

Course ID: [CSE 246][Algorithms]
Semester: Spring 2022
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Email Format: [CSE Course No][Question]

Books

- Introduction to Algorithms by Thomas H. Cormen

Language

- C, C++, Python, Java

Some additional resources

- <https://www.shafaetsplanet.com/>
- Programming Contest, Data Structure & Algorithm by Md Mahbubul Hasan

Practice Platforms

- <https://codeforces.com/problemset>
- <https://lightoj.com/>
- <https://www.codechef.com/>

Code Repository

Link: <https://docs.github.com/en/get-started/quickstart/hello-world>

- Github
- Bitbucket

Topics

Topic Domain	Topic Name	Content Description
Sorting	Insertion Sort	N/A

	Selection Sort Bubble Sort Counting Sort Merge Sort	
Searching	Binary Search Ternary Search Backtracking	N/A
Graph	BFS DFS Dijkstra Bellman Ford Floyd warshall Articulation vertex and edge Euler Path and cycle Topological Sort	N/A
Flow	Max cut/Min Flow Maximum Bipartite Matching Weighted Maximum Bipartite Matching Vertex Cover	N/A
Dynamic Programming	Recursion Knapsack Fibonacci Coin Change and variations LCS LIS Matrix Chain Multiplication Optimal Binary Search Tree	N/A
Adhoc	-	N/A
String Matching / Pattern Matching	KMP Aho corasic	

Plan

- We will try to implement each learned topic as a separate module so that finally we can make our own library.

Sorting