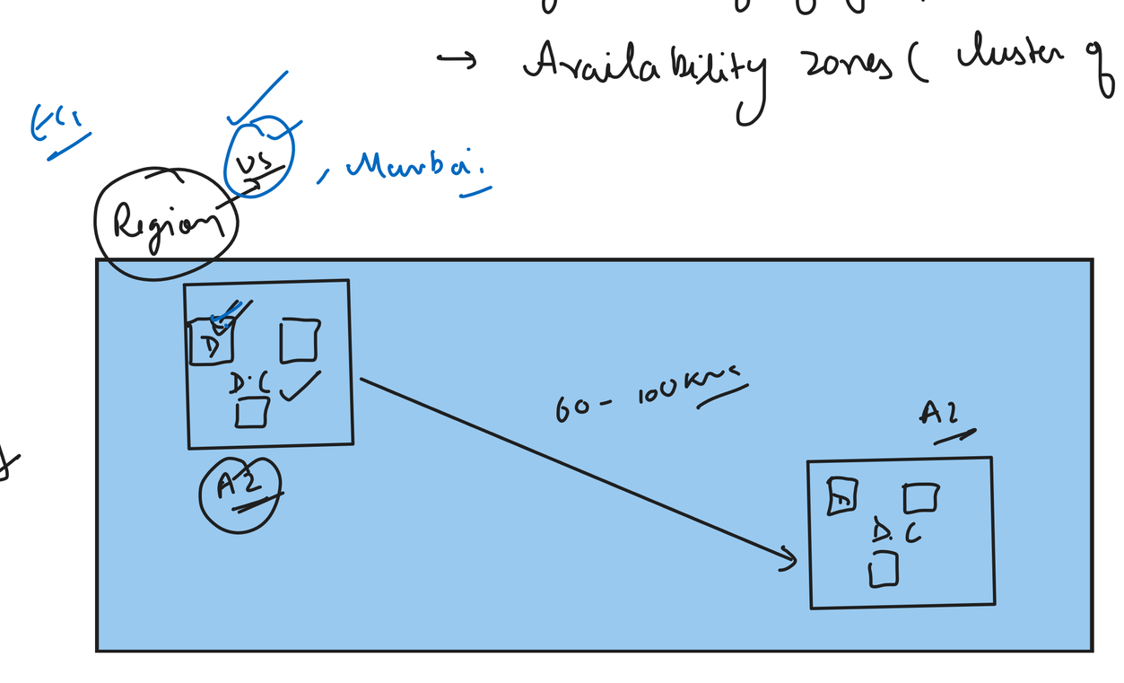
Agenda

- Module 1 contd.
- Module 2 Compute
  - EC2
  - Containers
  - Lambda

Recall → Cloud

→ Global Infra
↳ Regions (Large geographical area)
→ Availability zones (cluster of data centre)



High availability

Factors
1. Latency
2. Pricing
3. Availability
4. Compliance / governance

IAM (Identity & access Management), global
→ Authentication (who)
→ Authorization (what)

Users → root (By default full permission; when acc is created), Custom (By default zero permission)

Permission & List, Read EC2 → User → Authentication, credentials → AWS acc → VM's, D.B } Resources
User → allow →

List VM's

Ways to interact with AWS resources
→ Console (graphical) → Username & Password
→ Command Prompt (cli) → access key & Secret access key

e.g. List all S3 buckets

Policy → User → allow, denied → VM's, D.B } resources
(JSON) document → Permissions

Policy
- AWS Managed (Pre built) can't edit
- Customer managed (custom, edit)

e.g. User → access → EC2 Instances ✓, S3 buckets ✗, Database ✗
Policy (EC2 full access)

Groups → Collection of Similar User

e.g. 10 User ← Policy access to EC2

group ← attaching Policy (EC2 full access)
inherit 10 user, new user

Batch 43 user

Configuring AWS CLI

1. To Download & install AWS cli

https://docs.aws.amazon.com/cli/latest/userguide/getting-started-install.html

2. aws --version

3. aws configure
   → region
   → Secret access key
   → access key

IAM Role →
1. Temporary Permission
2. Service to Service access
3. Cross account access

e.g. EC2 user 1 hr → 12

e.g. Appln → EC2 Server → role → images → S3 bucket

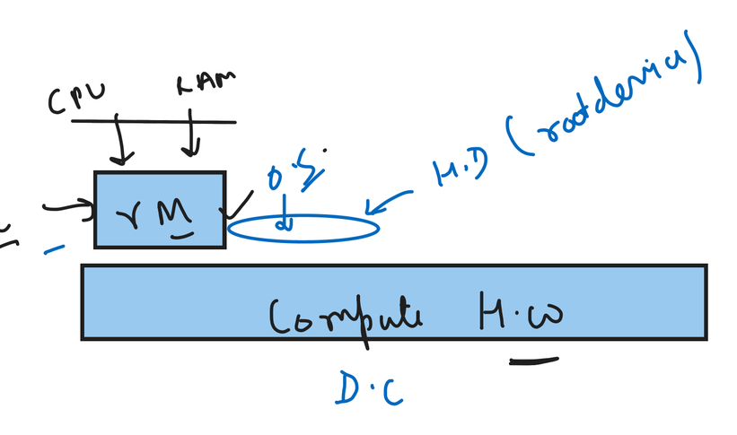
e.g. acc 1 → User → role → acc 2 → Resource ↳ EC2 ↳ S3

org → (dev) acc, (Prod) acc
user → role → EC2 server

Compute

EC2 (Elastic Compute cloud)

→ Pay as you go



→ Lifecycle
Pending → Running → Terminate
Running ⇅ Stop

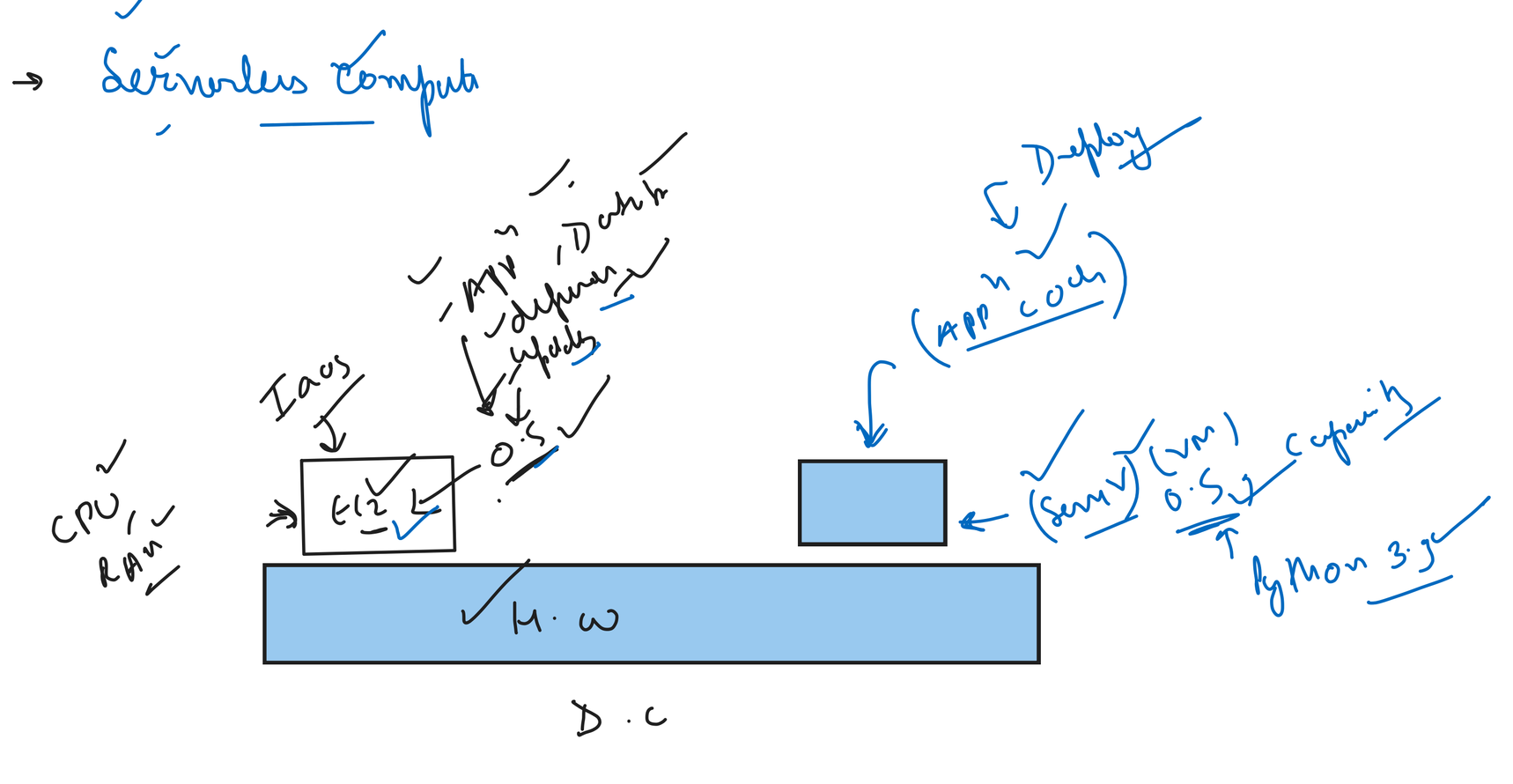
1. Tags → Key value Pair
   Name = MyServer

   e.g. Multiple EC2 Server
   15 Prod   10 Developer
   Env. = Prod

2. AMI (Amazon Machine Image)
   → Template (O.S, root device mappings)
   EBS volumes, Instance store

3. Instance Type
   → CPU, RAM

Lambda → Serverless Compute



→ Small Prog
→ 15 mins
→ 10 GB ← Size of code

Lab 1