Agenda

- Monitoring Services
- Serverless & Lambda

1) 목표 ——— 70,000

10% CPU

2) 모니터 → EC2

100% CPU

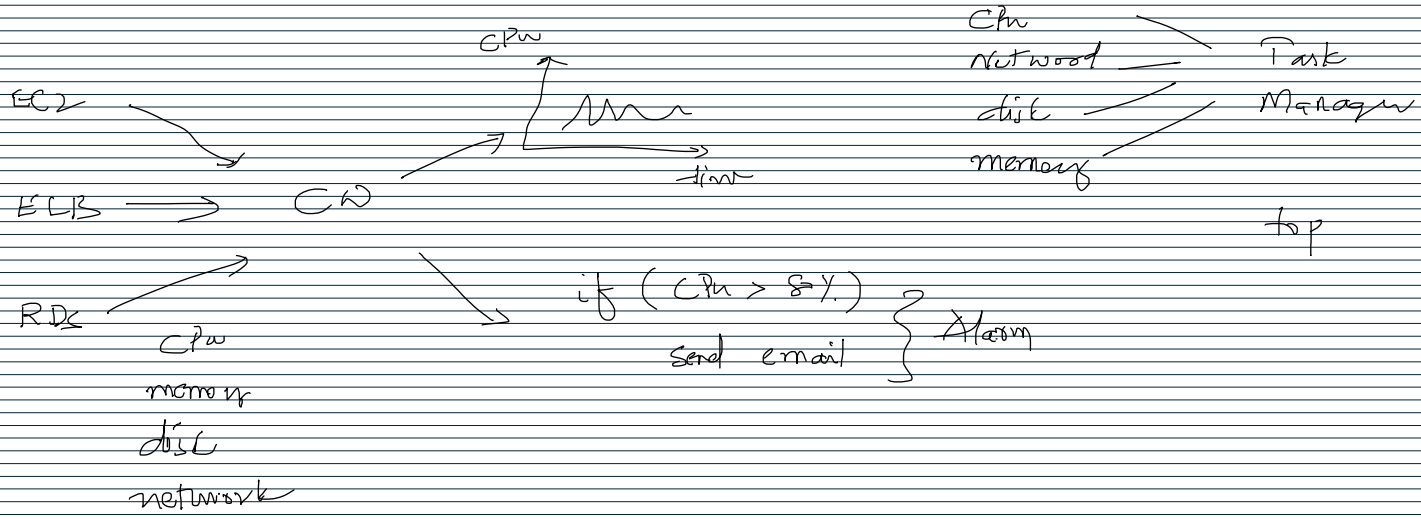
Scale up { if (CPU > 80%) add 2 EC2

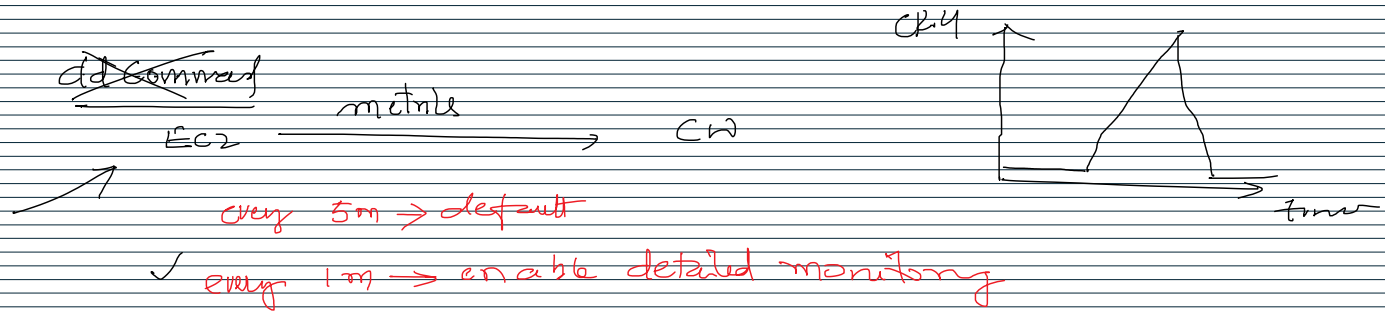
Scale down { if (CPU < 40%) del 1 EC

Auto Scaling

Cloud watch

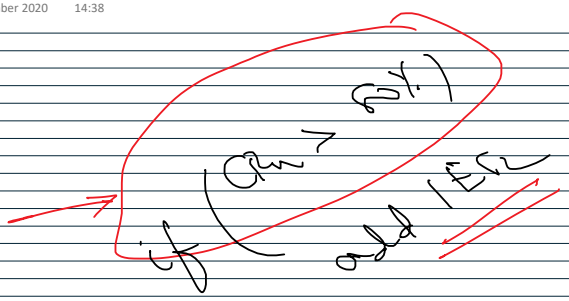
25 November 2020 14:19





every 5m → default

every 1m → enable detailed monitoring

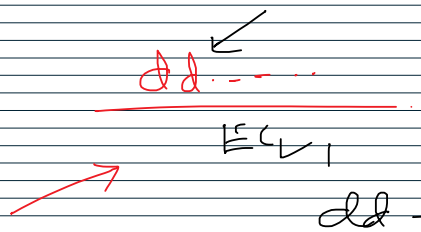


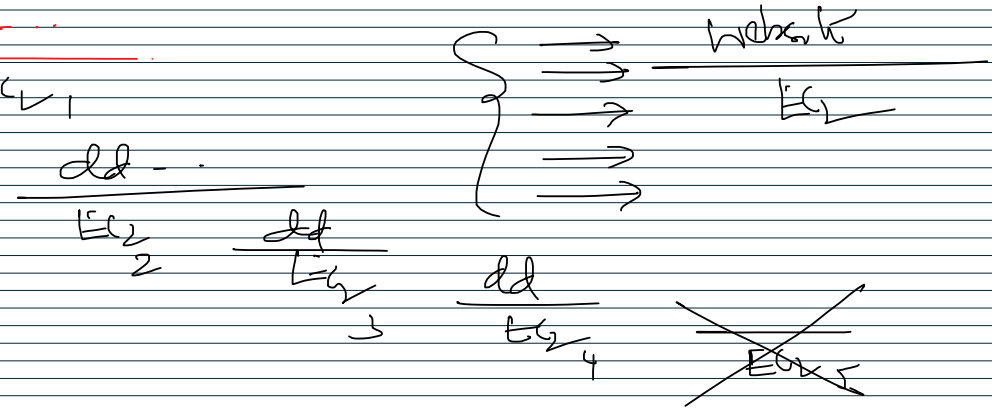
As

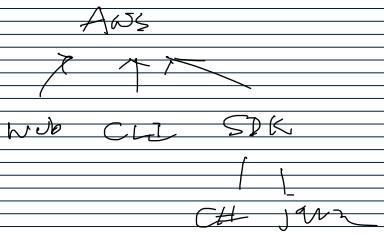
min = 1

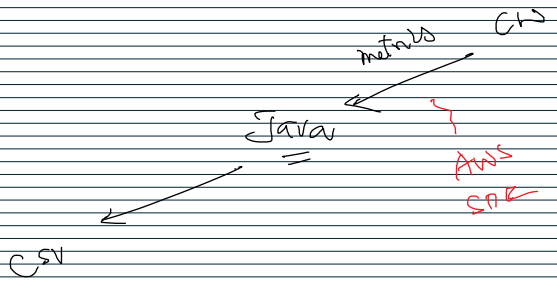
max = 4

Stmt = 1






AWS
Web
CLI
SDK
C#
Java


metrics
CW
Java
AWS
SDK
CSV

— H/w limit
— SPOF
— costly

Website → EC2

add more
- RAM
- CPU

} Vertical Scaling

WS → EC2

AS → Lin

LS → Ku

→ Horizontal Scaling

Serverless

25 November 2020 14:45

— we don't need to think about servers.

- SES (emails)
- SQS (integrating app.)
- SNS (Mobile)
- λ (Lambda)
- S3

- Capacity Planning
- Scaling
- HA
- FT

AWS

Servers

25 November 2020 14:48

Traditional Way

website webservice (SOAP, WSDL) REST SDK

java (color → b/w image)

EC2 - 2CPU → $ $
2GB RAM

Start → $$ → format

Representational State Transfer

new service
10 PM & 6AM
no calls

Lambda Way

Serverless
~~server~~
~~cpu~~
~~memory~~

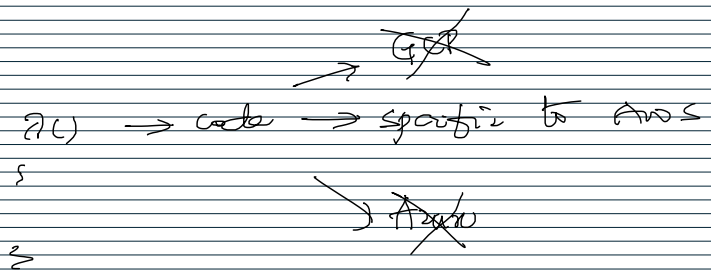
① ② ③

f()
{
color → b/w
images
}

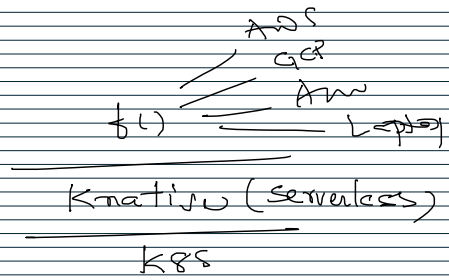
~~$$~~

Pricing

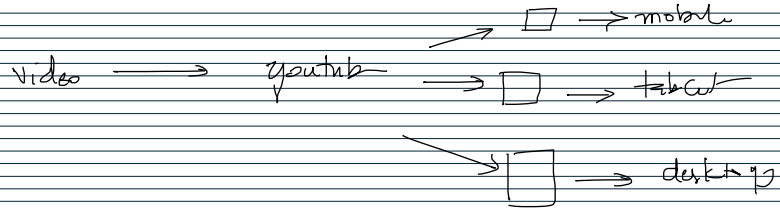
- number of invocations
- memory allocated
  128M → 3GB
- execution time
  15 m (max)

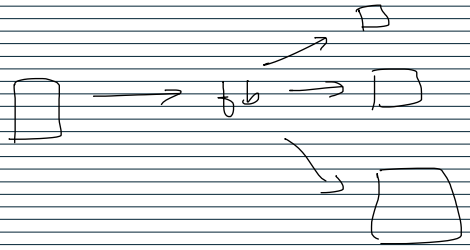


Cloud agnostic



Kubernetes


video
youtube
mobile
tablet
desktop


fb

S3-FA-policy

Event Driven

IAM R+W

S3 Bucket Input

Triggers

λ (default no permission)

O/P event

{

Download Image

② Shrink Image

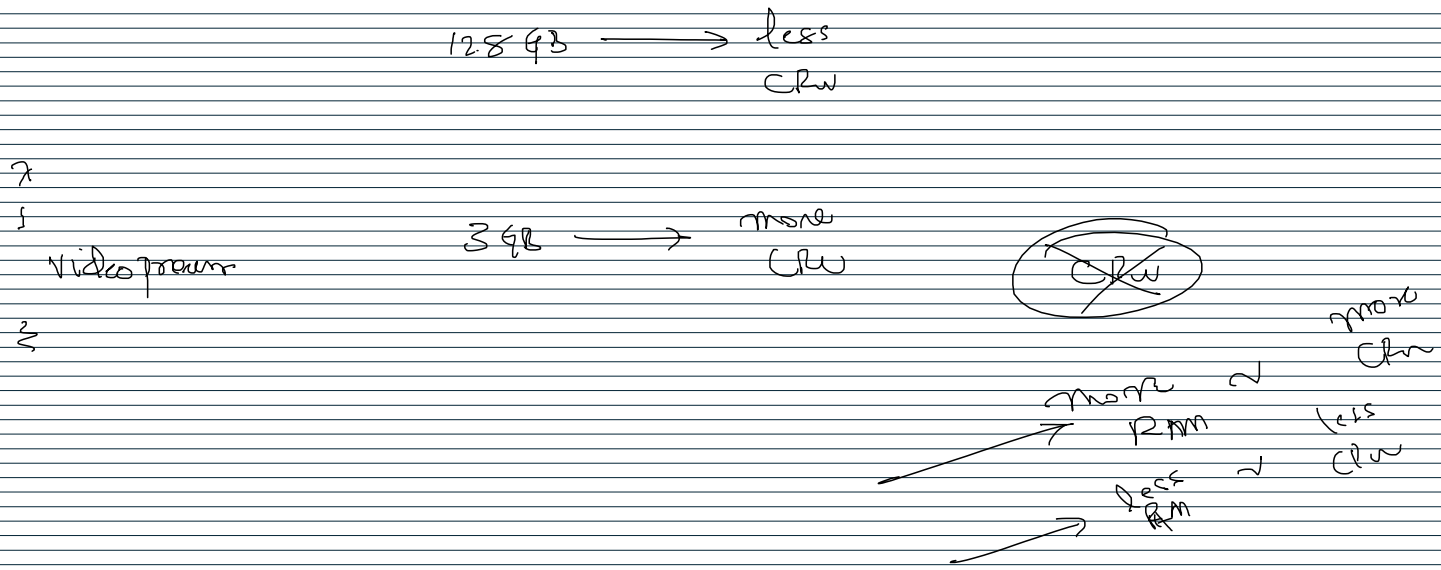
Upload Image

S3 Bucket Output

③

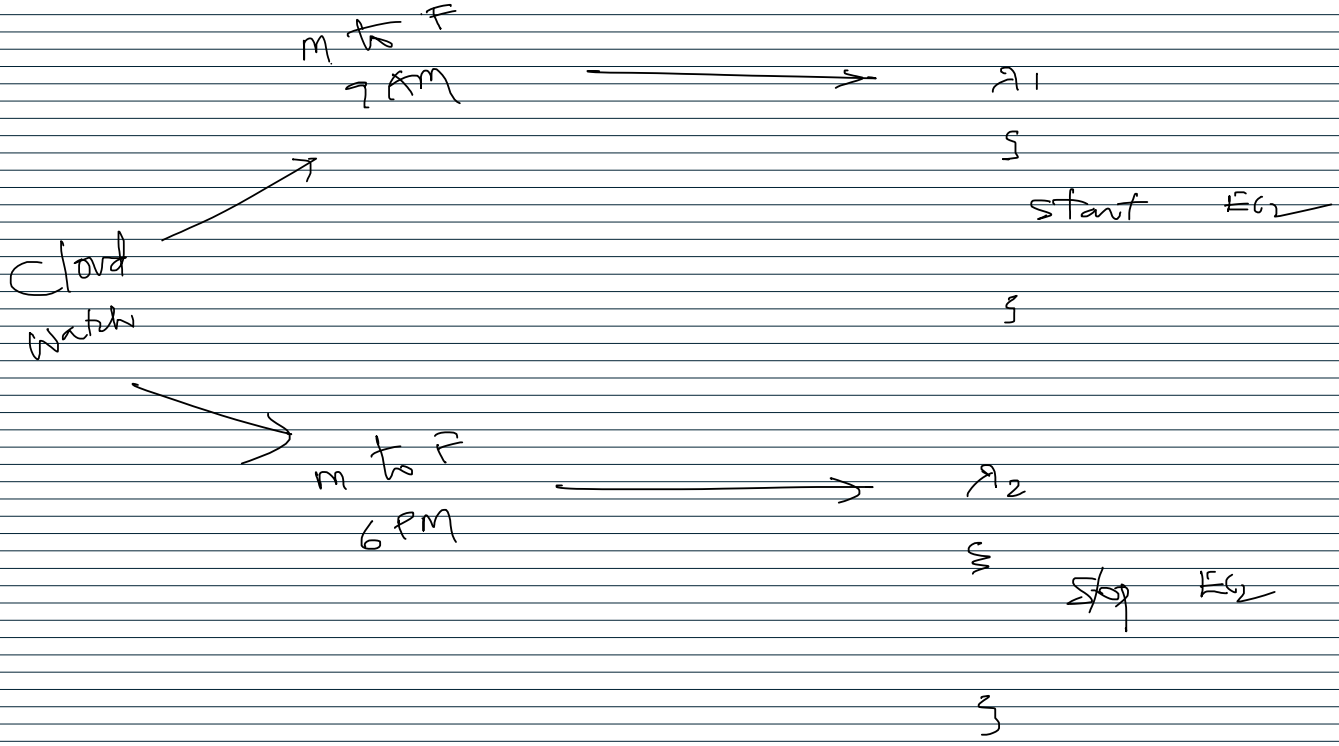
O/P event

}


12.8 GB
less
CPU
3 GB
more
CPU
CPU
Video proc
more
RAM
less
RAM
more
CPU
less
CPU

Schedule

25 November 2020 15:21



Cloud hosting

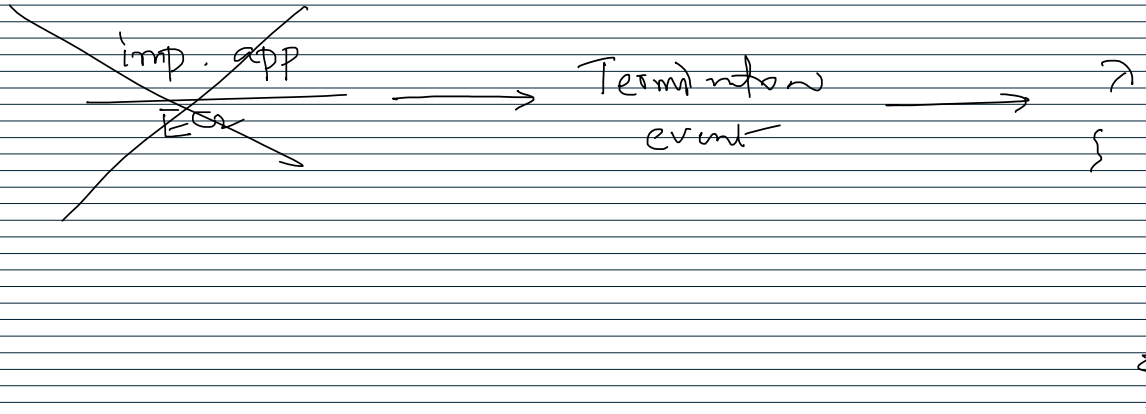
27/month ⟶ 7

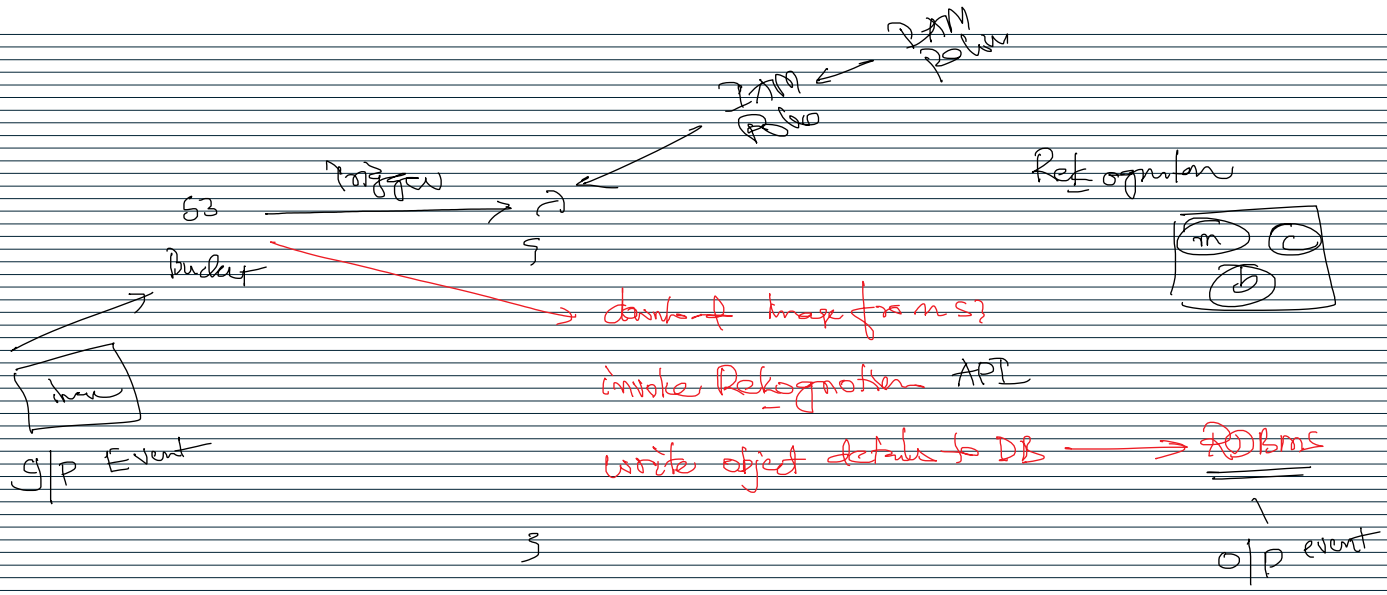
{

Cal payroll ⟶ DB

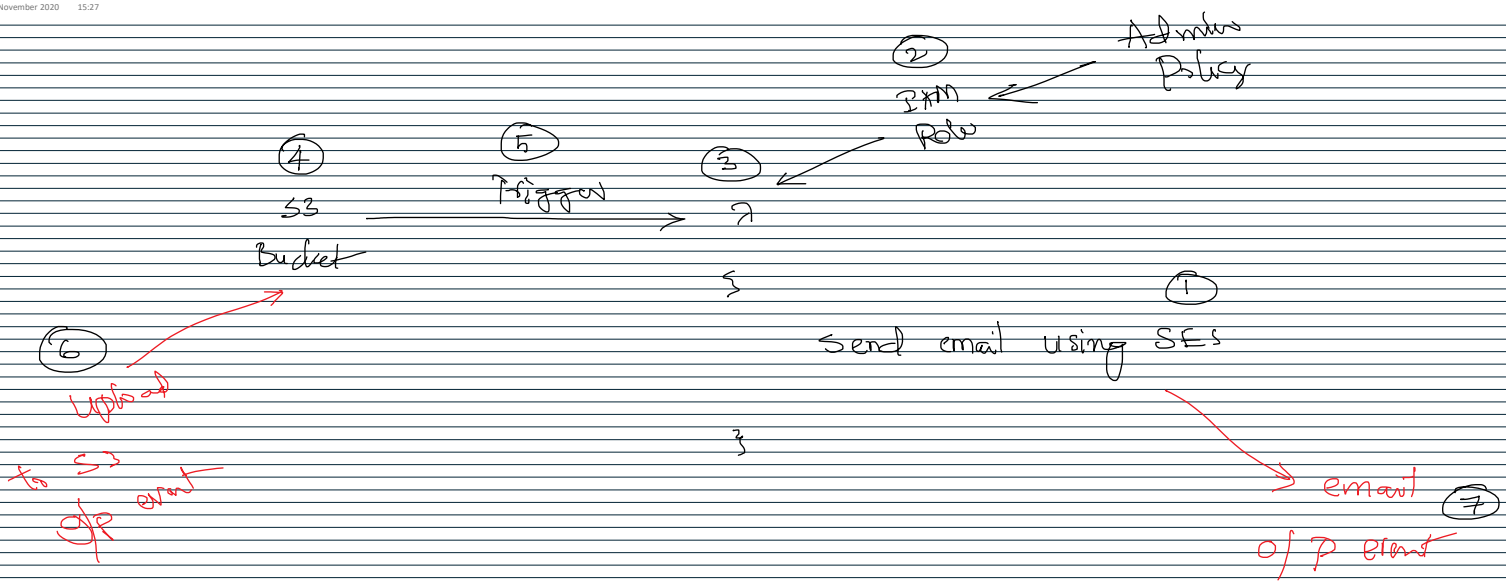
}

event driven




IAM Role
IAM Policy
Trigger
S3
Bucket
Rekognition
download image from S3
invoke Rekognition API
write object details to DB
RDBMS
o/p event
S3
o/p Event

25 November 2020 15:27

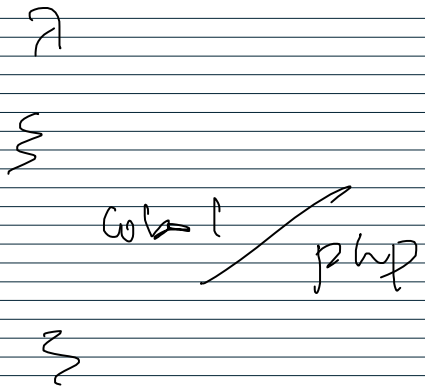


SES — verify the email address — send w
\ receiv

Create Layers

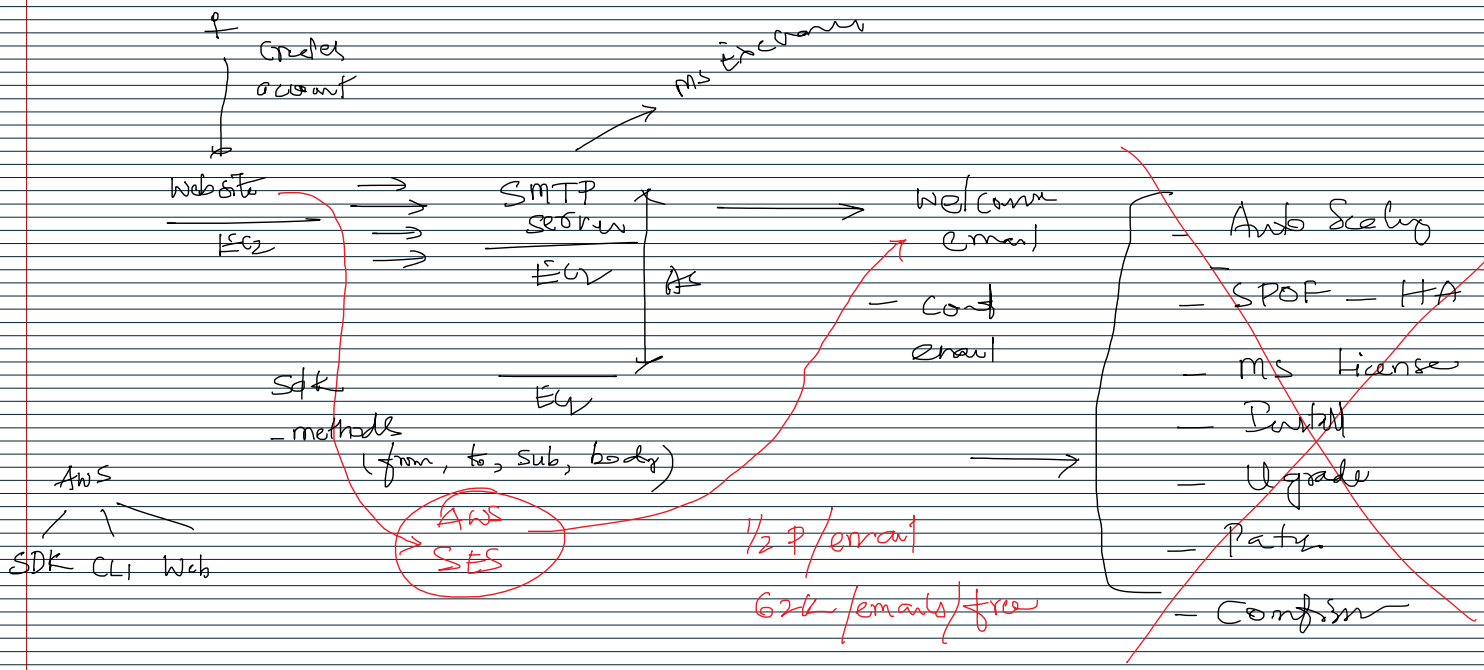
↓

Additional language support

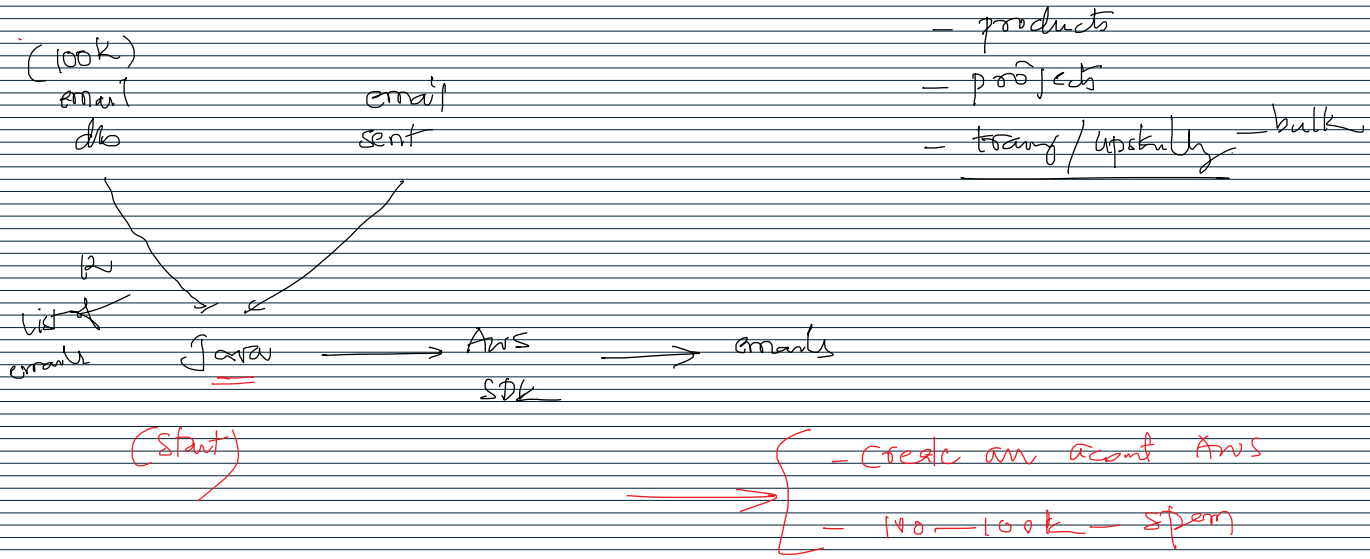


SES

25 November 2020 15:52



25 November 2020 15:57



(Start)

- Create an acnt AWS
- 1 to 100k — spam

AWS SES — ½₹

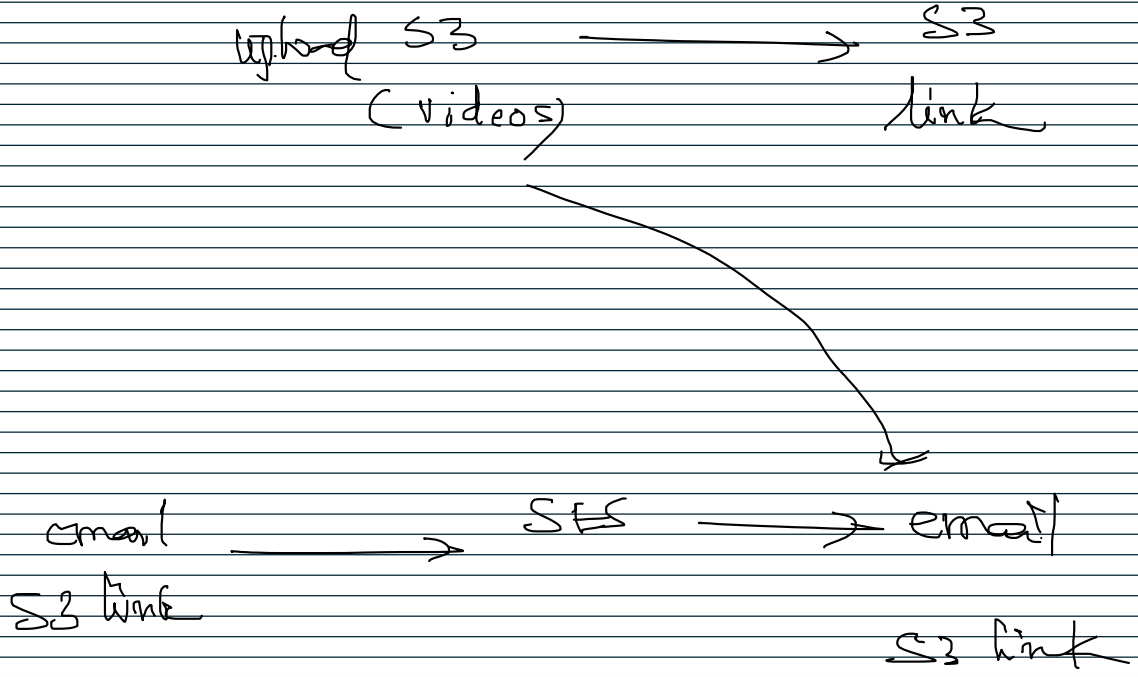
Mailchimp — 2 Rs

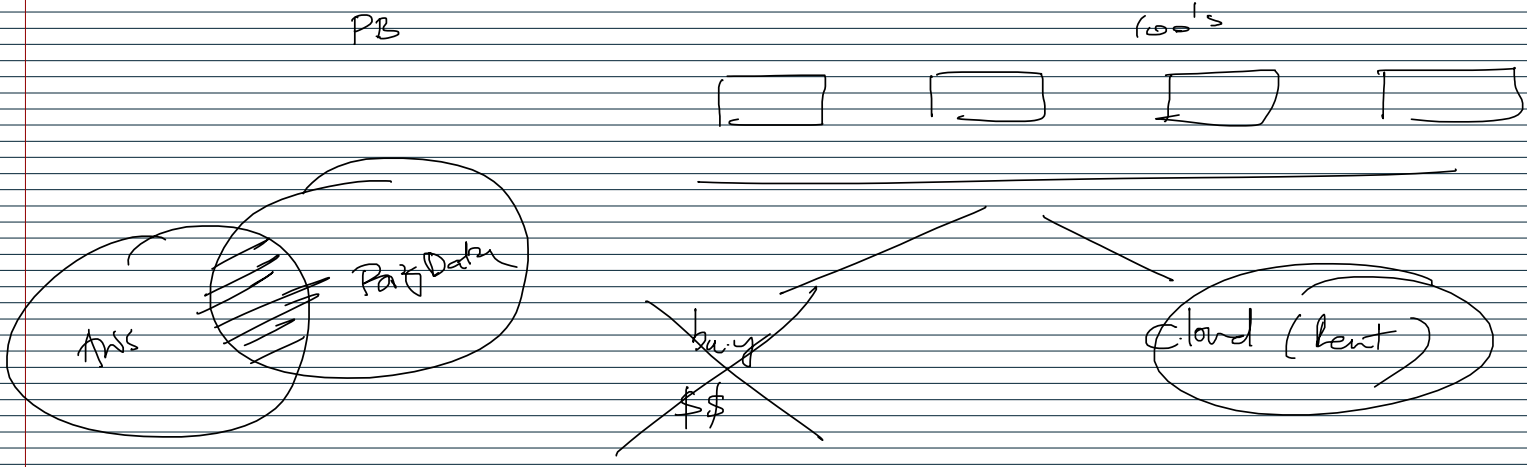
— how many opened ?

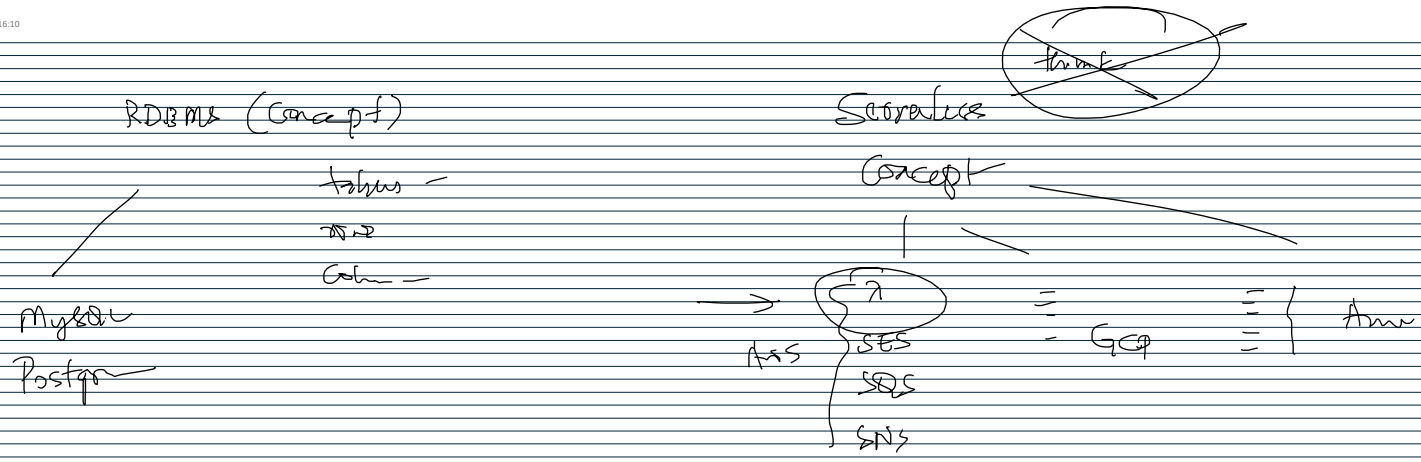
— how many clicked on link ?

— what try ?

— what is geo. loc. ?

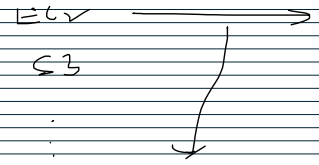

upload S3
(videos)
S3
link
email
S3 link
SES
email
S3 link


PB
Foo's
Apps
Pay Data
buy
$$
Cloud (Rent


RDBMS (Concept)
tables
MySQL
Postgr
Serverless
Concept
λ
SES
SQS
SNS
GCP
Azure

Py — 20y

Java — 12 y

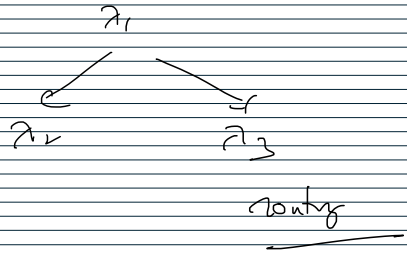


Cloud — 5–6 y — 10%

200 +

RDBMS

NoSQL .net



$$\frac{?}{\lim_{L \to EG} \quad}$$

OPM

$$\frac{?}{\lim_{W \to EG} \quad}$$