

Agenda

automation
command

C#, Java

- AWS Interfaces (CLI, SDK) — Morning

- SQS, SNS, Event Bridge — Evening

- AWS Security

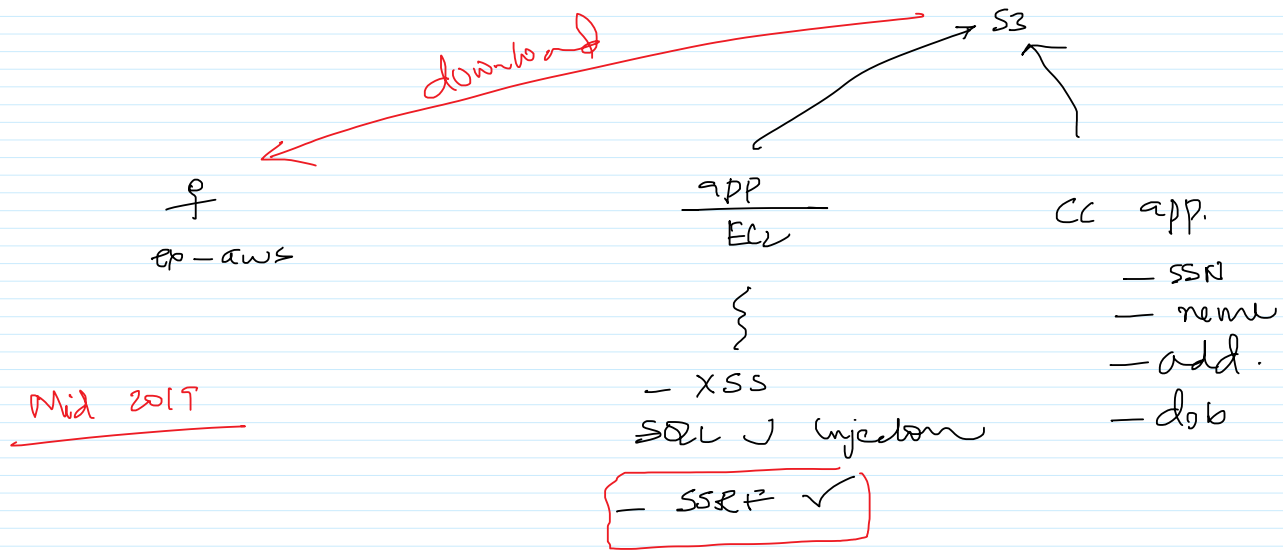
- SG
- LT
- K8s - pm

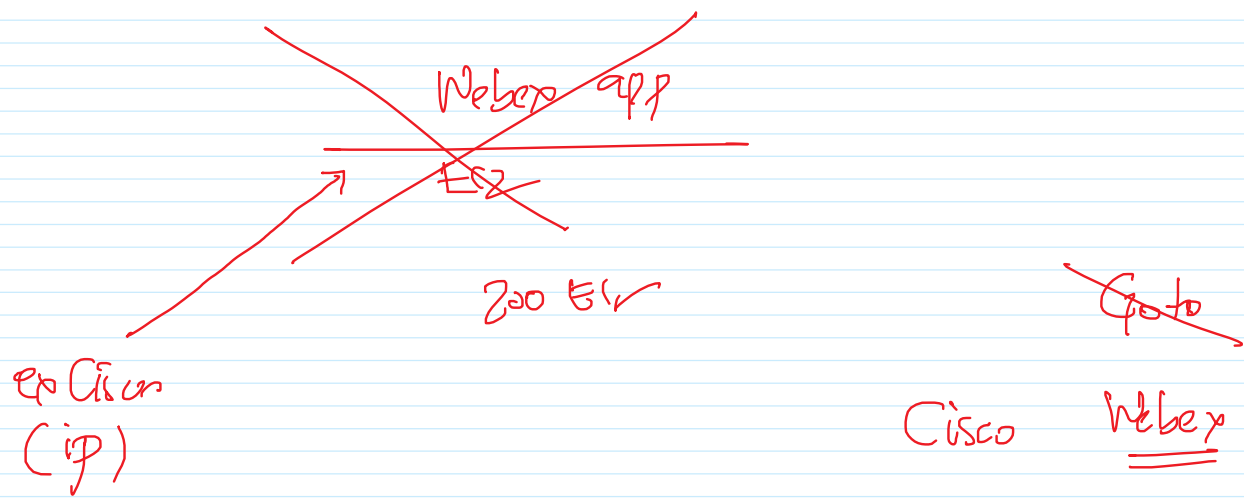
u — EC2 → ubuntu

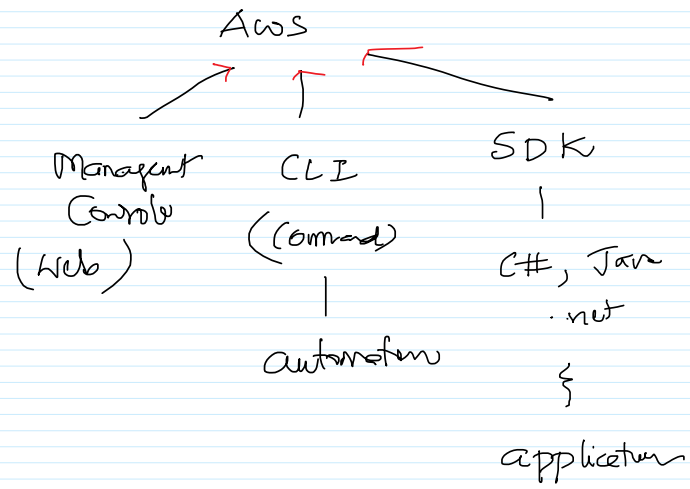
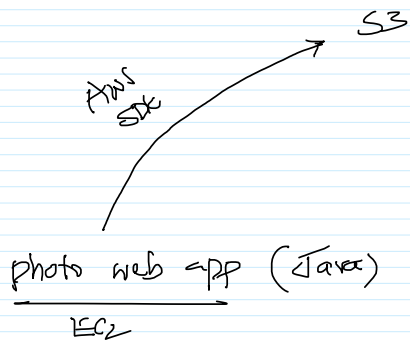
Amazon linux — EC2 → ec2-user

shared resp. model

- physical security → Aus
- application level sec. → us

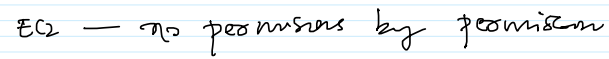




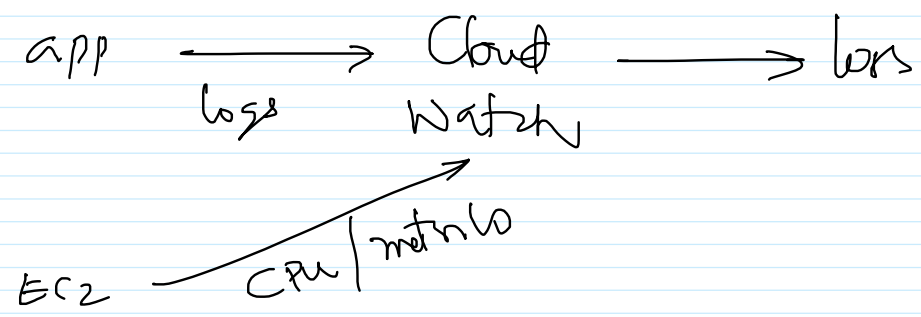


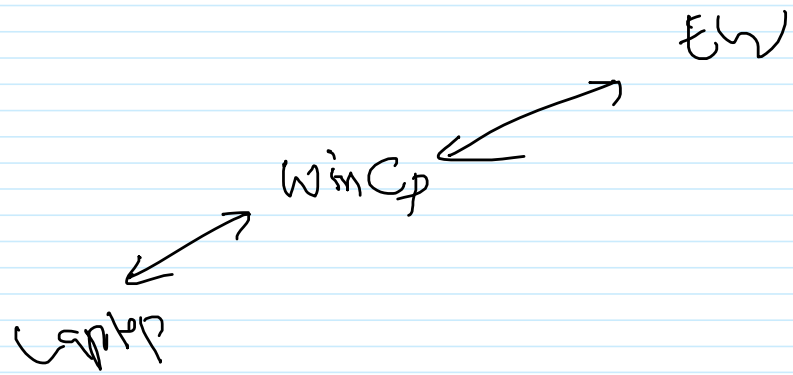
aws	service name	operation	arguments
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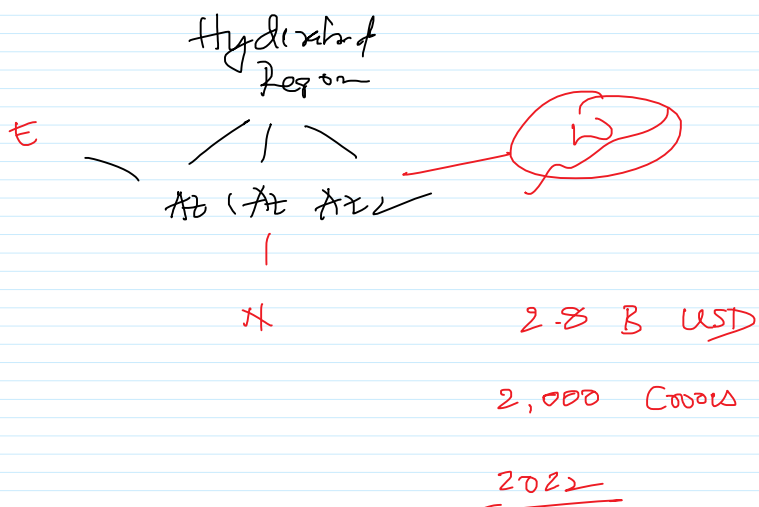
→ {	aws	ec2	run-instances	tz.m10n	sg1	kp1
	aws	ec2	create-sg	name	description	



- Launch Ubuntu EC2
- Install AWS CLI
- Create IAM Role with Administrative Access
- Attach IAM Role to EC2
- Try out the AWS Commands







Regions

^

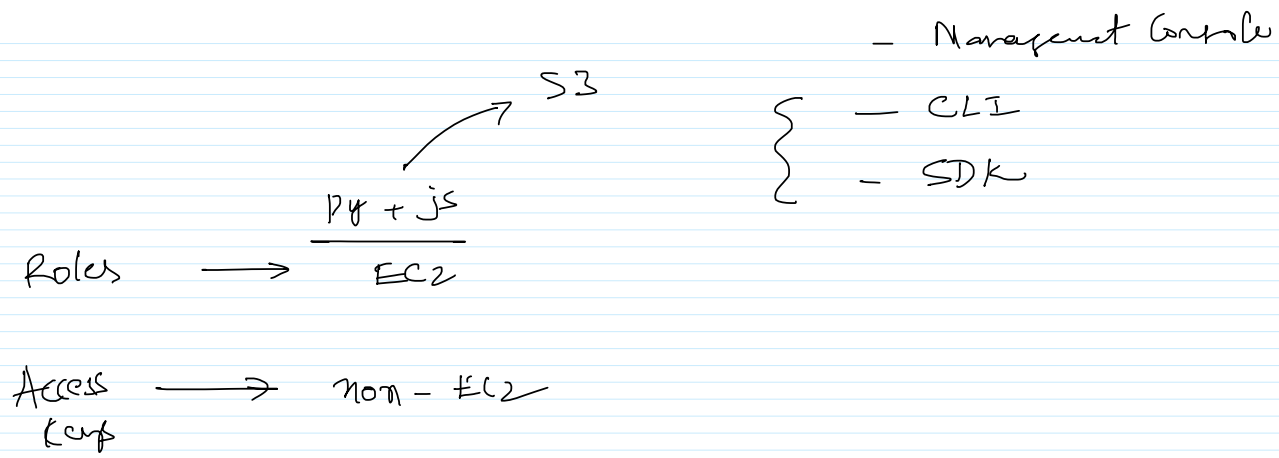
A2

^

DC

^

DD



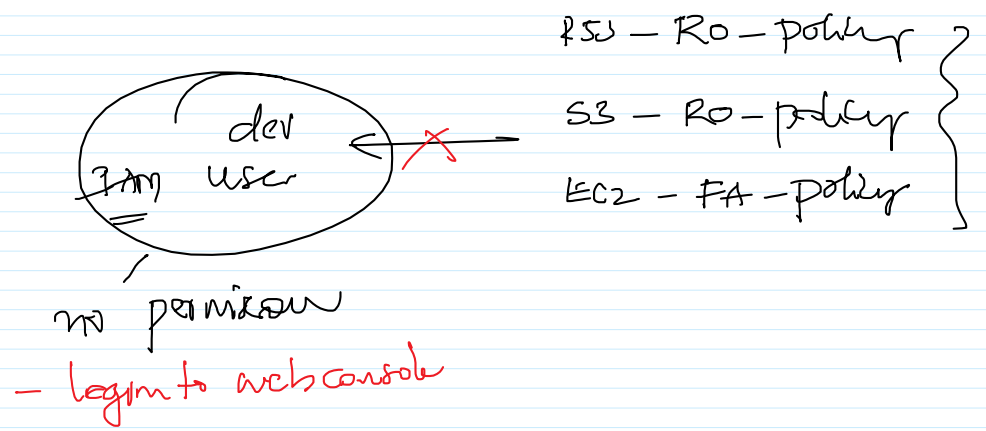
Ans
account
(admin) ← CC/DC

limited
priv → IAM
account/user

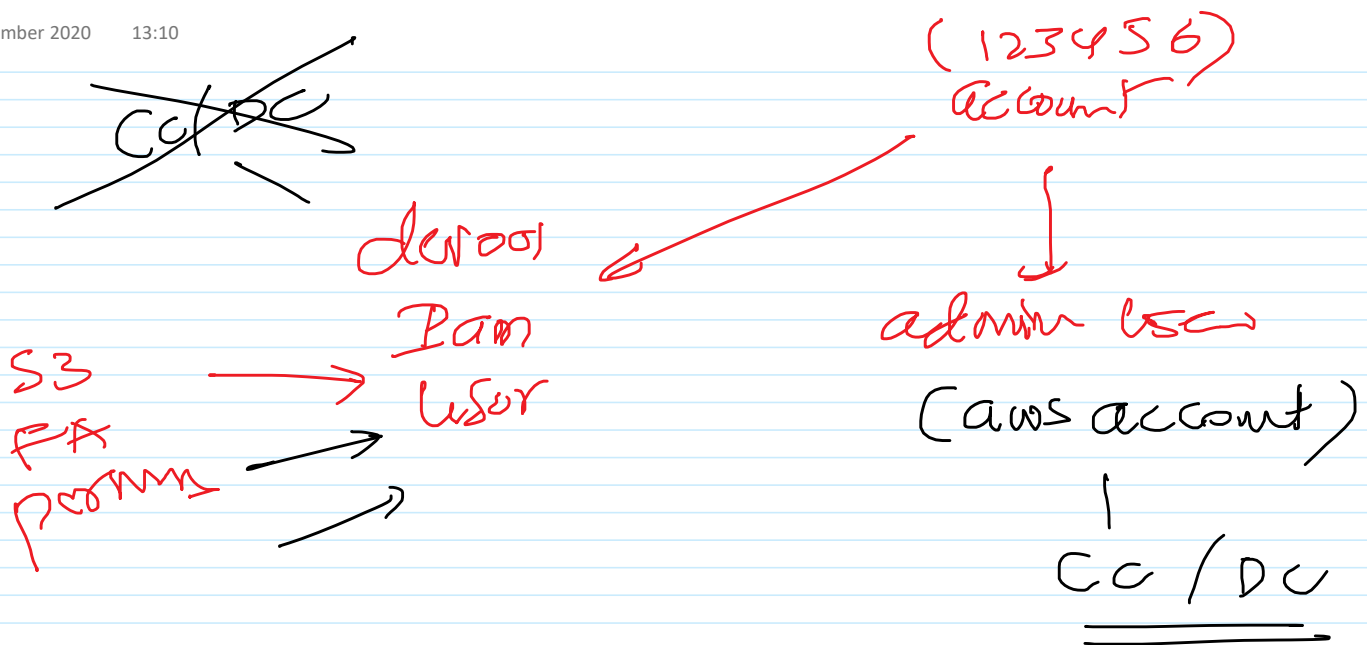
FF
prod → { [] } prod

limited
priv → IAM
account/user

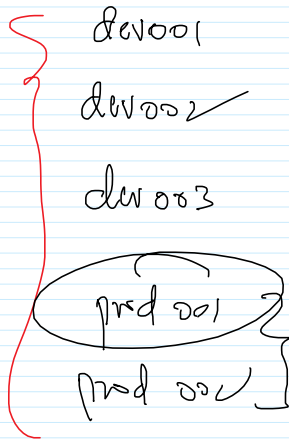
FF
dev → { [] } dev



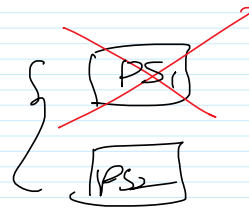
EC2 ← Roles ← Policy



IAM
Wor

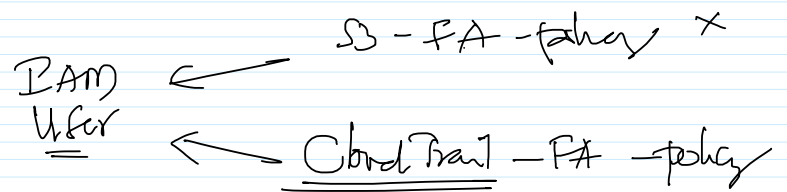


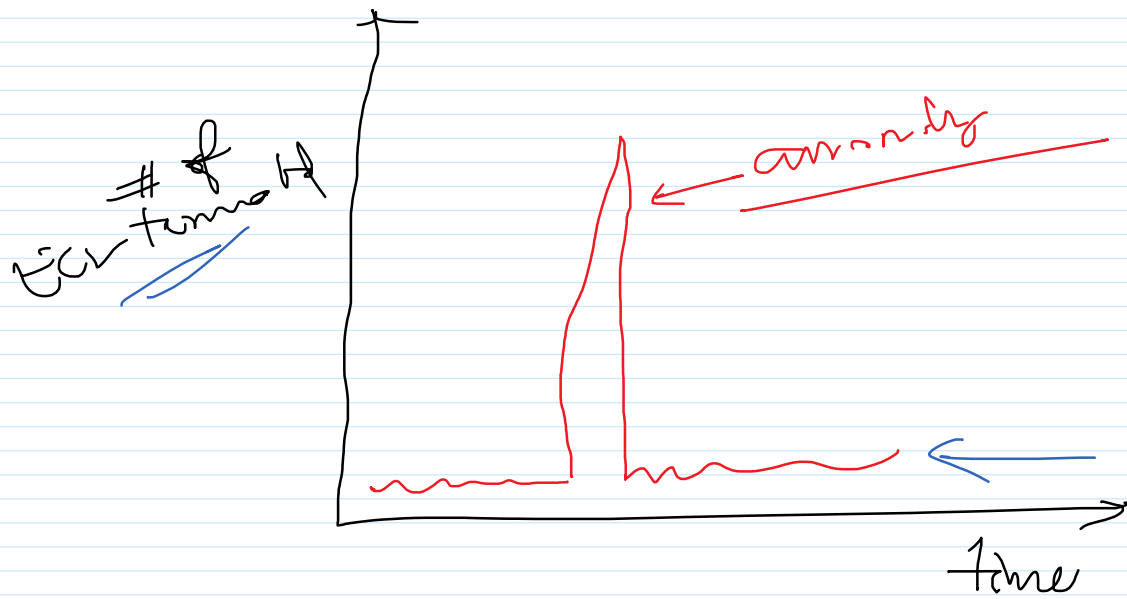
FA →



CLI
SDK
Manag. Console

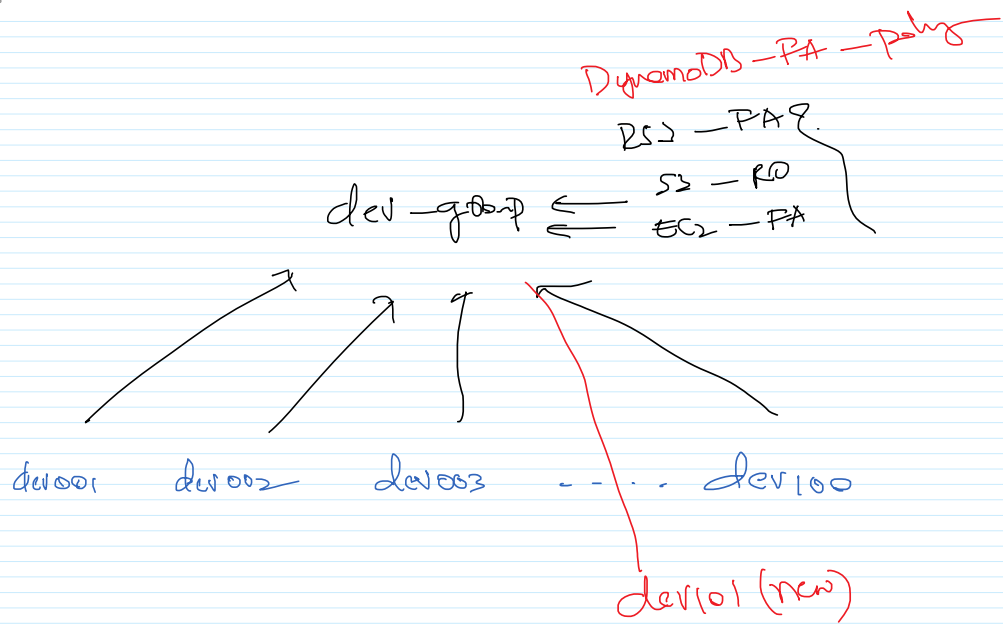
CloudTrail — default on
date/time → user → action → resource
today → prod001 → termination → ec2id





CloudWatch → metrics for AWS resource
(vs) CPU } EG, EC2, RDS
Network }
Disk }

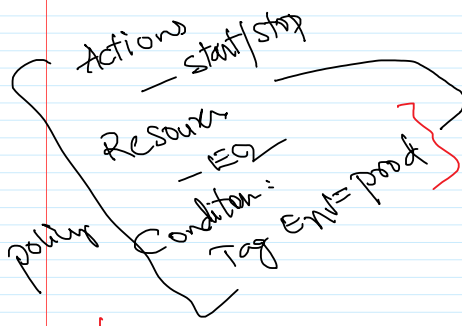
CloudTrail → Activity
Date / time → User → Action → Resource



W - L
group = S ← perm
/ \
users

I AM user

Tags



des f
f

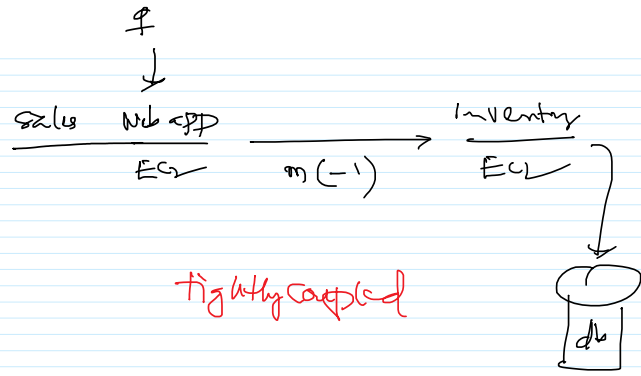
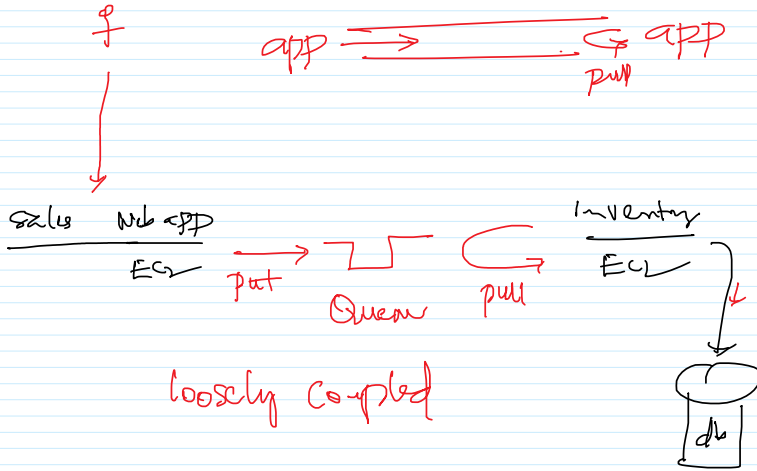
f
prod f

Env =
des

Env =
prod

SQS (Simple Queue Service)

09 November 2020 14:05



- Rabbit mq
- Active mq
- Apache mq
- kafka Apache
- ms mq
- IBM mq

→
→
→
~~Apache
EC2~~

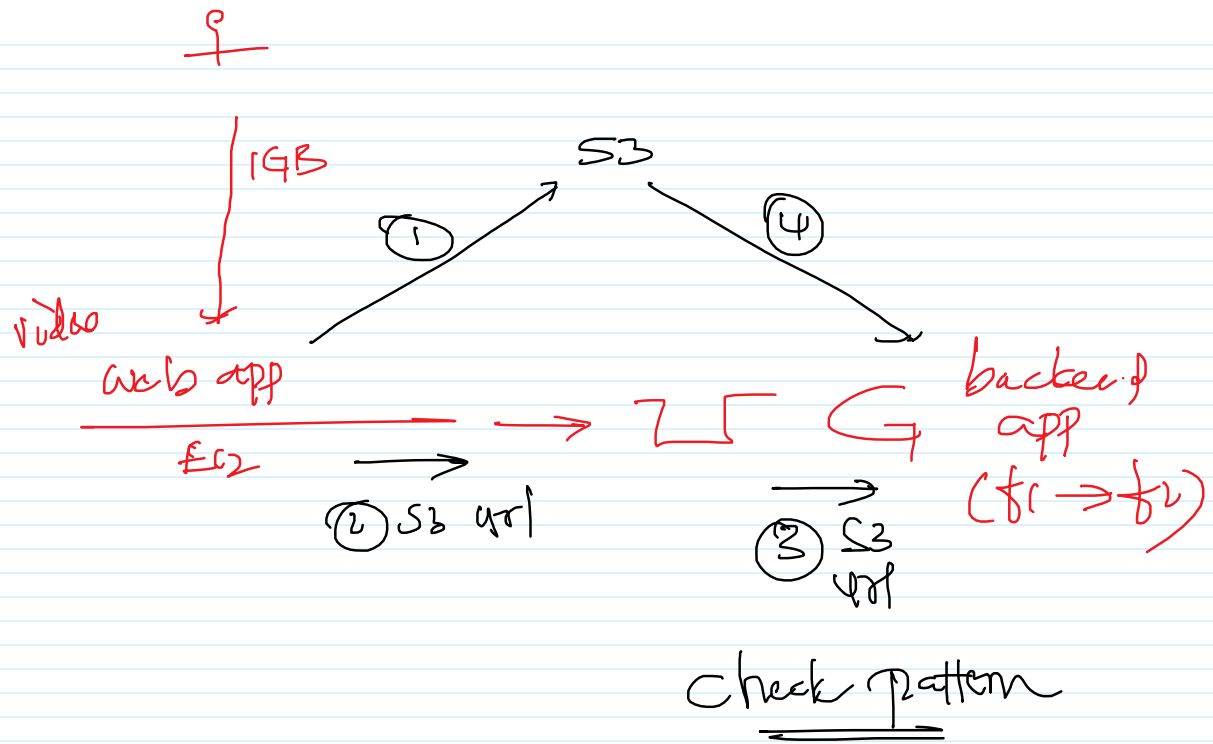
~~- Licence
- Install
- Upgrade
- patch
- HA
- Scaling~~

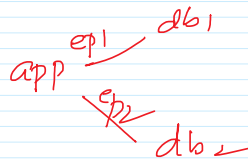
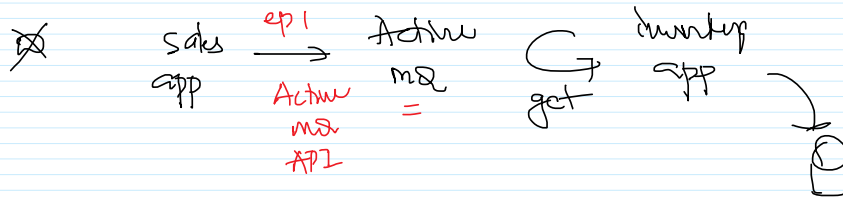
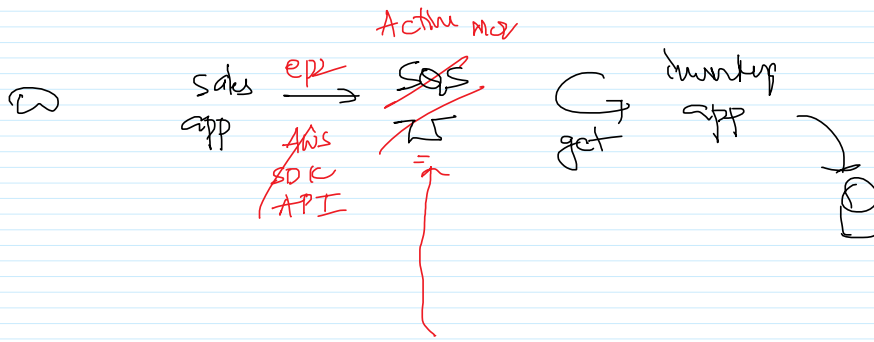
SQS

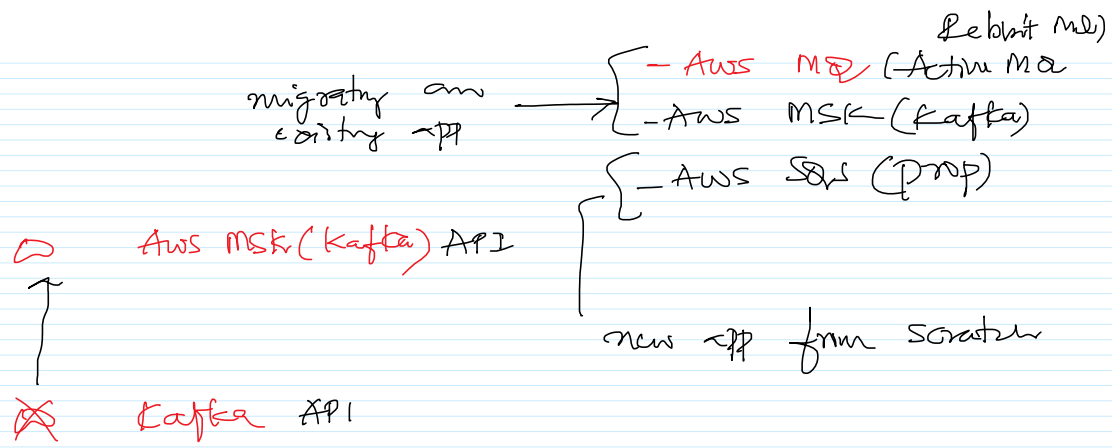
L Managed Service.

L Servers (don't think abt sn)

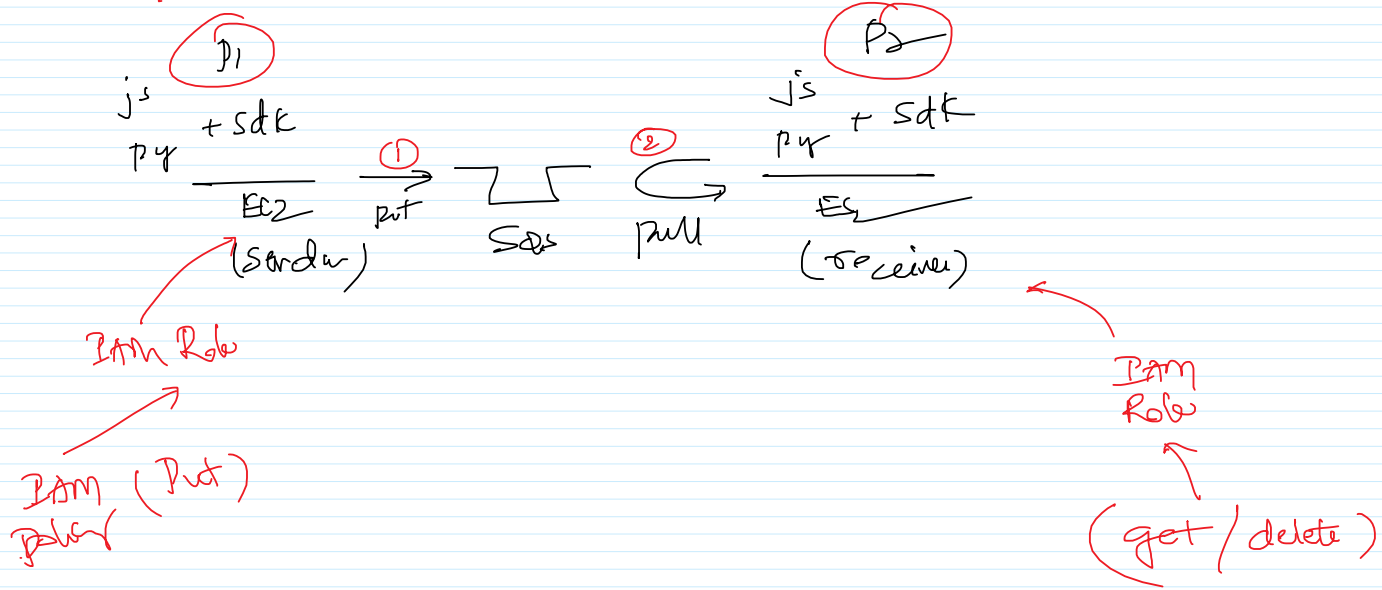
→ {
- Create Queue — ①
- Put msg Q — ②
- Get msg Q — ③

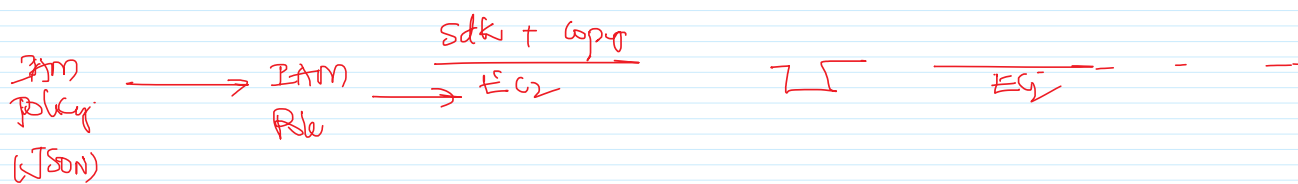






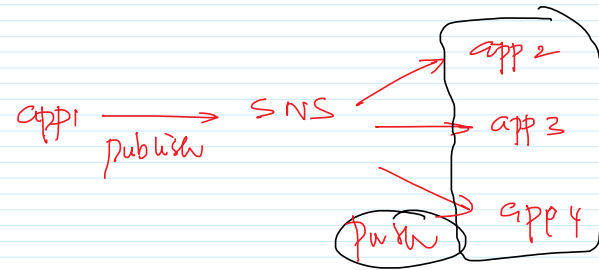
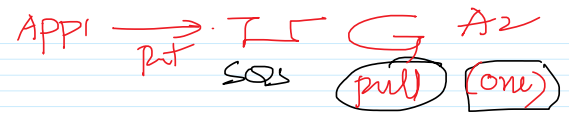
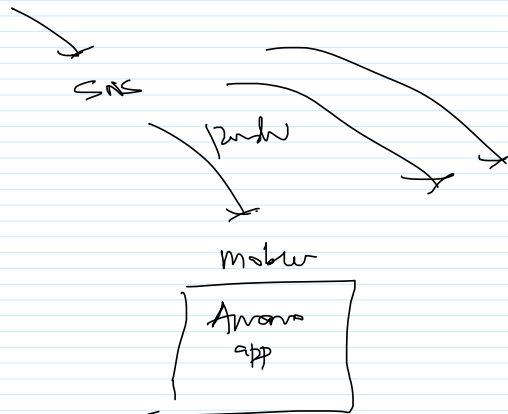
aws ss is
~~deleted~~

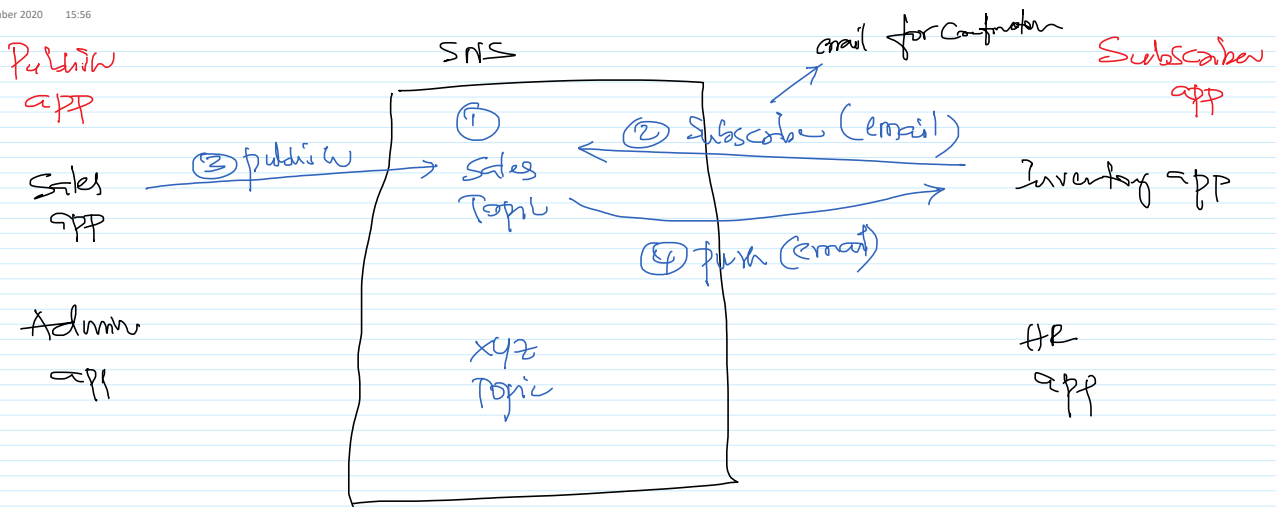




SNS (Simple Notification Service)

09 November 2020 15:53

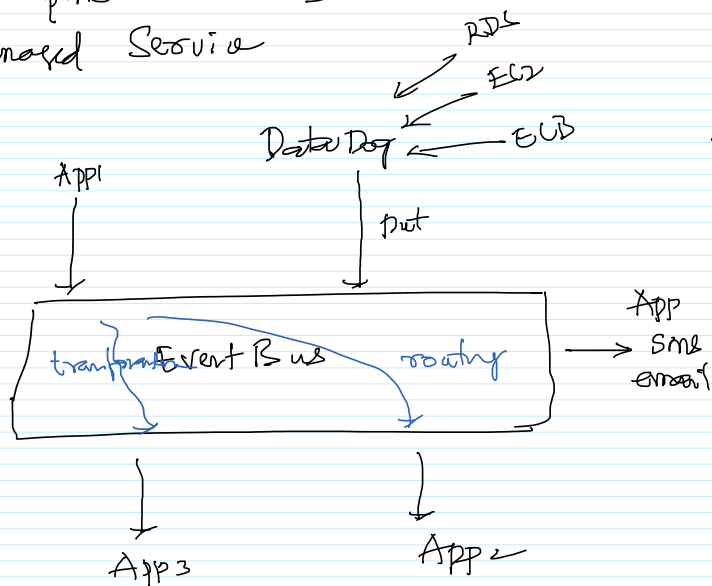




PubSub model

one app — subscribe to multiple topics
 one topic → can be subscribed by multiple apps

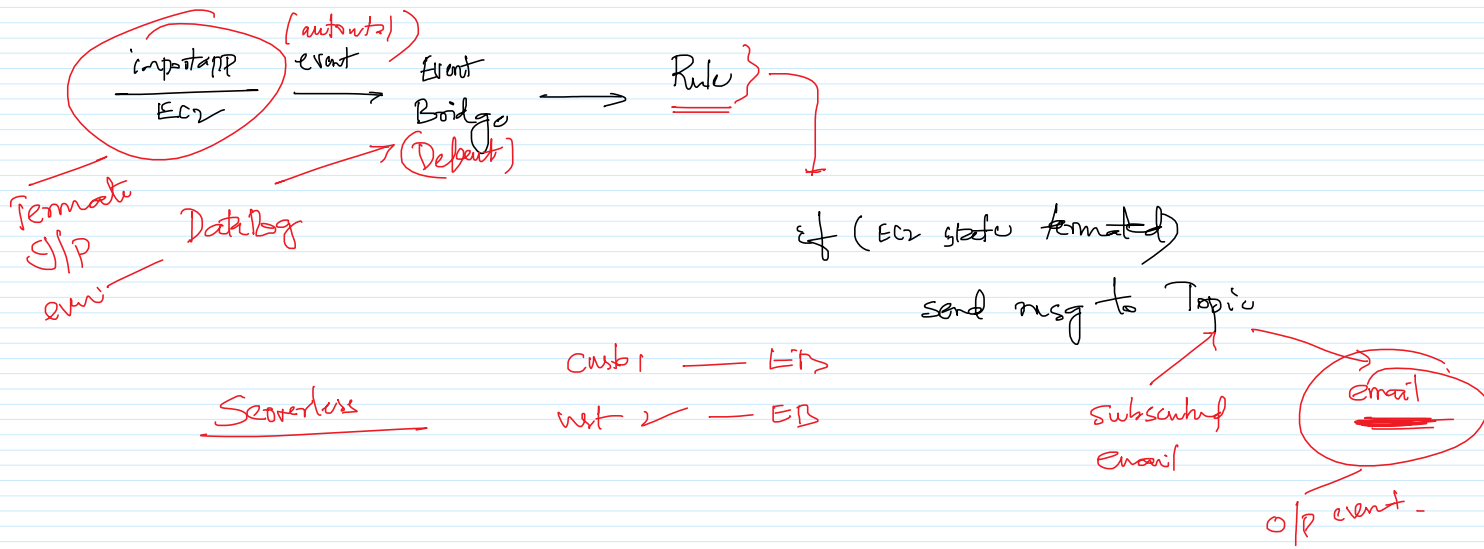
- Enterprise Service Bus
- Managed Service



A1 $\xrightarrow{\text{put}}$ SQS $\xrightarrow{\text{pull}}$ A2

A1 $\xrightarrow{\text{publish}}$ SNS $\xrightarrow{\text{pull}}$ A2

~~Make Soft
EC2~~



Cheapest
terminated
2m

- On Demand (OD) → ✓
- Reserved Instance (RI) ✓
- Spot Instances (SI)
- Savings Plan (SP) ← * ✓

WSC

Laptop

Linear

— per second billing with a minimum of 1 min

— 35s \rightarrow 1 m

— 1m 55 \rightarrow 1m 55

— 1h 00 \rightarrow 1h 10

Windows

— per hour billing rounded to next closest hour

15m \rightarrow 1 hr

3h 10m \rightarrow 4 hrs

Apt
6m → 1200 usd
12m → 1100 usd
18m → 1000 usd

↓
- claus
- visibility

1y or 3y

EMI

0% 50% 100%

no upfront partial upfront full upfront

	1	2	3
1y			
3y	4	5	6

cheapest

RI 3y to micro



seller

Ans
Market Place
(recharge)

Buyer &

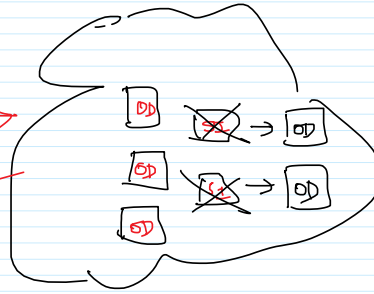
~~MRP~~

Spot Instances (SI) cheapest

09 November 2020 17:03

- Use cases
- dev / QA env
 - CI
 - PoC
 - Demo
 - learn

- 1) 3 - OD - EC2
- 2) 2 - SI - EC2
- 3) 2 - OD - EC2



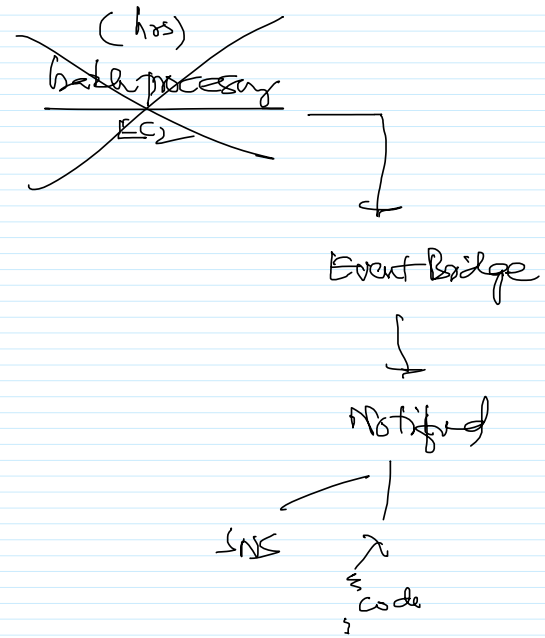
- programmatically
2 minute notice
- down log / data
 - stop app / sw
 - cleanup

big Data → t2.micro (1CPu/1GB)
nontr.micro (50)

(OD > SI)
priority
discarded

Production

- Batch Processing
- web site (stateless)



Stateless
Web Sites

EC2
EC2
EC2 } 90 EC2 - OP

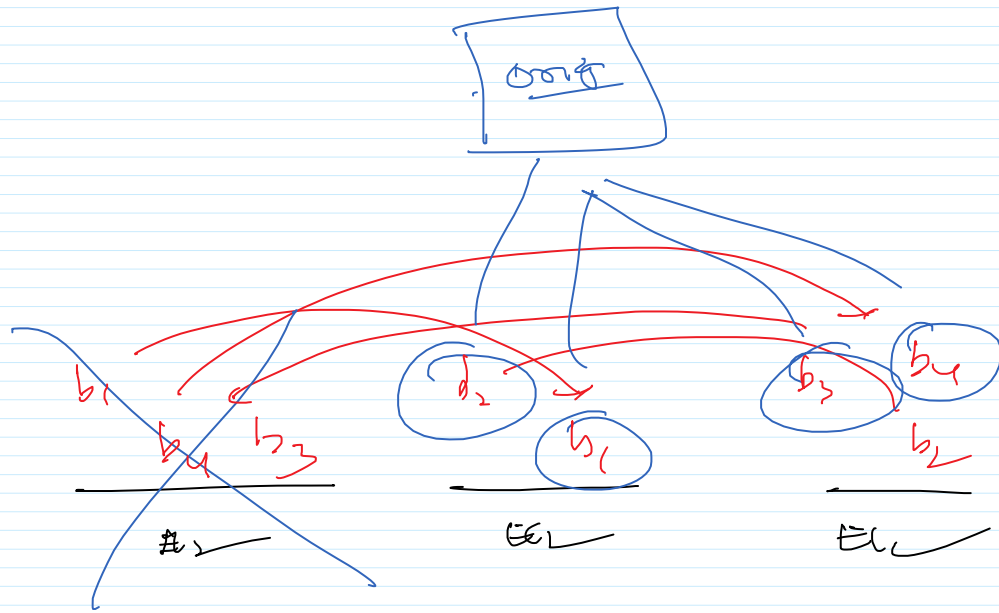
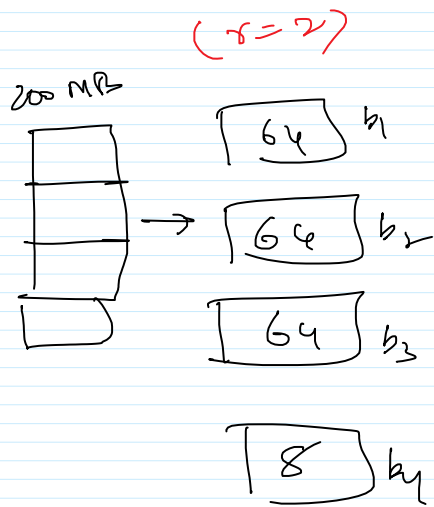
EC2 } 10 EC2 - SI

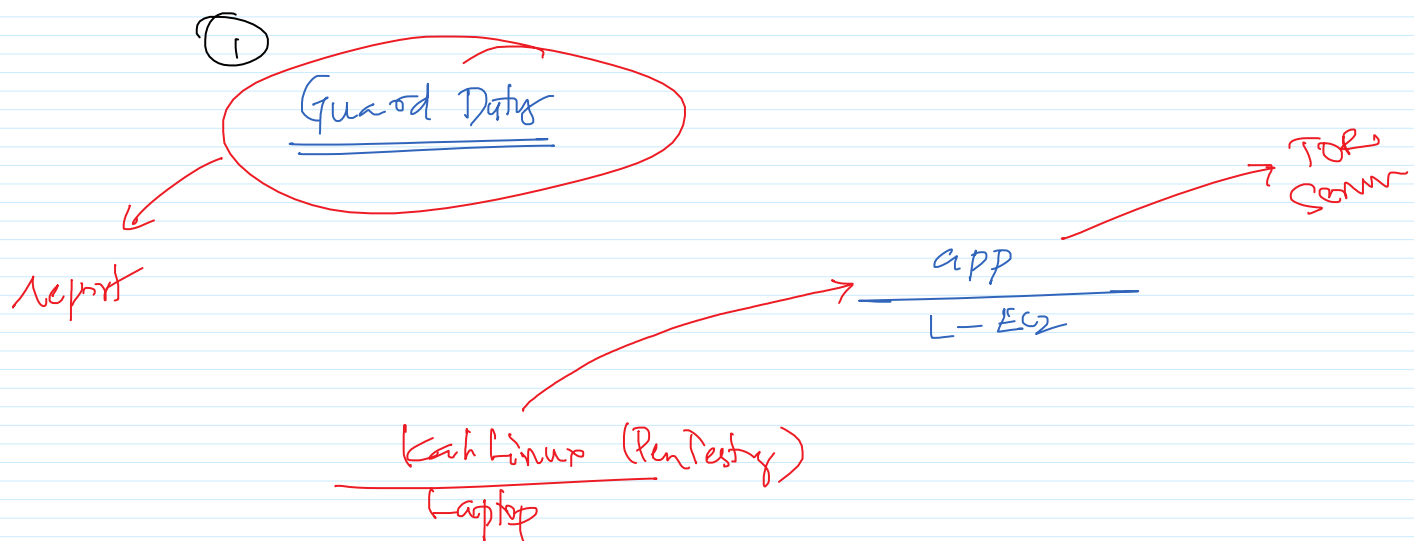
Commit - 1y or 3y

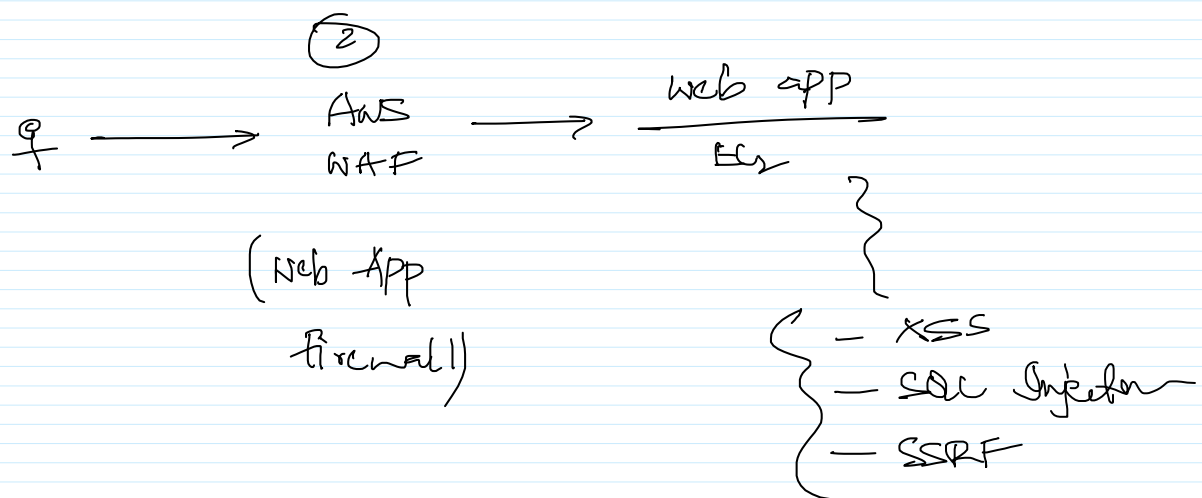
→ 100\$ every hour for 3y → 10Y.
- 10\$

90\$

150\$







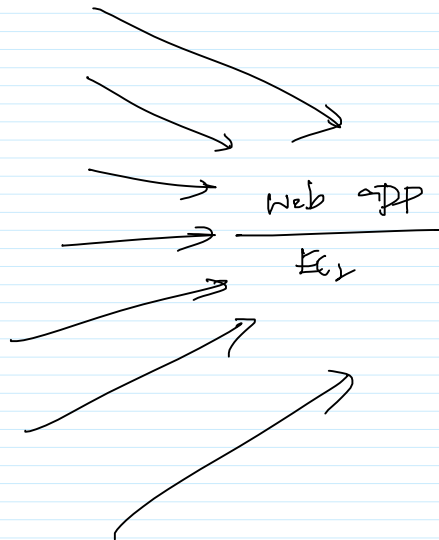
AWS Shield (3)

09 November 2020 17:23

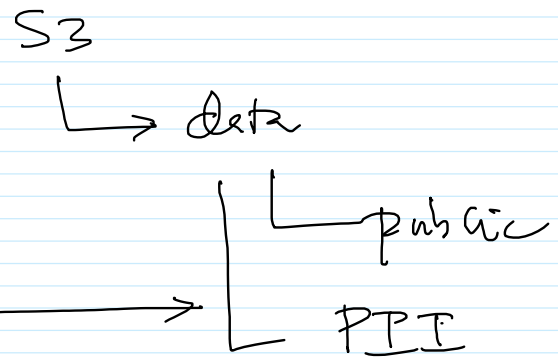
DDoS attacks

3000 USD/month

fake requests

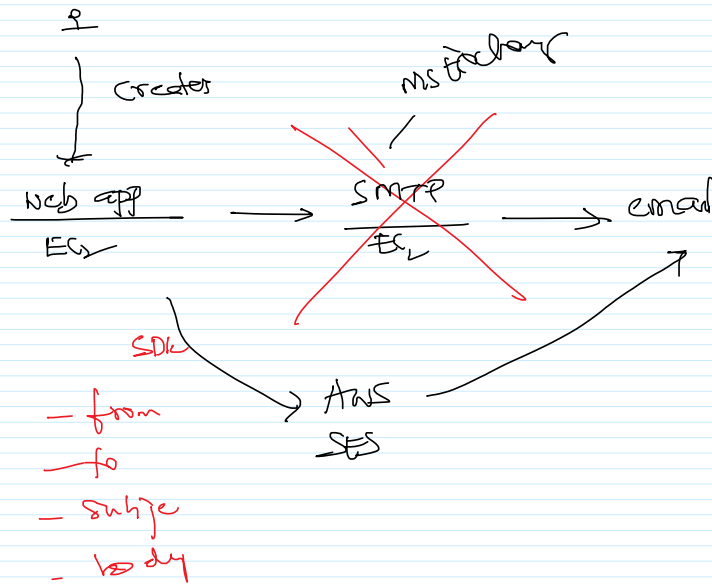


regular request (slow)



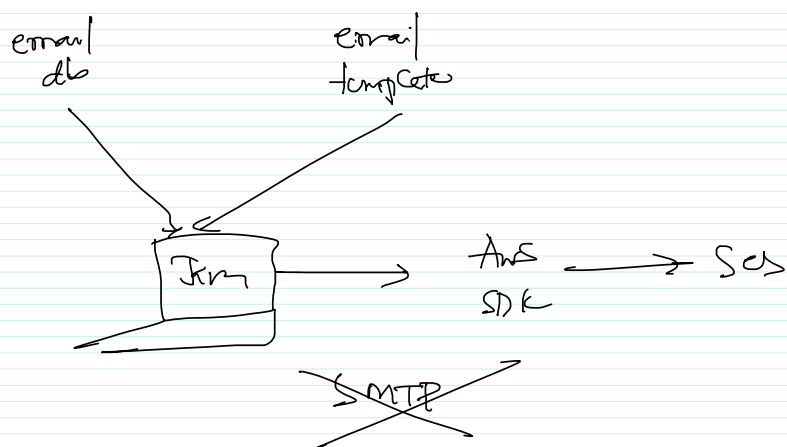
Aws (cloud Trail)

date / time → user → action → resource



for error (62k/month)
1/27 per email

- ~~- Wener~~
- ~~- upgrade~~
- ~~- patch~~
- ~~- HA~~
- ~~- scalability~~



{ - product
- projects
- upskilling/training

G2K - free
1/2 price email