**Module 1: Basic concepts**

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| 1**.**[Concept guide](https://www.enjoyalgorithms.com/blog/basics-of-system-design/) |
| 2. [Interview guide](https://www.enjoyalgorithms.com/blog/how-to-approach-system-design-interview/) |
| 3. [Network protocols](https://www.enjoyalgorithms.com/blog/network-protocols-concept/) |
| 4. [Process management in OS](https://www.enjoyalgorithms.com/blog/process-management-in-operating-system/) |
| 5. [What is caching?](https://www.enjoyalgorithms.com/blog/caching-system-design-concept/) |
| 6. [What is rate limiting?](https://www.enjoyalgorithms.com/blog/throttling-and-rate-limiting/) |
| 7. [What is latency?](https://www.enjoyalgorithms.com/blog/latency-in-system-design/) |
| 8. [What is throughput?](https://www.enjoyalgorithms.com/blog/throughput-in-system-design/) |
| 9. [Idea of availability](https://www.enjoyalgorithms.com/blog/availability-system-design-concept/) |
| 10.[What is web sockets?](https://www.enjoyalgorithms.com/blog/web-sockets-in-system-design/) |
| 11. [Server sent events](https://www.enjoyalgorithms.com/blog/server-sent-events/) |
| 12. [Long polling](https://www.enjoyalgorithms.com/blog/long-polling-in-system-design/) |
| 13. [Storage and redundancy](https://www.enjoyalgorithms.com/blog/storage-and-redundancy/) |
| 14. [What is load balancer?](https://www.enjoyalgorithms.com/blog/load-balancers-in-system-design/) |

**Module 2: Advanced concepts**

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| 1.[Client server architecture](https://www.enjoyalgorithms.com/blog/client-server-architecture/) |
| 2.[Load balancing algorithms](https://www.enjoyalgorithms.com/blog/types-of-load-balancing-algorithms/) |
| 3. [Proxies in system design](https://www.enjoyalgorithms.com/blog/proxies-in-system-design/) |
| 4. [Database indexing](https://www.enjoyalgorithms.com/blog/database-indexing-in-system-design/) |
| 5. [Database partitioning](https://www.enjoyalgorithms.com/blog/data-partitioning-system-design-concept/) |
| 6. [SQL vs NoSQL](https://www.enjoyalgorithms.com/blog/sql-vs-nosql/) |
| 7. [What is CAP theorem?](https://www.enjoyalgorithms.com/blog/cap-theorem-in-system-design/) |
| 8. [Key-value database](https://www.enjoyalgorithms.com/blog/key-value-stores-in-system-design/) |
| 9. [Consistent hashing](https://www.enjoyalgorithms.com/blog/consistent-hashing-in-system-design/) |
| 10. [Distributed systems](https://www.enjoyalgorithms.com/blog/distributed-system-in-system-design/) |
| 11. [Peer-to-peer architecture](https://www.enjoyalgorithms.com/blog/peer-to-peer-networks/) |
| 12. [Leader election](https://www.enjoyalgorithms.com/blog/leader-election-system-design/) |
| 13.[What is MapReduce?](https://www.enjoyalgorithms.com/blog/map-reduce/) |
| 14. [Pub-sub pattern](https://www.enjoyalgorithms.com/blog/publisher-subscriber-pattern/) |