

How to approach System Design

SWIPE

BY ARPIT BHAYANI

How to approach System Design

Approaching System Design is simple!! but before that...

What is System Design?

Broduct and Customer Needs Business A & & & & &

Requirements

The system could be

- an application - End-to-end feature

- a microservice - pure engineering solution

- a library - common library support - a handware - embedded

When someone says design a system, it could be one or all of

a high level architecture design - Macro, Bird's ege view

a logical design - Business logic, Algorithm, Data Structures, et

a physical design - Stonage, I/o, Hardware, Capacity Estimation, Data Backup & Restone, Pipeline Syskm

How to approach System Design?

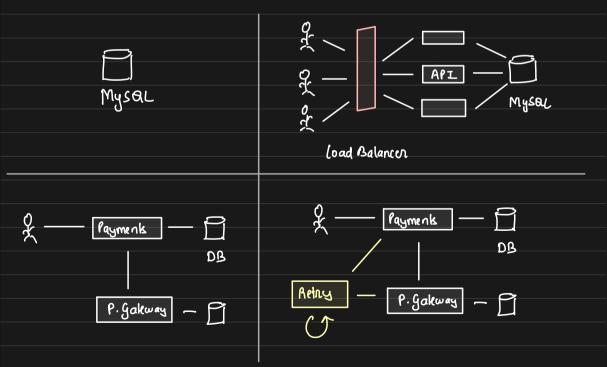
The one two approaches that I have used in last 10 years of my career

1. Spiral



You decide the cone and stant building anound it.
eg: stant with storage, then API, then Queun,

Use this when you are pretty confident on the decisions you are making



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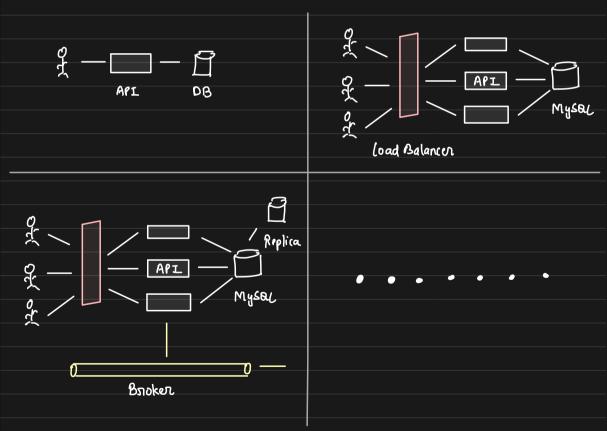
2. Incremental MVP



You start with a simple and basic Day of architecture, and then evolve it eg. Sac DB, one API server & a user

Over time scale each component to

handle the scale at the next level



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Key pointers:

1. Every system is infinitely buildable

.... Fence it

Restrict the scope

2. Seek clarifications from Senior

3. Ask critical question that

challenges the design decisions

or interviewer

One thing that always works

Divide and Conquer Start small, build on top

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