

Important CS fundamentals topics to cover before the interview.

Important Topic for OS

- 👉 Process (Attributes, state, life cycle, PCB) vs Thread.
- 👉 Scheduling Algorithms
- 👉 Multiprogramming vs Multiprocessing vs Multitasking vs Multithreading.
- 👉 Memory Allocation
 - a) Fixed Partitioning
 - b) Dynamic Partitioning
 - c) Paging
 - d) Segmentation
- 👉 Internal and External Fragmentation.
- 👉 Memory Allocation Technique.
- 👉 Page replacement Algos
- 👉 Deadlock
- 👉 Critical section problem
- 👉 Mutex vs Semaphore

Important Topic for DBMS

- 👉 Advantage of DBMS
- 👉 All type of Keys
- 👉 Normalization
- 👉 SQL queries
- 👉 Relational Algebra
- 👉 Joins
- 👉 Trigger, cursor, view
- 👉 Dirty read problem
- 👉 Conflict serializable vs View serializable.
- 👉 ACID properties.
- 👉 Indexing | Indexing methods

Important Topic for COMPUTER NETWORK

- 👉 Network Topology
- 👉 Switch hub router bridge
- 👉 Transmission modes
- 👉 ipv4 vs ipv6
- 👉 subnetting in IP
- 👉 OSI layer
- 👉 TCP/IP model
- 👉 TCP vs UDP
- 👉 DNS DHCP FTP HTTP vs HTTPS SMTP SNMP
- 👉 Flow vs Error control

Important Topic for OOPS

- 👉 Class and Objects.
- 👉 Feature/characteristics of OOPs.
- 👉 Compile time and Runtime polymorphism.
- 👉 Variable scopes.
- 👉 static (variables, Functions, Objects).
- 👉 Inheritance (Type and Mode)
- 👉 Virtual (Functions and Class)
- 👉 Abstract class and Interface.
- 👉 Friend function and Friend class.
- 👉 Call by value, reference.
- 👉 This pointer
- 👉 Abstraction
- 👉 Exception Handling
- 👉 Constructor and Destructor.
- 👉 Copy constructor
- 👉 copy assignment operator
- 👉 References variable
- 👉 Const (variable, Function, Argument)
- 👉 Overloading (Function, Constructor, Operator)
- 👉 Function overriding and Inline function.