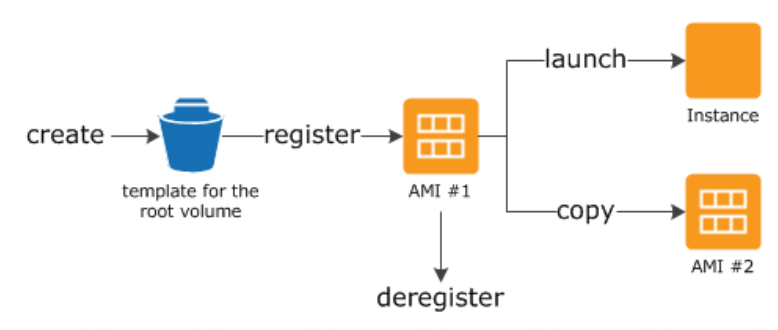
AWS EC2 (Elastic Compute Cloud)

AWS - EC2

AWS EC2 Instances (Virtual Machine)



Amazon Machine Image



(AMI Lifecycle)

An Amazon Machine Image (AMI) provides the information required to launch an instance. You must specify an AMI when you launch an instance. You can launch multiple instances from a single AMI when you need multiple instances with the same configuration.

Lab 1: Create an AMI from a running and configured AMI Lab 2: Share the AMI with other Accounts

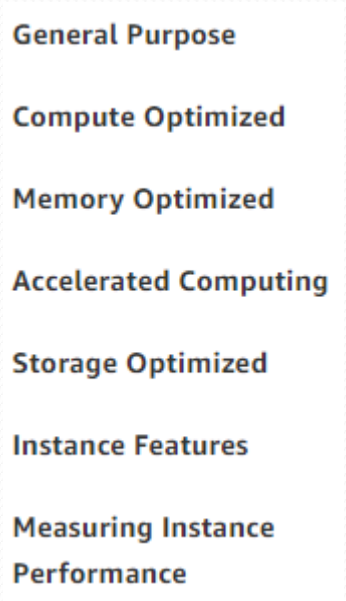
Practice Yourself

- Create an AMI
- Launch created AMI in the desired Availability Zone, VPC, AWS Region
- Now, Launch Instance using AMI

EC2 Instance Type

Amazon EC2 provides a wide selection of instance types optimized to fit different use cases. Instance types comprise varying combinations of CPU, memory, storage, and networking capacity and give you the flexibility to choose the appropriate mix of resources for your applications. Each instance type includes one or more instance sizes, allowing you to scale your resources to the requirements of your target workload.

https://aws.amazon.com/ec2/instance-types/



Features of Amazon EC2

Amazon EC2 features:

- Virtual computing environments, known as *instances*
- Preconfigured templates for your instances, known as *Amazon Machine Images (AMIs*
- Various configurations of CPU, memory, storage, and networking capacity for your instances, known as *instance types*
- Secure login information for your instances using *key pairs* (AWS stores the public key, and you store the private key in a secure place)
- Storage volumes for temporary data that's deleted when you stop or terminate your instance, known as *instance store volumes*
- Persistent storage volumes for your data using Amazon Elastic Block Store (Amazon EBS), known as *Amazon EBS volumes*
- Multiple physical locations for your resources, such as instances and Amazon EBS volumes, known as *regions* and *Availability Zones*
- A firewall that enables you to specify the protocols, ports, and source IP ranges that can reach your instances using *security groups*
- Static IPv4 addresses for dynamic cloud computing, known as *Elastic IP addresses*
- Metadata, known as *tags*, that you can create and assign to your Amazon EC2 resources
- Virtual networks you can create that are logically isolated from the rest of the AWS cloud, and that you can optionally connect to your own network, known as *virtual private clouds* (VPCs)