

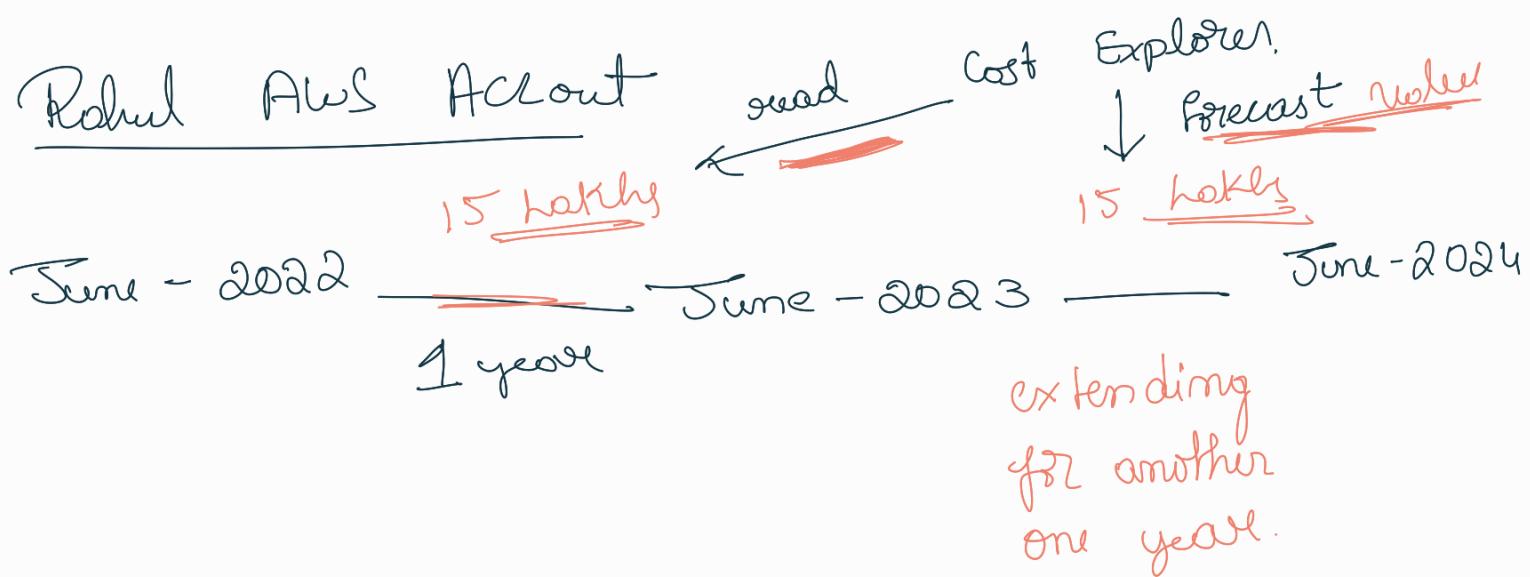
1) API Gateway :- acts as a "front door" for applications to access data.

Keyword - "front door"

→ workloads running - EC2, Code running on Lambda, any web application
④ any real-time communication applications.

2) AWS Cost Explorer :- visualize, understand and manage your AWS costs and usage over time

Ex :-



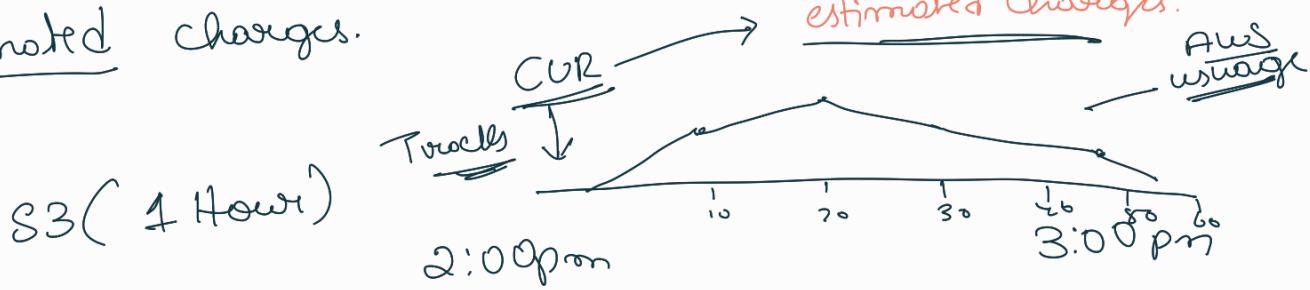
Keyword :- forecast/predict on your cost & usage.

* visualize, understand and manage your cost & usage

3) AWS Cost and usage Reports (CUR)

- ↳ Contains the most comprehensive set of cost and usage data available.
- ↳ you can use CUR to publish your AWS billing Reports.
- ↳ you can receive your reports that break down your costs by "hour, day (3) month".

AWS CUR tracks your AWS usage and provides estimated charges.



- key words :-
- estimated charges.
 - Reports only on Cost / usage.
 - Comprehensive set of CUR.

Elastic Load Balancers :-

→ automatically distributes your incoming traffic across multiple targets, such as EC2 instances, containers and IP addresses.

- ↳ it monitors the health of its registered targets and route traffic only to healthy targets.

Ex :- ELB using EC2 instance

States

Multiple

clients

Incoming
Traffic

ELB

EC2

EC2

EC2

Healthy

unHealthy.
(because it's unhealthy)

Healthy

Amazon Instance types :-

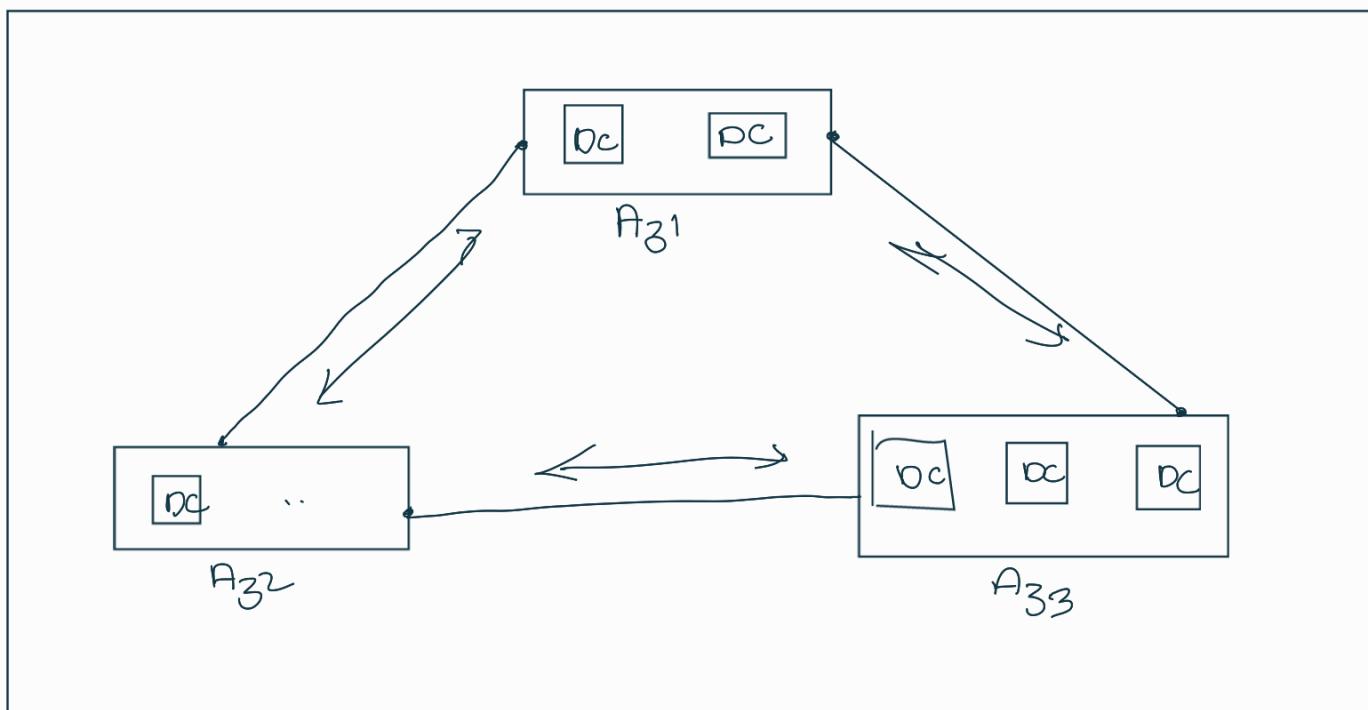
Dedicated hosts	On-Demand Inst	Reserved Inst	Spot Inst
<ul style="list-style-type: none"> - Costly - physical server allocated to your use. - it allow you to use your existing software licenses. ↳ to schedule the cost. <u>use case :-</u> if you need a physical server its fully dedicated to you. * can use existing software license. 	<ul style="list-style-type: none"> - short - term. - Second \oplus Hour usage. - no interruption. <u>use case :-</u> ↳ you pay for Compute Capacity by the Second with no long term. ↳ you decide when to launch, stop, start, reboot \oplus terminate. <u>keyword :-</u> * seconds billing. * short-term * decide when to use your instance ↳ start & stop / reboot & terminate. * minimum 60 seconds. * <u>no-interrupt</u> 	<ul style="list-style-type: none"> - long term. - 1 \oplus 3 yrs. - no interruption <u>Cost-effective</u>. - 72% discount compare to On-Demand. <u>use case :-</u> ↳ long term commitment * for 1 or 3 yrs. with <u>no-interrupt</u> <u>Keywords :-</u> * up to 72% disc * long term. * no-interrupt. * cost-effective 	<ul style="list-style-type: none"> - up to 90% <u>disc</u> - Inst interrupt. <u>Cost-effective</u> <u>usage case :-</u> ↳ flexible about when your applications run and can be <u>interrupted</u> <u>Key word :-</u> * up to 90% disc * interrupted. * flexible run time. * cost-effective.

AWS Global Infrastructure :-

Region :- each Region should have min 3 AZ's and max AZ's.

Availability zones :- each AZ has one or more discrete data Centers.

- redundant power.
- networking and connectivity.
- AZ's are separated from each other so that they're "isolated from disasters".
- each AZ is connected with high bandwidth - low latency networking.



Region

Edge locations :-

'Content is delivered' to end users with 'low - latency'.

AWS Global Services :-

- IAM.
- Route 53. (DNS service)
- CloudFront. (Content Delivery service).
- WAF. (Web Application Firewall).

AWS Services - Region Scoped :-

- EC2 - (IaaS)
- Elastic Beanstalk (PaaS),
- Lambda (FaaS) - Servers.
- Rekognition (SaaS).

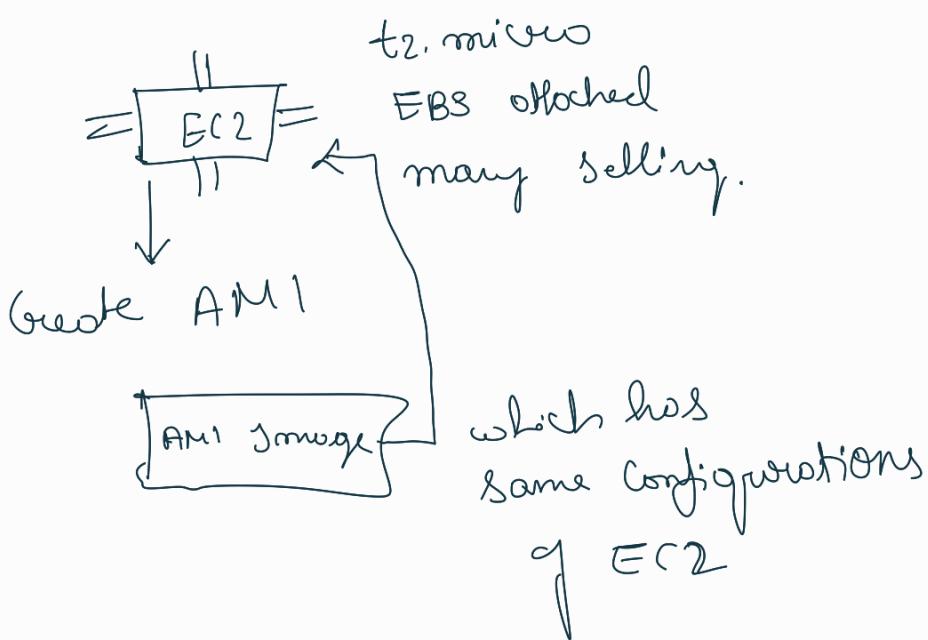
Infrastructure as a Code :-

↳ AWS provides services that enable the creation, deployment and maintenance of Infrastructure in a programmatic way instead of manual processing.

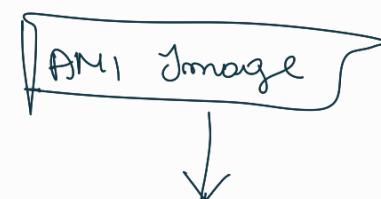
AMI (Amazon Machine Images) :-

- ↳ AMI provides the information required to launch an instance & it is maintained image provided by AWS.
- using single AMI you can launch multiple instances. with the same configurations.

Ex:-



using this



"without any configurations you can launch multiple instances with same configuration."

AWS Marketplace :- customers can use to find, buy, deploy and manage third-party software, data to own their businesses.

AWS Professional Services

→ they are global service, provides AWS customers with high-touch assistance. Leading them through the change to a cloud-based IT.

- * Best available AWS cloud migration.
- * Change Management (on-prem to AWS).
- * Technology specialist expertise.

→ The mission of AWS professional services is to accelerate customer business outcomes as a result of innovative usage of the AWS platform.

AWS Service Health Dashboard :-

- you can view the overall status of AWS services.
- you can sign-in to view personalized view of service health.

AWS Personal Health Dashboard :-

- you can receive notification and remediation guidance when AWS events that may impact you.
- personalized view.
- whenever some changes happening it will alerts you.

Service Health Dashboard

- you can view overall status of all services.

both Available for all customer.

Personal Health dashboard

- personalized view
- alerts you.
- receive notification & guidance of any impact happen.

Security Group

- ↳ acts as a virtual firewall for your EC2 instance.
- control incoming and outgoing traffic from your instance.
- ∴ → it has only "allow" rule.

AWS Service Catalog :-

- ↳ lets you centrally manage your cloud resources to achieve governance at scale of your infrastructure as code(inc) Templates, written in CloudFormation.

AWS Support Center

- ↳ offers a range of plans that provide access to tools and expertise that support and operational health of your AWS solutions.
- All Support plans provide 24/7 access to customer service.

VPN :- virtual private networks

- ↳ connect your on-premises networks and remote workers to the cloud.

AWS client VPN :-

↳ Fully managed, elastic VPN service that automatically scales up & down on user demand.

AWS Site-to-Site VPN :-

↳ Creates a secure connection between your data center & branch office and your AWS cloud resources.

→ For globally distributed applications, the audience-based site-to-site VPN option provides even greater performance by utilizing the AWS Global Accelerator.