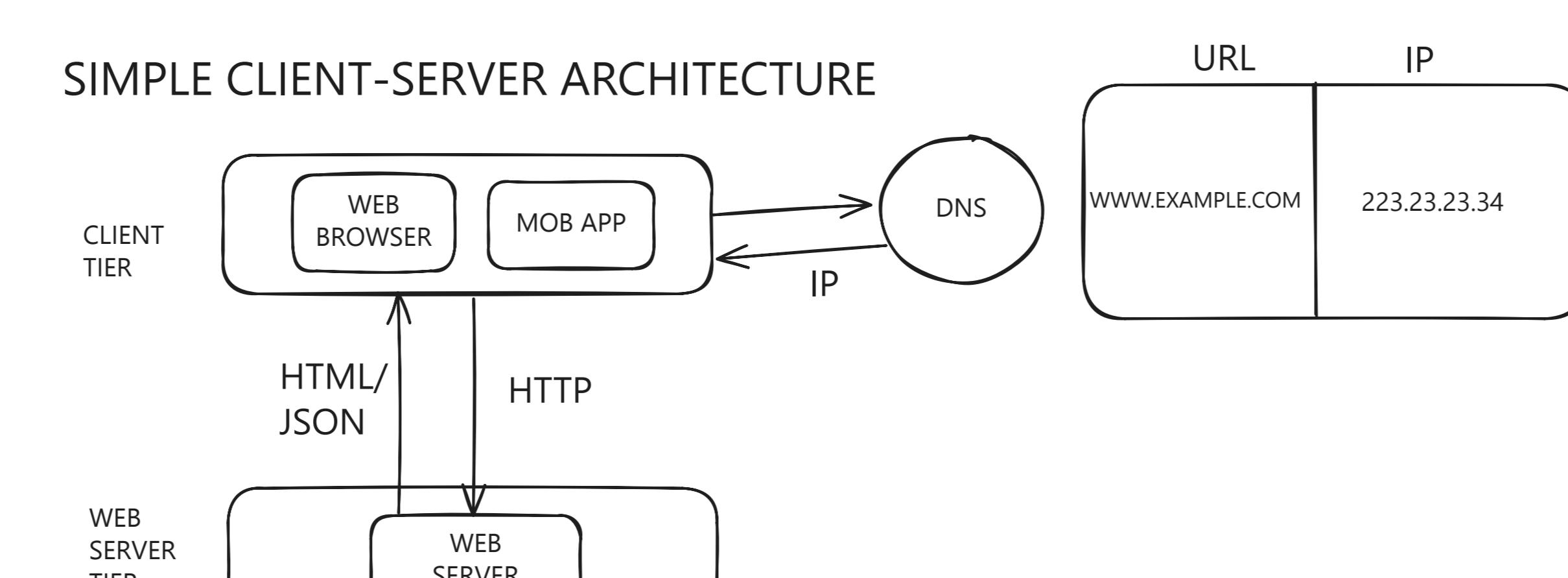
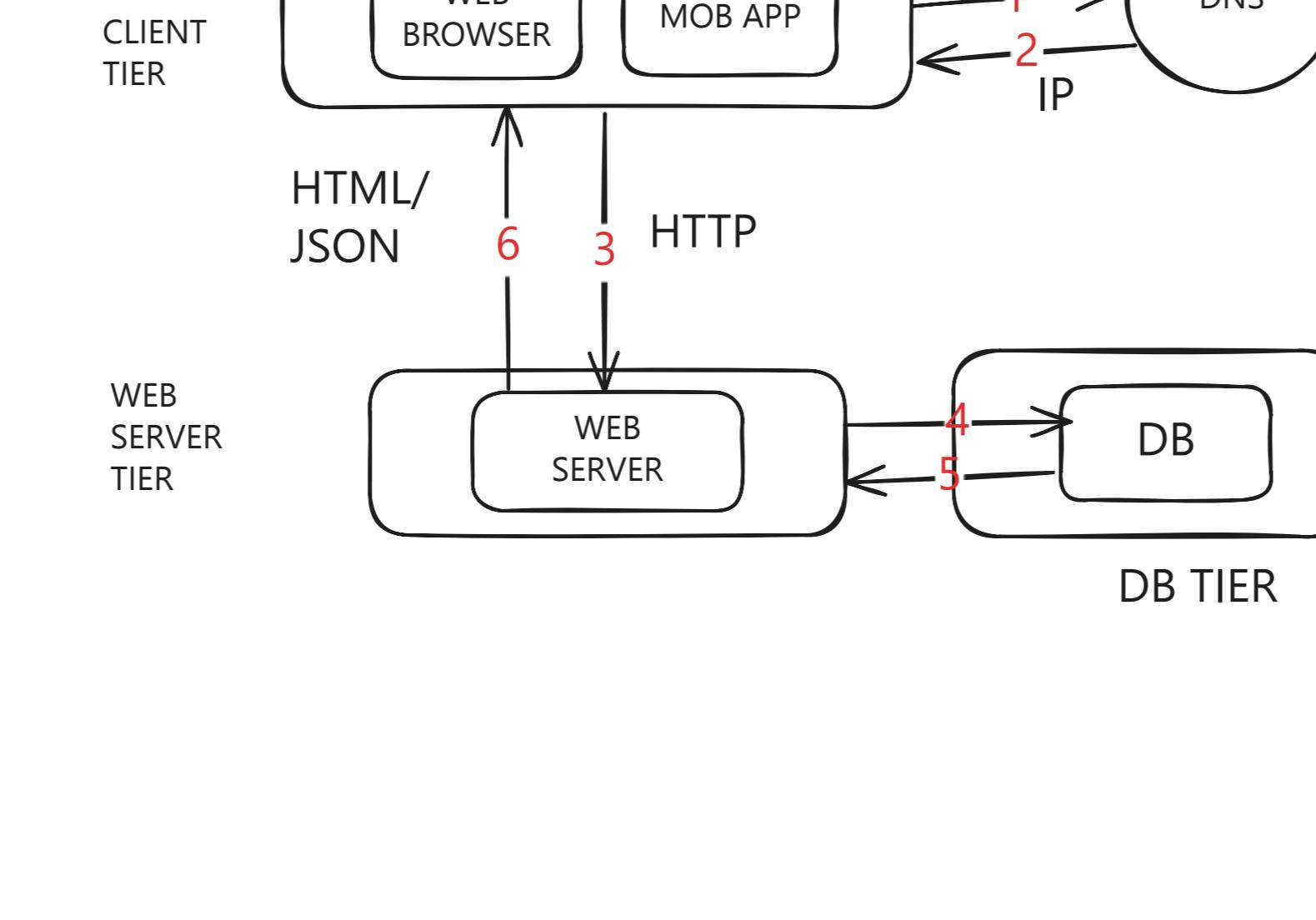


ANYTHING THAT WE WILL DO IN HLD IS TO MAKE OUR APPLICATION SCALE BETTER



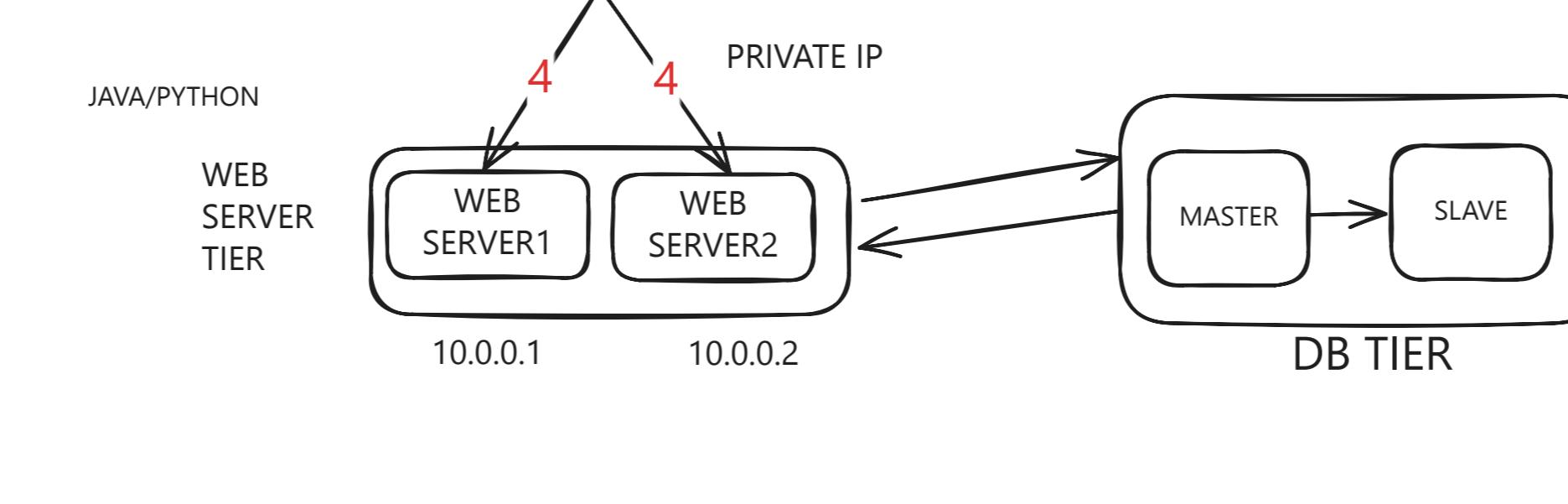
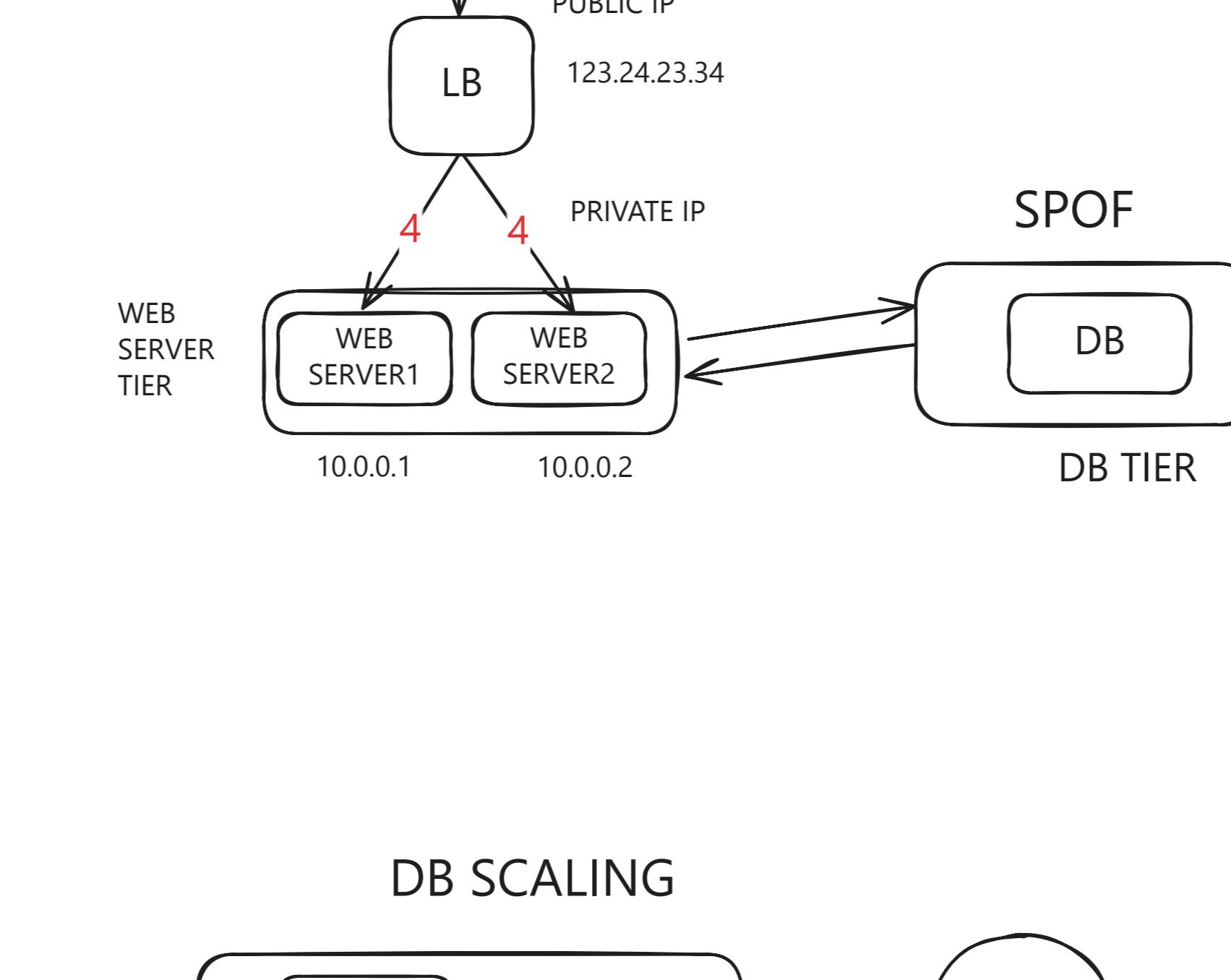
HTTP :
POST, GET, PUT ETC
URL : WWW.EXAMPLE.COM
HEADERS:
BODY : {
"USERID" : 1,
"NAME" : "ADITYA";
}



WHICH DB TO USE?
RELATIONAL : SQL BASED : MYSQL, POSTGRESQL, ORACLE SQL
NON - RELATIONAL

KEY - VALUE STORE : AMAZON DYNAMO DB
COLUMN BASED STORE : CASANDRA DB
DOCUMENT BASED STORE : MONGO DB
GRAPH STORE : INSTAGRAM, FB, TWITTER ETC

EVERY DATA CANT BE STRUCTURED

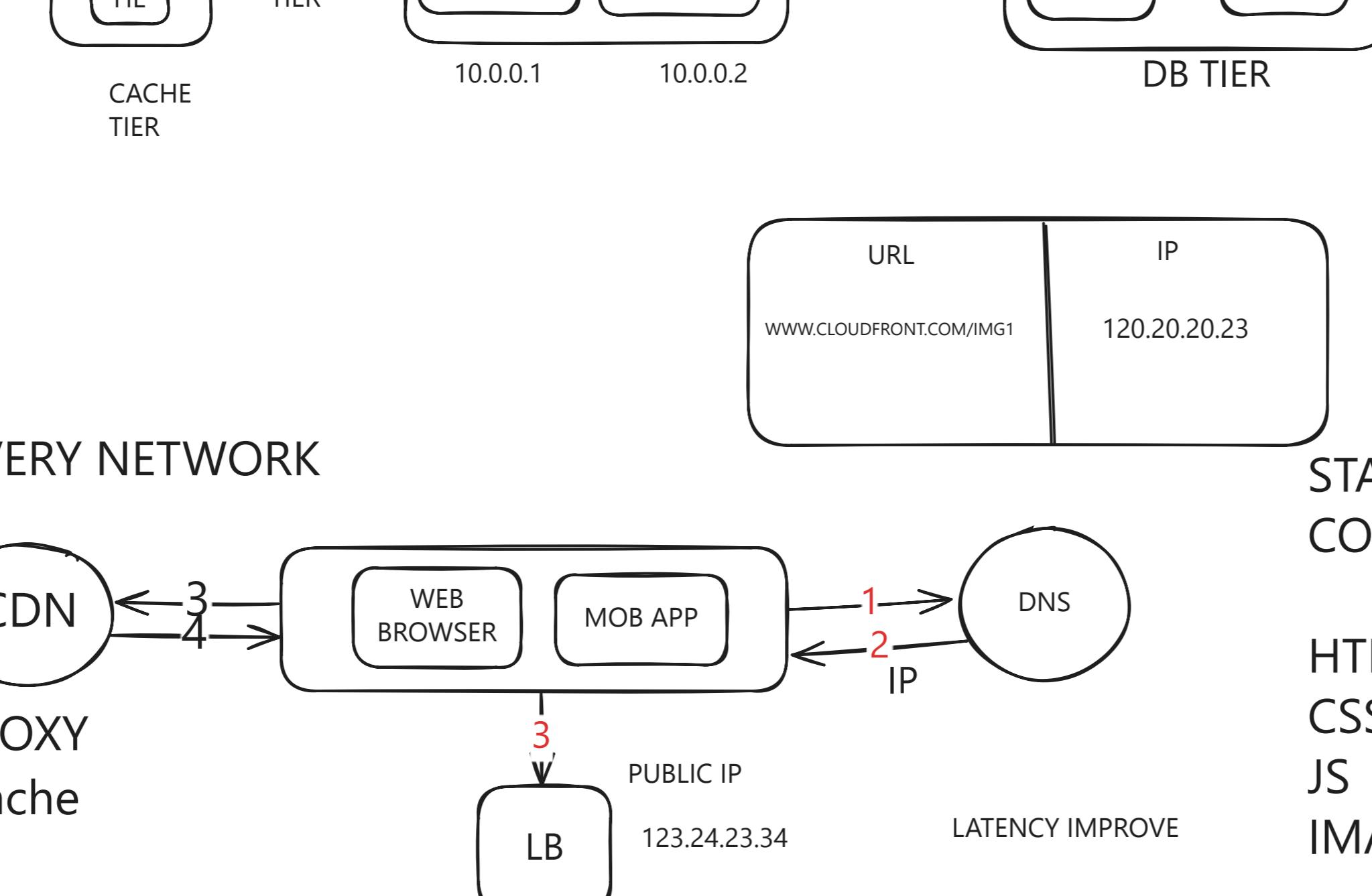


MASTER SLAVE ARCHITECTURE

READ : SELECT
WRITE
INSERT
UPDATE
DELETE

STALE DATA

USER USERID

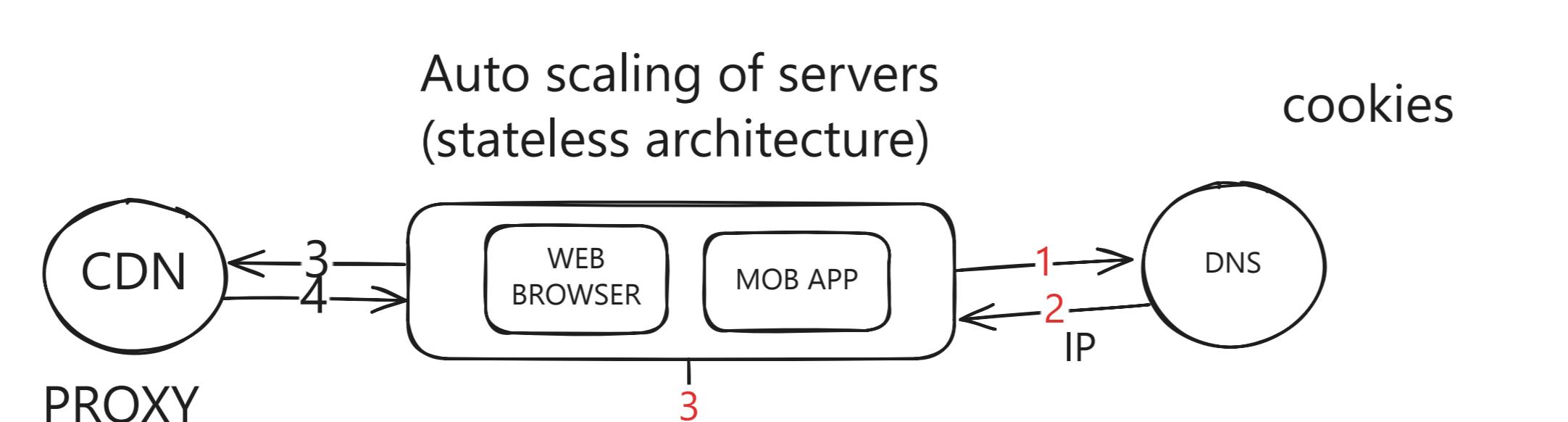


CACHE MISS

CACHE EVICTION ALGORITHM

CONTENT DELIVERY NETWORK

AMAZON : CLOUDFRONT
AKAMAI



STATIC CONTENT

HTML
CSS
JS
IMAGES

Auto scaling of servers (stateless architecture)

cookies

server pool

shared DB

DB TIER

sticky sessions : stateful architecture

HTTP : stateless

stateless architecture

LATENCY IMPROVE

cookies

server pool

shared DB

DB TIER

multiple data centres

Multiple Data Centres

PROXY cache

GEO Enabled DNS

DC1

DC2

shared DB

India

USA

Kafka, RabbitMQ (Asynchronous)

web server

producer

DeQueue

consumer

MESSAGING QUEUE

PUB-SUB (publisher - subscriber model)

PROXY cache

GEO Enabled DNS

DC1

DC2

messing Queue

workers

India

USA

SHARDING (DB partitioning)

Horizontal scaling

Data De-Normalization

MOD % 4

erwe

aditya das

abhay sdas

DB0

DB1

DB2

DB3

CDN

PROXY cache

GEO Enabled DNS

DC1

DC2

shared DB

India

USA

messing Queue

workers