ArchDays · October 29, 2021

ARCHDAYS

The design section in interviews

Checking a candidate's system design skills

From the hiring funnel to how to learn this

What we'll cover

- The hiring process and why we run a design section
- What the candidate gets out of it
- How the section and a typical task look
- How we score candidates, and how to learn this

Part 1

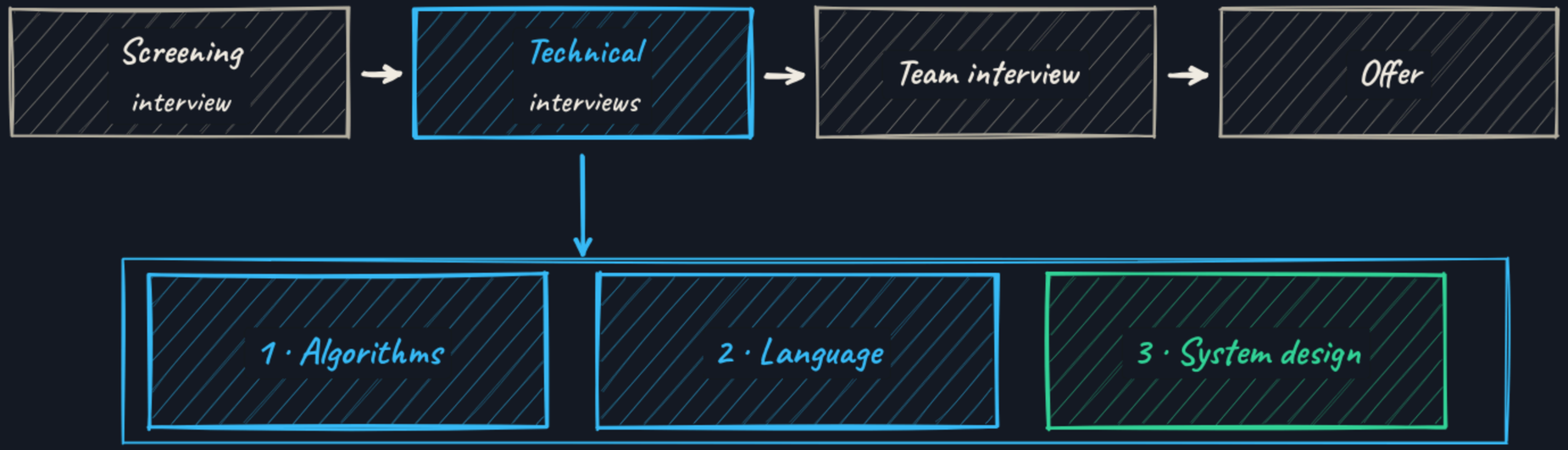
01

What the hiring process looks like

Using a backend developer as the example

System design is the third technical section

Funnel · Hiring stages



Part 2

02

Why we check this at all

From the company’s side and the candidate’s

Decisions are decentralised — teams design for themselves

Why we check system design skills

- 16M+ customers, growing about 35% a year
- A multi-product company with its own IT verticals
- The products merge into an ecosystem
- Headcount grows and architecture decisions decentralise

Every outcome of the section gives the candidate something

Candidate | What they get

What the candidate gets out of it

- Aced it — we can offer more interesting terms
- …both in pay and in the work itself
- Did fine — a team where they can grow
- Did not pass — personalised feedback

Part 3

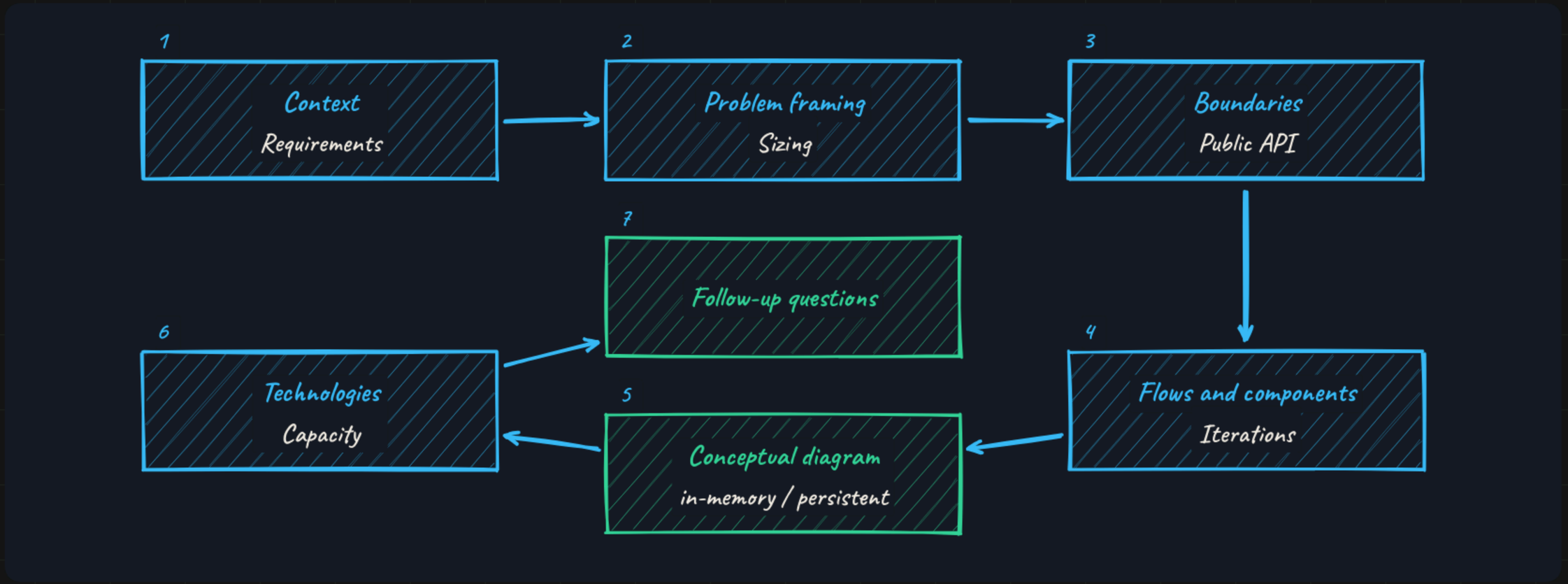
03

What the design section looks like

Seven steps and a typical task

The interview unfolds in seven steps

Section 7 steps



The diagram gets worked through in three passes

Iteration Three passes

Data flows and system components

- First the happy path
- Then load and non-functional requirements
- Then corner cases — when parts of the system fail
- The output is the conceptual diagram

We draw in Sketchboard.me, in Software Sketching mode

Task Sketchboard.me

What a typical task looks like

- The problem statement
- Functional and non-functional requirements
- Load parameters
- System boundaries, scenarios and the public API

Part 4

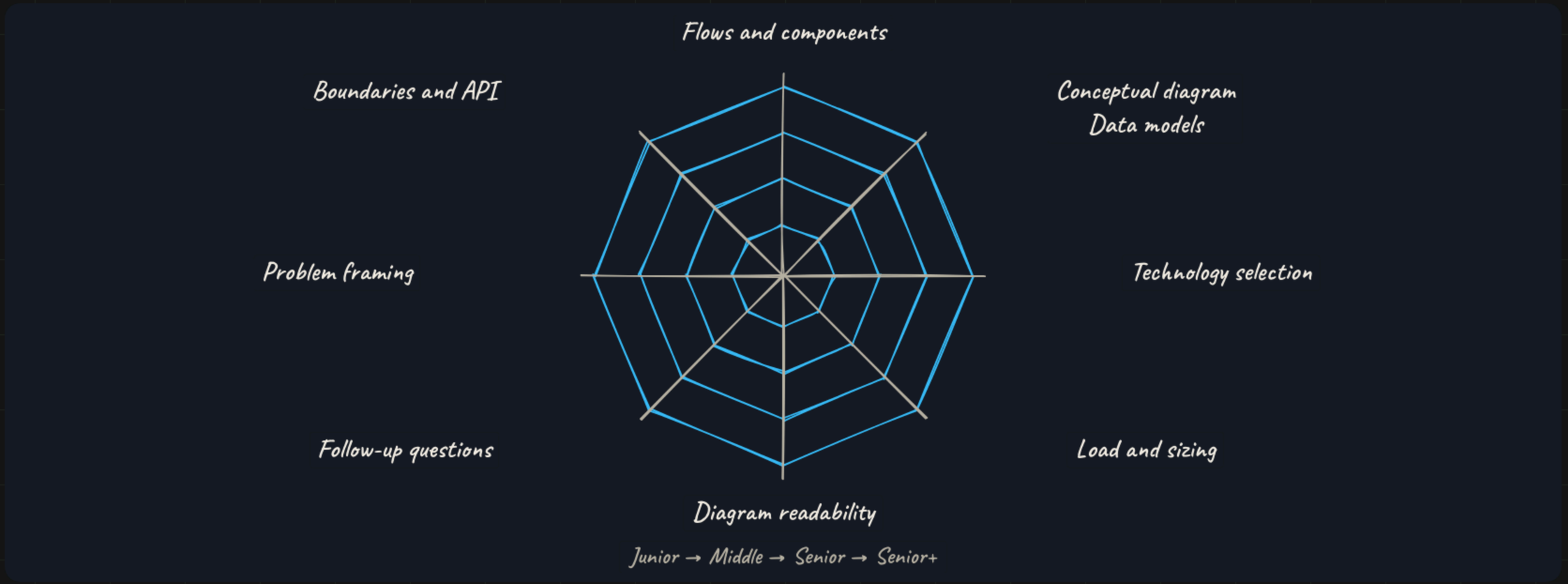
04

How we score the candidate

Eight axes and the level read off them

Candidates are assessed along eight dimensions

Criteria 8 axes



Part 5

05

Wrap-up

And how to learn to design systems

The questions we covered

Wrap-up We covered

What is left is learning to design systems well

- What the hiring process looks like
- Why we check system design skills
- What the candidate gets out of it
- What the section and a typical task look like
- How we score candidates

Links for further study

The sources from the talk's closing slide

- The article «How to get better at software design — books»
- The «System Design Primer» resource
- The «Distributed Systems» and «Essential Architecture» courses
- The ArchDays, Highload and Hydra conferences

polomodov.tech

Thank you!

All slides and links are in the Telegram channel

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