DSA Tutorial - Learn Data Structures and Algorithms

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DSA (Data **S**tructures and **A**lgorithms) is the study of organizing data efficiently using data structures like arrays, stacks, and trees, paired with step-by-step procedures (or algorithms) to solve problems effectively. Data structures manage how data is stored and accessed, while algorithms focus on processing this data.

Why to Learn DSA?

- Learning DSA boosts your problem-solving abilities and make you a stronger programmer.
- DSA is foundation for almost every software like GPS, Search Engines, AI ChatBots, Gaming Apps, Databases, Web Applications, etc
- Top Companies like **Google, Microsoft, Amazon, Apple, Meta** and many other heavily focus on DSA in interviews.

How to learn DSA?

- 1. Learn at-least one programming language (<u>C++</u>, <u>Java</u>, <u>Python</u> or <u>JavaScript</u>) and build your basic logic.
- 2. Learn about Time and Space complexities
- 3. Learn Data Structures and Algorithms
- 4. Practice DSA
- 5. Solve problems daily using <u>GfG POTD</u>, weekly using <u>GfG Weekly Contest</u> and monthly using <u>GfG Job-A-Thon</u>.