



Virtual On-Site Preparation Materials

Congratulations on making it to the final round of our interview process, our engineering organization is very excited to meet you! This final round of interview will be roughly 2 hours & 45 minutes long where you'll be meeting with our engineers and executive. The interview will be divided into two 1-hour technical rounds and one 45-minute executive interview. We've broken down Elemy's software engineering interviews below to help you prepare and do your best! We recommend asking clarifying questions.

- **Coding: Data Structures (1-hour):**
 - You can consult internet/documentation for these interview and code in any environment you're comfortable with for both technical rounds ex: VSCode
 - We'd recommend brushing up on things such as Bit strings, runtime/space complexity etc.
 - You will be tested on API design, Object Oriented Design, & your problem solving skills
 - You may be asked to solve a simple problem by using classes/functions and any data structure of your choice. It'll test you on things you'd do on a day-to-day basis
- **Coding: Object Oriented Programming (1-hour):**
 - This interview will test you on your Object Oriented Programming concepts
 - This interview will test you more on building systems and less algorithm heavy
 - Be sure to have in-depth understanding of the programming language of your choice
 - The code you write should be well structured and maintainable
 - We will expect you to write tests and have good documentation behind them
 - It's important to follow the DRY (Don't repeat yourself) principle (https://en.wikipedia.org/wiki/Don%27t_repeat_yourself)
- **Executive Interview (45-min):**
 - This interview will be with one of our executive team members that will dive deeper into your experience as an Engineer
 - An advice I would give you is to be product focused and customer centric as you answer your questions
 - Think about a project/product you've worked on in the past:
 - What were the problem statements and challenges you faced with this product/project?
 - What steps did you take to solve the problem?
 - What did you learn?
 - What was the end result of it?
 - It's also a chance for you to understand more about the team and org. Remember to come in with questions you still have about the Engineering organization as it's a good chance for you to understand the executive's vision of the organization.



Additional Resources:

<https://github.com/donnemartin/system-design-primer>

<https://www.amazon.co.uk/dp/1449373321?tag=gregdoesit-21&geniuslink=true>

<https://www.amazon.ca/Cracking-Coding-Interview-Programming-Questions/dp/0984782850>

<https://www.algoexpert.io>