**How do I start learning or strengthen my knowledge of data structures and algorithms?**

We have heard many times that the initial starting step for any journey is the toughest one. Deciding on what to do and what not can be too hectic at times!

Programming and coding is the most fascinating and successful sector in the technology arena. The final step in being a pro is by having a great understanding and skill over Data structures and Algorithms.

To start with this, one must first pick up a **coding language** that is most grasping for him/her. Generally, the more preferable one is **C++**, but you can go with any of your choices.

After you are clear with the **basics** of programming like **variables**, **functions**, **iterations**, **looping**, **recursions**, etc, you can move on to Data Structures understanding and programming practice. Below is the step by step manual that could be followed:

* **Complexity analysis**
* **Strings and Hashmaps**
* **Arrays and Linked-list along with the searching and sorting algorithms**
* **Stacks and Queues.**
* **Trees and Graphs**
* **Tries and Huffman**

You can denote **1 week** to **10 days** each for each of the above topics including their understandings and practice.

The algorithm comes in the next step of excelling in programming. It can also be divided into smaller segments to be carried out with each week. The important algorithms are:

* **Asymptotic analysis**
* **Master Theorem**
* **Greedy Algorithms**
* **Divide and conquer algorithms**
* **Branch and bound algorithm**
* **DP**
* **NP-hard and complete**

Go through each step thoroughly and be a pro coder and programmer!