

Lecture 1 - 5th Sep 2025

Tasks:

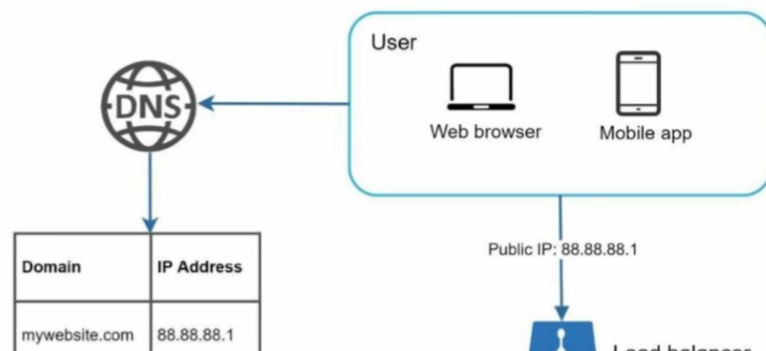
- Get account on few popular clouds
 - Amazon AWS (EC2, S3)
 - Use AWS coupons if first time user
 - Build a static website using S3:
<https://docs.aws.amazon.com/AmazonS3/latest/ml>
 - Create a Virtual Machine using AWS EC2

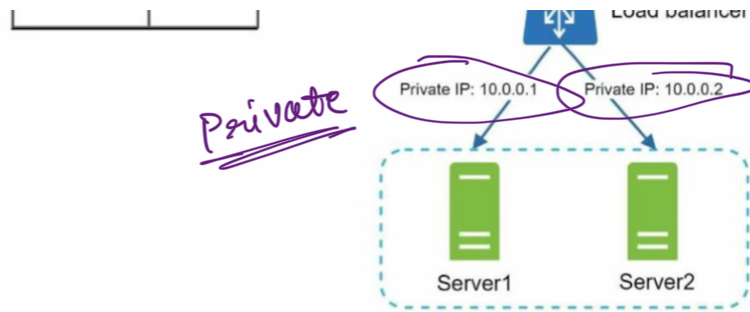
- Book : Designing Data Intensive Application

- Paper : GFS .

1. If web service is Bottleneck .

Scaling the backend of Webapp

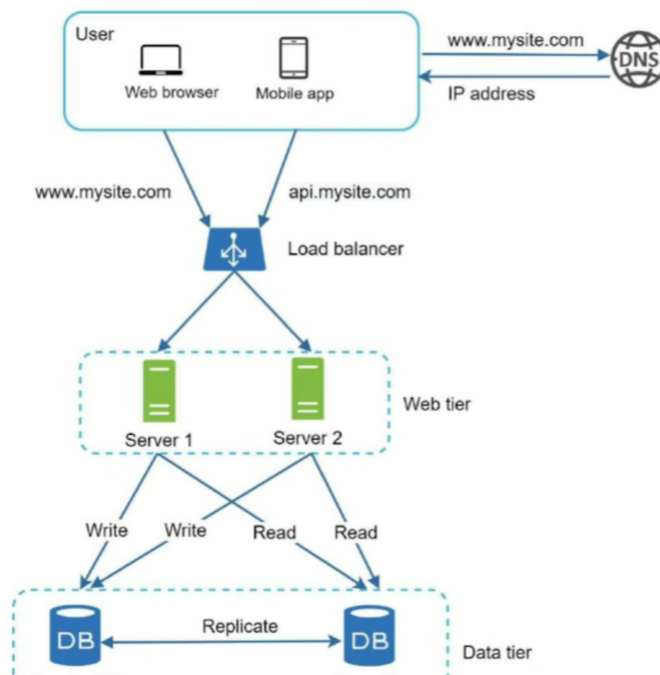




One GREAT advantage : DNS should NOT have ip for server & only

Should have IP of Load Balancer

2. If db is Bottleneck.



1. If "Read" operation :

- You can direct req. to master OR slave DB.

2. If "Write" operation :

- make the "state change" on master DB.
- Stop all ops.
- Replicate Master & Slave DB.

EC2 steps

1. AMI - Amazon Machine Image.
2. Machine Type.
Size : Micro / Nano
3. Get KEY (private)
4. Setup Firewalls & decide which protocols do you want to keep it open for
↳ SSH into it

5. Delete the machine

5.1 Kill resiliency

5.2 Kill server

6. Setup Notifications for Billing

✓ Paper → GFS : Google File System