CRACKING THAT $$$ INTERVIEW

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What all is required for the interview?

1. *CONFIDENCE*
2. **Knowledge of the language**
3. **Data Structures & Algorithms**
4. **Project**
5. **DBMS**
6. **Operating Systems**
7. **Networks**
8. **Puzzles**
9. **HR Preparation**
10. *REVISION*

Whatever we're covering in this document is not everything that is required for the interviews. The interviewer expects to check how good you are at what you know, and how do you perceive something you are not aware about, there is nothing sort of "*syllabus*" as such. The sole purpose of making this document is to give you guys an insight on what interviewers expect and guide you to a path to kick start your preparation and "*Ace that Dream of Yours*". The main guiding light will come to you from inside and always keep that fire burning in you to learn something new each day and be a better version of yourself.

"The more you know, the more you realise how much you don't know"

1.   CONFIDENCE

Be confident during the interview, no one wants to hire a person who can't speak for himself/herself. The person sitting in front of you is really-really interested in hiring you and that's why he's there in front of you. Also keep in mind that they want to hire the best candidate for their firm, and you have to make them feel that there is no one better for the position, but you.

The interview doesn't know what your past is, how and when you started, maybe earlier maybe late. What all matters is what you know on the day of interview, how you portrait yourself in front of the interviewer.

2.   Knowledge of the language

Have a vast understating of the Coding language you use. The interviewer is definitely going to drill you on the basic concepts and you must be completely prepared for those questions.

For e.g. If we consider Java:

- OOPS concepts (Data Abstraction, Encapsulation, Inheritance, Polymorphism)
- Basic Java constructs like loops and data types
- String handling
- Collection framework
- Multithreading
- Exception handling
- Generics
- Synchronisation
- Serialisation & De-serialisation
- Concurrent collection (garbage collection)

Some links for Reference:

- www.realjavaonline.com
- https://www.geeksforgeeks.org/commonly-asked-java-programming-interview-questions-set-1/
- https://www.geeksforgeeks.org/commonly-asked-java-programming-interview-questions-set-2/
- https://www.javatpoint.com/corejava-interview-questions
- https://www.edureka.co/blog/interview-questions/java-interview-questions/
- https://www.softwaretestinghelp.com/core-java-interview-questions/
- https://javarevisited.blogspot.com/2017/04/difference-between-abstraction-and-encapsulation-in-java-oop.html

3. *Data Structures & Algorithms*

In depth knowledge and hands on with at least, but not limited to the following DS:

- ➢ Array
- ➢ Strings
- ➢ Linked List
- ➢ Stack
- ➢ Queue
- ➢ Binary Tree
- ➢ Binary Search Tree
- ➢ Heap
- ➢ Hashing
- ➢ Graph

Some video lectures for Reference:

IMP: https://www.youtube.com/playlist?list=PL2_aWCzGMAwI3W_JlcBbtYTwiQSsOTa6P

IMP: https://www.youtube.com/user/mycodeschool/playlists

IMP: https://www.youtube.com/playlist?list=PLamzFoFxwoNjPfxzaWqs7cZGsPYy0x_gI

Some links for Reference:

https://www.geeksforgeeks.org/how-to-begin-with-competitive-programming/

https://www.geeksforgeeks.org/data-structures/

https://practice.geeksforgeeks.org/explore/?

https://www.geeksforgeeks.org/array-data-structure/

https://www.geeksforgeeks.org/string-data-structure/

https://www.geeksforgeeks.org/data-structures/linked-list/

https://www.geeksforgeeks.org/stack-data-structure/

https://www.geeksforgeeks.org/queue-data-structure/

https://www.geeksforgeeks.org/binary-tree-data-structure/

https://www.geeksforgeeks.org/binary-search-tree-data-structure/

https://www.geeksforgeeks.org/heap-data-structure/

https://www.geeksforgeeks.org/hashing-data-structure/

https://www.geeksforgeeks.org/graph-data-structure-and-algorithms/

4.   Project

Have at least one full-fledged project made by you. Don't copy anyone work and call it yours, you can be easily caught in that case. Have a proper understanding of your project. Questions like Why you did that particular project, what all technologies you used, what problem statement it solves, you should be able to answer them all.

5.   DBMS

You should be familiar with some core CSE subjects, DBMS being one of them.

Important Topics: Basic concepts, three-tier architecture, **SQL** Queries, ER Model, functional dependencies, **normalization**, relational model, stored procedures and triggers, locking, clustering. Most importantly designing a database can be asked.

Some video lectures for Reference:

https://www.youtube.com/playlist?list=PLmXKhU9FNesR1rSES7oLdJaNFgmuj0SYV

Some links for Reference:

https://www.geeksforgeeks.org/dbms/

https://www.javatpoint.com/dbms-interview-questions

https://www.geeksforgeeks.org/commonly-asked-dbms-interview-questions/

https://www.geeksforgeeks.org/commonly-asked-dbms-interview-questions-set-2/

https://www.javatpoint.com/sql-tutorial

https://www.w3schools.com/sql/

https://www.tutorialspoint.com/sql/index.htm

https://www.javatpoint.com/dbms-normalization

https://www.geeksforgeeks.org/difference-between-sql-and-nosql/

https://www.geeksforgeeks.org/plsql-introduction/

https://www.javatpoint.com/sql-vs-nosql

6.   *Operating Systems*

Important concepts in Operating Systems:

- ➢ Types of Operating Systems
- ➢ I/O Structure
- ➢ Storage Structure and Storage Hierarchy
- ➢ Operating System Services
- ➢ Process Scheduling Algorithms
- ➢ Inter Process Communication
- ➢ CPU Scheduling Algorithms
- ➢ Dead Lock and Dead Lock Prevention and Avoidance
- ➢ Hardware Protection
- ➢ Memory Management
- ➢ Paging, Segmentation, Paging with Segmentation
- ➢ Virtual Memory
- ➢ File Concepts
- ➢ Disk Scheduling Algorithms
- ➢ Disk Structure
- ➢ File Accessing methods

Some video lectures for Reference:

https://www.youtube.com/playlist?list=PLmXKhU9FNesSFvj6gASuWmQd23Ul5omtD

Some links for Reference:

https://www.geeksforgeeks.org/operating-systems/

https://www.javatpoint.com/operating-system-interview-questions

https://www.sanfoundry.com/operating-system-questions-answers/

https://www.geeksforgeeks.org/commonly-asked-operating-systems-interview-questions-set-1/

https://www.geeksforgeeks.org/mutex-vs-semaphore/

7. Networks

Important Topics: OSI Model, TCP vs UDP, Different Protocols, Hubs, Bridges, Routers, how is a google search result fetched, etc.

Some video lectures for Reference:

https://www.youtube.com/watch?v=vv4y_uOneC0&t=301s

https://www.youtube.com/playlist?list=PLxCzCOWd7aiGFBD2-2joCpWOLUrDLvVV_

https://www.youtube.com/playlist?list=PLV8vIYTIdSnYgxRYBC7blHaVUGFHUXLns

Some links for Reference:

https://www.geeksforgeeks.org/basics-computer-networking/

https://www.javatpoint.com/networking-interview-questions

https://www.geeksforgeeks.org/commonly-asked-computer-networks-interview-questions-set-1/

https://www.softwaretestinghelp.com/networking-interview-questions-2/

https://www.geeksforgeeks.org/computer-networks-set-1/

8. Puzzles

Normal Puzzles to check your presence of mind, your aptitude and your IQ:

Some video lectures for Reference:

https://www.youtube.com/channel/UCTRxnMudmOGNw0g4gZf5D8g/playlists

Some links for Reference:

https://www.geeksforgeeks.org/puzzles/

9. HR Preparation

Prepare yourself a small and relevant introduction that includes all aspects you want the interviewer to know about you before you actually jump to the interview.

Some HR questions can be found at:

https://www.indiabix.com/hr-interview/questions-and-answers/

https://www.naukri.com/blog/frequently-asked-hr-interview-questions-and-answers/

https://www.javatpoint.com/job-interview-questions

10. REVISION

Your own notes are the best to revise from.

Apart from that, depending on the company you're preparing for the revision must be specific.

Some links for Reference:

https://www.geeksforgeeks.org/must-coding-questions-company-wise/

https://www.geeksforgeeks.org/company-interview-corner/

https://www.geeksforgeeks.org/last-minute-notes-dbms/

https://www.geeksforgeeks.org/last-minute-notes-operating-systems/

https://www.geeksforgeeks.org/last-minute-notes-computer-network/