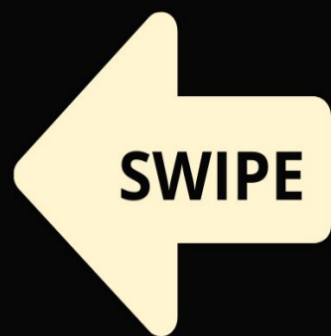# What is System Design

SWIPE

BY

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What is System Design?

set of requirements

    ↳ decide architecture

    ↳ decide components

    ↳ decide modules

} how they interact with each other
↓
To solve the problem*

"Product Development" ← almost

Why is it so popular?

Every single "tech" product is a "system" this has been "designed"

companies are building product and need you all to design it

Why understanding system design is important?

- this is what people do at work

- everything is practical

- you can see it from Day 1 of joining the company

- once you grow in your career,

    you will spend 80% of time doing this.

System design is hence relevant for literally everyone!!

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Side effects of System Design

- it will make everything else uninteresting

- you solve real problems, not something made up

- break down problem statement

- re-wires your brain to think in a structured way
    - ↳ considering all possible cases

        to deliver a great user experience !

What will we do when we design a system ?

- break down problem statement into solvable sub-problems

- decide on key components and responsibilities

- decide on boundaries of each component

- touch upon key challenges in scaling it

- make our architecture faulttolerant and available