Session 7 (AWS Cloud)

IAM (Groups
IAM Users
(Share Credentials as well)

1) CSV filter part for Directories

CLT (Command Line Tool).

awk

⇒ IAM (who will Have Read/Access/write, what

⇒ Create a Group ⇒ Add all Users ⇒ Add Security Policies.

Effect/Allow

onboard a user
⇓
login with this user

Attach permission to either group / User
⇓
Recommended

⇒ Not able to find any Policy where to provide any Permission.

1) Can Create Custom policies.
⇓
IAM
⇓
Policies. (list).
⇓
Create Policy.

If not found anyone inside the policies provided by Amazon

easy (Drag&Drop)

write JSON object

Add Action ⇒ EC2 (Show all actions)

⇒ Run instances (info part).

IAM will always go to less Privileges / least Permissions.

Resource * → everything

↳ arn Number. (Unique).

["*"].

One same policy can be attached to Multiple Users.

Error

EC2: Run instances

⇒ S3 Service (Object Storage Service).

⇓

Similar to Google Drive (where we can store our Data).

Name should be Globally unique

5GB of free space

In S3 bucket we giving bucket Name as well (Unique url in the world).

Allow Access ⇒ Permission (Blocked by Default).

⇓

edit ⇒ Save the changes.

Manage Data ⇒ using Bucket Policy.

⇓

Who can access the Data.

Permissions

ACL (Access control lists)

Bucket Policy (Deepluel).

JSON objects

Principal ⇒ User: arn Number.

⇓ Who can access the Bucket Data or IP Address

⇒ Bucket Policy Generator — To check who can access the Data, and all other info

AWS policy Generator./(Website).

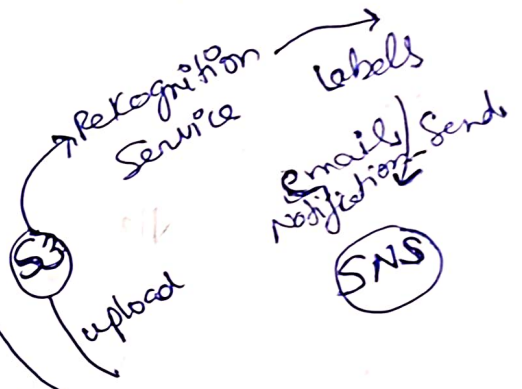
ARN (Amazon Resource Name)

(Bucket ARN No).

~~Imp.~~

Practical Implementation

* ReKognition (AI Models). (Detection) Part.



⇒ Upload a pic

* Use Case Wanted to create Application.

Anyone upload new Image to S3 upload. Must be immediately. processed and send to ReKognition Services (Not Manually Need to come).

Lambda ⇒ FAAS (function As a Service).

Serverless Architecture

{ Program (Business logic)

def add ()

{ ≡

}

Directly can execute on Lambda.

Give your code (will run it in my Infrastructure).

↙ Deploy the code on their infrastructure.

↓

Charge for amount of time / that application Has been run.

Charging as per usage

→ Serverless architecture (AWS is Managing in case of Lambda).

→ Will provide scaling as well.

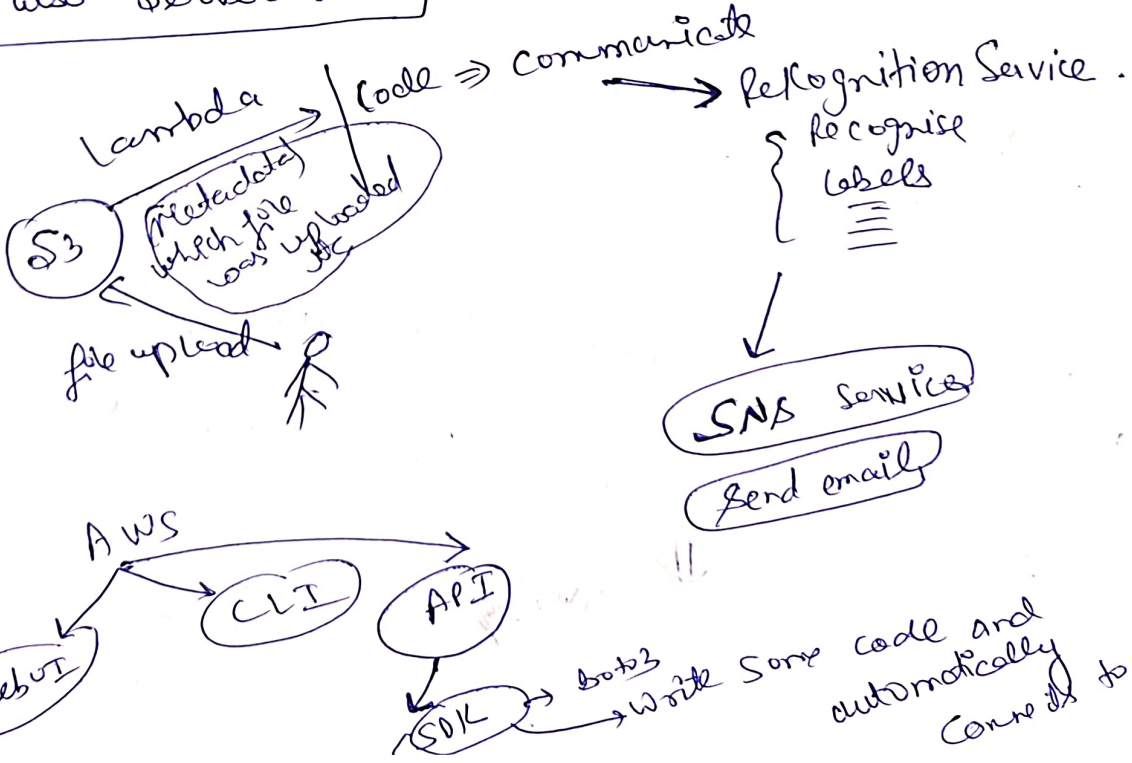
⇒ IAAS (EBS, EC2 etc). (High flexibility).
(Infrastructure as a Service)

⇒ PaaS (Platform as a Service).
Don't have to Manage any part of Infra. on top of this provide a platform where they can build, test & Deploy.

⇒ SaaS (Software as a Service).
(email Server) etc (Google is Managing it).

Types of

S3 is also Serverless.



Trigger in Lambda
(At a particular event)

(S3) from the list.

⇒ (S3) to trigger Lambda (Permission should be provided to S3 to invoke Lambda function).

↓

IAM (Need to set permissions).

(Lambda logs) (Global service)

↓

(Cloudwatch) (To monitor logs of other services).

(Configuration ⇒) Permission ⇒ Role Name.

(IAM Roles).

~~IAM~~ (IAM Users)

⇒ We have Default Timeout (3 sec) in lambda function.

⇒ (SNS (Simple Notification Service))

⇒ To send some type of Notification at a particular event.

⇓

(Topic) ⇒ (Standard) ⇒ Encryption (Data Moving from Lambda to SNS).

→ Now asking to create Subscription

⇒ Pre sign url Block public Access on Bucket.

Can also set expiry on this.

Need to Authenticate Ourselves first.

CLI Command

AWS-CLI aws cli download

aws ↴

⇒ aws help ↴

⇒ aws s3 help ↴

Need to Authenticate

aws configure ↴ Credentials ↴ User Main.

⇒ aws s3 presign = filename --expires-in 3000 (ms)

Same thing can do using SDK as well.

Security Credentials ↴ Access Keys. ↴ CLI

⇒ IAM ⇒ S3 ⇒ lambda ⇒ SNS

. Any Custom Policy I can add inside IAM (Policies).

Need to Attach Rekognition Service to lambda Detect Labels Policy Attached.