

Authentication



Authentication Vs Authorization

OAuth

JWT

2nd MS → User Authentication Server
(Auth Server)

What is Authentication?



Validate Identity / Someone
Identify someone

< Proof of Identity >

↳ Passport

↳ Aadhar Card (KYC)

Know Your Customer

→ Live Lecture

(Enrolled learners)

Scales.com

Free Blogs

(Everyone)

Master classes

(Everyone)

Assignment &
Contexts

(Specific Learners)

PSP

(Enrolled
Learners)

Instructor Ratings

(Finance Team)

(HODs)

Authentication is a process of

knowing who the person is

Authentication Who is trying to access some resource

Authorization

Proxy Attendance

↳ IP Address ✓
+
Location ✓
+
Mac Address ✓

How can we stop this?

or

How we would have prevented this?

MFA

①

(2FA) → static (password)
+
dynamic
(OTP)

②

Security Questions

③

Session limit &

Alerting and
that

$$\frac{\cancel{500}}{\cancel{2000000}} \times 10^{-3}$$

$$0.25 \times 10^{-2}$$

SNKRS

Travis Scott Ag 1

Auth

Open Authorization

One of first Intocol used for
Authentication &
Authorization.

OAuth 2.0

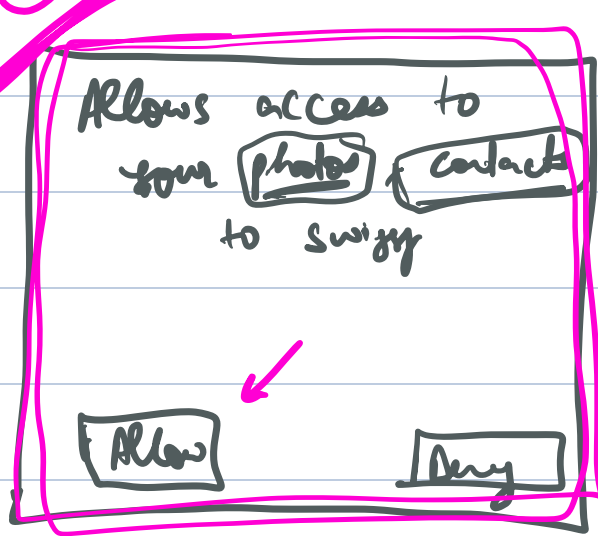
login with Google

← Authentication
proof of
Identity

login with Facebook

②

Authorization →



Flow Diagram of OAuth

④ Auth Token



② Ask for permission

Google

Auth server

User

③ Approval

①

④ (Approval) + Token

⑥ Validation

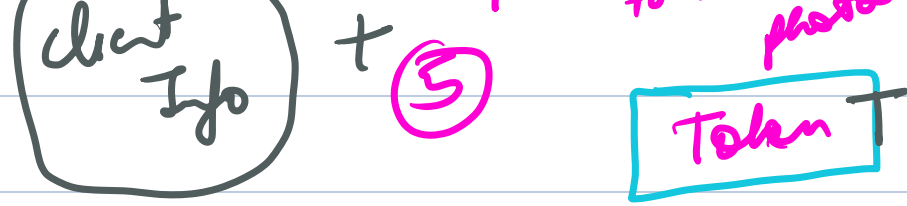
Client

Resource Server

Google

T'

Give me access to Anurag's photos



Student → client

letter (Application)

Principal → Auth Server

Signed the letter → Token

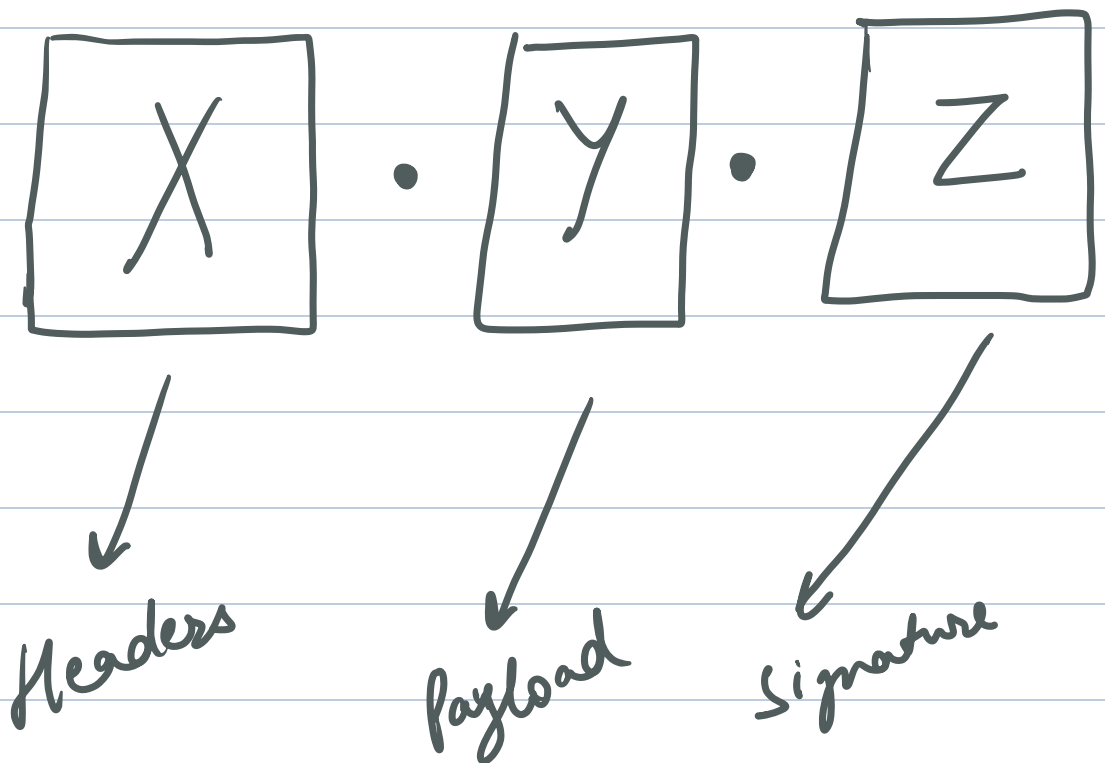
class Teacher → Resource Server

Millions

Gen Time	Exp Time	client	user Id	Token

JWT

JSON Web Token



Headers is the name of some encryption Algorithm

RSA , HS256 in

64 Bit Encoded JWT format

Headers = "HS256"

Base 64 Encoded Headers = xxx

payload contains data of client,
user, access, token etc
in Base 64 Encoded Format

payload : {

genTime : 17 Dec 2025

expTime : 17 Jan 2026

user Id : 5

client : zoneto

⋮

}

Base 64 Encoding on payload

= yyy

Signature =

HS256 [(encoded Headers) + "." +
(encoded payload),
secret]



zzz

JWT

Signature →

HS256 (xxx.yyy,



zzz

JWT = xxx.yyy.zzz

Google
Auth
Server

Google
Resource
Server

READ

key Vault (Azure)

Secret

READ

Secrets Manager (AWS)

