**INTRODUCTION TO AWS**

* **IAM**

Identity and Access Management, Global Service

**Root account** created by default; admin

**Users** people within ur organization; and can be grouped

**Groups** only contain users, not other groups

* **Has permissions; JSON format**

***Statement*** *consists of:*

***Sid*** *identifier for the statement*

***Effect*** *whether the statement allows or denies access*

***Principal*** *account/user/role to which this policy applied to*

***Actions*** *list of actions this policy allows or denies*

***Resource*** *list of resources to which the actions applied to*

***Condition*** *conditions for when this policy is in effect*

***Password Policy***

* *Allow IAM users to change their own passwords*

***MFA –*** *uses hardware for auth; device*

* **I AM: Users & Groups**

**IAM Roles for Services**

* Some AWS services will need to perform actions on your behalf
* Assign permission to AWS services

Common roles: EC2 Instance Roles, Lambda, Roles for CloudFormation

* **AMAZON EC2**
* **Elastic Compute Cloud = IaaService**
* Virtual machines
* Is **a fundamental** to understand how the Cloud works

***Security Groups***

***EBS Volume*** *network storage; parang hard disk*

* ***It allows u to persist data,*** *even after their termination*
* ***Think of it as “Network USB stick”***

***AMI Overview “Amazon Machine Image”***

* *Are built for specific region*
* *U can add ur own software, config, os, monitoring, etc.*

**Load Balancing ‘*balancer’*** are servers that forward traffic to multiple servers (e.g EC2 instances) downstream

* High availability
* Has health check “up or down”
* Provide SSL termination (HTTPS) for u websites
* Separate public traffic from private traffic

**AUTO SCALING GROUP**

* Scale ASG based on CloudWatch alarms
* Alarm monitors a metric

**DNS “Route 53”**

* **Translates human friendly hostnames into machine IP add**

**S3**

* Allows people to store object in “buckets”
* Buckets must have a globally unique name
* Defined at the region level
* **NETWORKING**

**Public Vs. Private IP**

**IANA “Internet Assigned Numbers Authority”** established certain blocks of IPV4 add

**VPC “Virtual Private Cloud”** can have multiple VPC

**VPC CIDR should NOT overlap with your other networks**

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