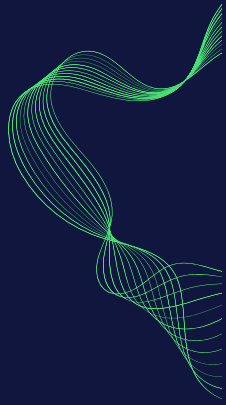




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Quick Guide to Prepare for your Architect Job Interview

Cheat Sheet

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Introduction

Hi! I'm Adel!

I'm a software architect with over 20 years of experience designing and developing software solutions for various industries, such as healthcare, insurance, finance, and more. I have worked on projects ranging from web applications to cloud platforms. I'm passionate about software architecture and love sharing my knowledge and insights with others.

That's why I created this cheat sheet to help you ace your architect job interview.

In this cheat sheet, you will find resources, tips, and tricks to help you prepare for the most common and challenging questions software architects face.

Whether you are a beginner or an expert, this cheat sheet will help you boost your confidence and impress your interviewer.

Let's get started!

Resources

This section presents the study materials and the expected time needed for each topic. These study materials consist of books, articles, videos, and online courses that are especially useful.

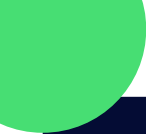
Please note that the estimated timing is a guideline and may vary depending on your experience with each topic.

Competency	Description	Recommended Resources	Estimated Timing*	Your Timing
Communication and Leadership Skills	Effectively communicate and present architecture solutions to various stakeholders, such as clients, developers, managers, and users.	Videos: -The soft skills of software architecture Book: -Fundamentals of Software Architecture: An Engineering Approach (Chapter: 23 - Negotiation and Leadership Skills)	2-3 hours	
Documentation, Diagramming and Presentation Skills	Documenting your architecture, creating clear diagrams, and presenting to different stakeholders are key skills for architects.	Articles: -Software architecture diagramming and patterns -Diagramming skills -What should be in an architecture document? -Why Should Documentation be Treated as Code? Book: -Fundamentals of Software Architecture: An Engineering Approach (Chapter: 21 - Diagramming and Presenting Architecture)	2-4 hours	

Competency	Description	Recommended Resources	Estimated Timing*	Your Timing
<p>Architecture Fundamentals</p>	<p>Understand the different software architecture concepts, including non-functional requirements, architecture decisions, and other important skills required for the architect role.</p>	<p>Books:</p> <ul style="list-style-type: none"> -Fundamentals of Software Architecture: An Engineering Approach (Chapters: 1, 2, 4, 19, 20, 21) -Software Architecture in Practice, 4th Edition (Chapters: 1, 3) <p>Articles:</p> <ul style="list-style-type: none"> -Documenting Architecture Decisions -The Clean Architecture -Think Like an Architect <p>Videos:</p> <ul style="list-style-type: none"> -The elephant in the architecture -The Architect Elevator: Connecting Penthouse and Engine -Fundamentals of Software Architecture -Five Things Every Developer Should Know about Software Architecture 	<p>12-15 hours</p>	
<p>Architectural Patterns</p>	<p>Understand the architecture patterns and select which architecture patterns and styles fit the problem domain.</p>	<p>Book:</p> <ul style="list-style-type: none"> -Fundamentals of Software Architecture: An Engineering Approach (Chapters: 9, 14, 16, 18) <p>Articles:</p> <ul style="list-style-type: none"> -14 software architecture design patterns to know -Catalog of Patterns of Enterprise Application Architecture -5 Major Software Architecture Patterns <p>Video:</p> <ul style="list-style-type: none"> -Classifying Architecture Patterns 	<p>6-8 hours</p>	

Competency	Description	Recommended Resources	Estimated Timing*	Your Timing
Databases	It is important to understand when to use SQL vs. NOSQL databases, Disaster Recovery strategies, Data replication, ...etc.	<p>Book:</p> <ul style="list-style-type: none"> -Designing Data-Intensive Applications (Chapters: 1, 5, 7) <p>Articles:</p> <ul style="list-style-type: none"> -Refactoring Databases: Evolutionary Database -Understanding open-source databases <p>Videos:</p> <ul style="list-style-type: none"> -Introduction to NoSQL -But I Need a Database that Scales -Introduction to Data Mesh 	4-6 hours	
Microservices	When to use microservices vs. monolith, how to design and create microservices and the different types of communication between microservices.	<p>Book:</p> <ul style="list-style-type: none"> -Building Microservices: Designing Fine-Grained Systems(Chapters: 1, 2, 5) <p>Articles:</p> <ul style="list-style-type: none"> -REST API Design - Resource Modeling -Pattern: Microservice Architecture -OpenAPI Specification -Microsoft REST API Guidelines -Google API Design Guide <p>Videos:</p> <ul style="list-style-type: none"> -When To Use Microservices (And When Not To!) -Microservices Patterns 	6-8 hours	

Competency	Description	Recommended Resources	Estimated Timing*	Your Timing
<p>Cloud and Infrastructure</p>	<p>Understand the core concepts of networking, the difference between public, private and hybrid clouds and what is IaaS, PaaS and SaaS.</p>	<p>Articles:</p> <ul style="list-style-type: none"> -what-is-the-cloud? -IaaS versus PaaS versus SaaS -Load balancer types <p>Videos:</p> <ul style="list-style-type: none"> -Introduction to Cloud Computing - the Basics SaaS, PaaS, IaaS -TCP/IP Model -What DHCP is all About? -Getting Started with Domain Name System (DNS) <p>Free Course:</p> <ul style="list-style-type: none"> -Introduction to Cloud Infrastructure Technologies 	<p>4-6 hours</p>	
<p>Security</p>	<p>The security is important in the architecture, including securing the communication channels, single sign-on in your applications, OAuth, and how to manage your credentials securely.</p>	<p>Videos:</p> <ul style="list-style-type: none"> -Making Sense of Application Security -Introduction to OAuth and OpenID Connect -Transport Layer Security (TLS) -What are Digital Signatures? -Securing APIs and Microservices in the Cloud 	<p>4-6 hours</p>	



Competency	Description	Recommended Resources	Estimated Timing*	Your Timing
DevOps and CI/CD	What is DevOps and the Continuous Integration and Continuous Deployment.	<p>Books:</p> <ul style="list-style-type: none">-Cloud Native (Chapters: 5)-Building Microservices: Designing Fine-Grained Systems(Chapters: 7) <p>Articles:</p> <ul style="list-style-type: none">-CI/CD: The what, why and how-What is DevOps? <p>Videos:</p> <ul style="list-style-type: none">-What is DevOps?	4-6 hours	
Containers and Kubernetes	Learn how the containers and Kubernetes work and why to use them. Understand what Cloud Native is.	<p>Book:</p> <ul style="list-style-type: none">-Cloud Native (Chapters: 1, 2, 3) <p>Videos:</p> <ul style="list-style-type: none">-Docker Tutorial for Beginners-Containerization Explained-Kubernetes Crash Course for Absolute Beginners-Kubernetes Explained <p>Free course:</p> <ul style="list-style-type: none">-Introduction to Kubernetes	6-8 hours	





Tips and Tricks

In this section, I will share with you some tips and tricks on how to prepare for your interviews:

- **Research the company and the role:** Take some time to do some research on the specific company and role you are applying for and tailor your answers accordingly.
- **Prepare examples of your past projects:** You should be able to showcase your portfolio of previous projects and explain how you applied architectural principles. Also, emphasize your successes and challenges and how you solved them.
- **Practice your communication and presentation skills:** You should be prepared to explain complex technical concepts in simple terms, present your architectural solutions clearly and persuasively, and answer questions confidently and accurately.



- **Plan your interview preparation:** Begin your preparation as soon as possible and have a plan for what topics you need to study and the days you will learn them. I hope the topics and resources mentioned above help you prepare effectively.
- **Prepare a drawing tool for online interviews:** For online interviews, you should have a drawing tool ready to use and share with the interviewer. Make sure to use a tool that you know well. You should also test your screen sharing or video conferencing features before the interview to make sure they work properly.

If you want to get in touch or ask any questions to help you prepare for your interview, please contact me at: adel@softwarearchitectskills.com.