

## **SYSTEM** DESIGN





2+ 1500+ Enrolled 4.9
Rating

**06** Weeks 36+ Hours

PLACEMENT ASSISTANCE

**LIVE** Mentorship

**PROJECT**Based Learning

~DESIGN YOUR CAREER~



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## **EXPERT ADVICE**

## Mr. Sandeep Jain

Founder & CEO - GeeksforGeeks

He started this Journey with just one thought- every geek should have access to a never ending range of academic resources and with a lot of hardwork and determination, **GeeksforGeeks** was born.

Through this platform, he has successfully enriched the minds of students with knowledge which has led to a boost in their careers. But most importantly, GeeksforGeeks will always help students stay in touch with their Geeky side!

I understand that many students who come to us are either fans of the sciences or have been pushed into this field by their parents.

And I just want you to know that no matter where life takes you, we at GeeksforGeeks hope to have made this journey easier for you.



## **COURSE OVERVIEW**



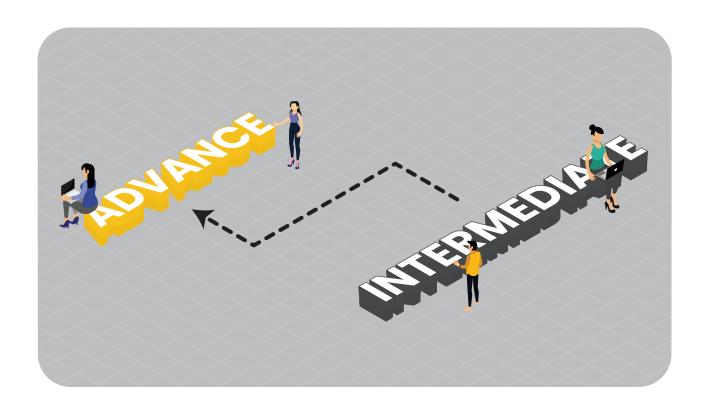
This is a live interview-centric course in which the content has been designed in a manner that will prepare you for System Design interviews for companies like Google, Amazon, Adobe, Uber, etc. Industry experts having the first-hand experience will be mentoring and guiding you throughout the duration of the course. SDL is a Live session that is scheduled on the weekends.



The **Doubt Assistance** (6 Months) would be available **24X7** in the form of a discussion portal, where there will be mentors and TA's to help you out with any problem you face for a complete year. You can also get your doubts resolved on Google Meet.

#### What will you learn?

- Designing Scalable Systems
- Tips and tricks to crack System Design Interviews
- Practical implementation



## **Course Syllabus**



#### Week 01

#### Lecture 1

Introduction to SD Interviews, SD Process, Design problem focused on requirement analysis & Data Modelling

#### Lecture 2

Generic Components design diagram of large-scale system expectations from Interviewee, Trade-Offs in a Large-Scale System, Design problem focused on requirement analysis & Data Modelling

#### Week 02

#### Lecture 1

Load Balancers, SSL Termination & SSL Passthrough, Reverse Proxy, Design problem focused using Reverse Proxy & LB

#### Lecture 2

Web Sockets, Facebook Messenger Design using Web Sockets, Monoliths & Microservices

#### Week 03

#### Lecture 1

O Auth 2, JWT Tokens, Design problem focused on writing Microservices

#### Lecture 2

CDN, Caching, Design problem focused on using CDN

#### Week 04

#### Lecture 1

Design problem focused on using CDN, DNS, HTTPS Working, Zookeepers, Design problem focused on Zookeepers

#### Lecture 2

Distributing data in a large-scale system, Linear Hashing, Consistent Hashing, Design problem focused on Consistent Hashing

#### Week 05

#### Lecture 1

How to handle massive data, Indexing, Data Partitioning, Sharding, Replication & Mirroring, Design problem focused on Data Modelling

#### Lecture 2

Push VS Pull Mechanism, Tips on System Design, Apply end-to-end learning on designing a System, Event driven design of a problem

#### Week 06

#### Lecture 1

Attacks on a service, Encryption Mechanism

#### Lecture 2

API Design, Revisiting Databases, Applying end-to-end learning on Designing a System



## **COURSE HIGHLIGHTS**



Live Interaction with the Mentor



Frequently asked Interview questions



Complimentary Course Access



Doubt Assistance



Contest & Quizzes



Access to Get Hired Portal



Course Completion Certificate



Limited Batch Strength

## WHERE OUR ALUMNI WORK













































## **Success Stories**



Swapnil Javanjal

Placed as a Software Engineer at



I was enrolled in the System Design Live classes. I must say, Mentor and GFG support are both very professional and helpful to the students. The Mentor has a deep understanding of the system design concepts and knows the best way to teach difficult topics in it. He has cleared a ton of my doubts during the classes which helped me clear many interviews of the top-notch companies in the United States. Mentor is an informative, collaborative, and interactive person who will help you in climbing up the career ladder. I would recommend this course to everyone who is starting with his/her interview preparations or has intermediate interview skills and are not sure where they are going wrong.



mechanizer

Placed as an Associate Solution Leader at

Brane(NSLHUB)

I am Shubham, a mechanical undergrad from IIT Bhubaneswar. I would like to thank, GeeksforGeeks for providing an immensely detailed course for the ease of students. This course has helped a non-Computer Science(B.Tech) student like me, to secure 3 offers in the software industry. Being an alumnus from IIT without any offer in hand, was very depressing for me. I bought the System Design-Live course from GeeksforGeeks and apart from this, four other courses like DSA self-paced course, CPP STL, SDE Theory, and Low-Level Design course, around 10 months back and practiced rigorously. Today I can proudly say, that I have 3 offers in hand with a base pay of 7 LPA, 10 LPA, and 18 LPA. Thanks a lot to the whole community of GeeksForGeeks. Thank you Sandeep Jain sir for making GeeksforGeeks.





## **Success Stories**



**Hitesh Garg** 

Placed as a Software Engineer at

**SOPHOS** 

I had less experience in system design in my current company hence for further interview preparation I need to learn more about system design. This course helped me a lot in learning more about System Design. I liked the way how the course structure is designed. There are more and more practical examples that helped a lot. Mentor was also my favorite from GeeksforGeeks till now. Got to learn more about micro services high-level scalable system design. Because of this course, I was able to crack every single interview of high-level design in all big companies.



Shail

Placed as a
Senior Software Engineer

amazon

Thank you so much, Sandeep to provide us with such a beautiful platform like GFG. The way you explained DSA topics actually helped me to learn complex algorithms because of this course, I was able to grasp a complete understanding of data structure and then actively solve problems. I bought a System design course on your platform, which helped me get a broad vision of the system. Due to these two courses, I was able to crack all interview rounds of top companies including Amazon, Flipkart, and Walmart. I am looking forward to contributing back to the GFG community





## **REVIEWS**

#### **Aravinth Raja**



The course is simply wonderful. Lots of discussions take place, which is great for understanding the concepts. Mentor's knowledge in his subject is just outstanding.

#### **Nirmal**



I really liked the teaching approach adopted by the mentor. He is super friendly, I really enjoy his sessions. I have learnt a lot from this course & got an idea about the expectations of the interviewers. In-depth explanations of theoretical content & recordings of classes are very useful for learning. The classes are intriguing, I love it!!

#### **Keshav Nath**



I really liked the teaching methodology of the mentor, I wished if we could have a few more sessions by him. His lectures helped me to deep dive into the concepts with basics properly explained. This course helped me to get started with System design from the scratch.

#### **Amit Kumar**



It was a nice course, covers a good amount of Q's & has sufficient theory, for understanding the topics & preparing the notes. I had a great learning experience with GFG!!

## **QUESTION & ANSWER**





What is System Design? What am I going to learn from this course?

System Design is the process of designing the architecture components and interfaces for a system so that it meets the end-user requirements. You will get to learn the approach to design a scalable system and its practical implementation.





I have to prepare for my interviews and have to do DSA and System Design at the same time. Can I do this parallelly? Will I be able to cope up?

If you are a working professional looking out for a switch or a better opportunity we have got your back! We suggest you go for **DSA Live for Working Professionals & System Design Live.** Yes, you can enroll in both of the courses simultaneously. All you need is some basic knowledge of Data Structures & Algorithms.





I have my interviews lined up for top product-based companies, I have already completed my Data Structures & Algorithms. I want to focus on System Design too. Is this course a good fit for me?

System design is an important topic when it comes to the interview sessions for a working professional in a top product-based company. This is a live course in which top industry experts will be conducting live lectures. The course content is interview-centric and as per the requirement of the industry. Also, the content is updated according to industry standards.







I want to gain hands-on experience, will this course help me?

In this course, you get to implement the design of some top products like Twitter, Facebook Messenger, Uber and you get to apply end to end learning on designing a system. All these would be covered in such a way that you will be able to gain hands-on experience and also be ready for the questions asked in the interview sessions in the top product-based companies.





What if I miss out on any Live-session? How will I cover up?

To help out the students in every possible way, we provide the recordings of the Live lectures that are conducted. If a student misses out on any lecture, he/she can find the recordings and can go through them. In case of any further queries, they can be resolved with the help of the mentor. The recordings are uploaded in the next 48 hours of the class and are available to students for 6 months post the completion of the course.





Is doing Low-Level design course from GeeksforGeeks suffcient, or do I need to go for this one?

The low-level design course from GfG is a basic course whereas the System Design-Live course is full-fledged interview-centric course. If you want to gain in-depth knowledge, then this is a perfect course for you!







How does Doubt Support work?

There is a Whatsapp Group where the students can get their doubts resolved.





What is the checklist that I need for my Interview Preparation?

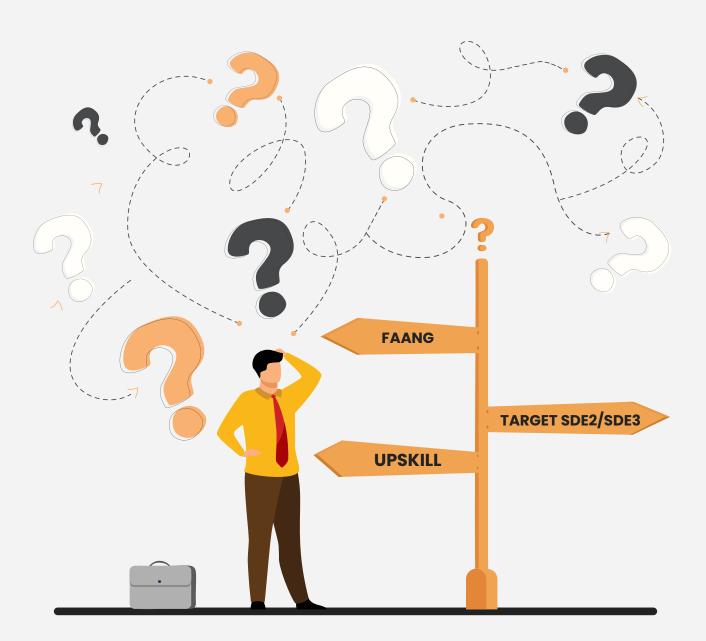
- ✓ Proficient in Data Structures & Algorithms
- ✓ Good knowledge of System Design
- ✓ Company wise Questions
- ✓ Good problem solving & analytical skills
- ✓ Interview Experience Articles





# STILL UNSURE ABOUT COURSE? SYSTEM DESIGN





**Get 1:1 Free Counselling** 



### **Geeks Learning Together!**

A-143, 9th Floor, Sovereign Corporate Tower, Sector-136, Noida, Uttar Pradesh - 201305

For any query, Connect us at:

courses@geeksforgeeks.org











