

Current project: Bulls and Cows change. Stages completed: 1 / 7.
You'll complete the current stage in 10 minutes, the project in 4 hours.

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Math 0 / 29 topics

Intro to algorithms

- Computer algorithms ...
- Recursion basics ...
- Divide and conquer ...
- Introducing the first algorithm ...
- The big O notation ...
- Data structures ...

- Graphs
 - [Graph](#) ...
 - [Basic terminology](#) ...
 - [Representation of graphs](#) ...
 - [Weighted graph](#) ...
 - [Connectivity in graphs](#) ...
 - [Spanning trees](#) ...
 - [Prim's algorithm](#) ...
 - [Kruskal's algorithm](#) ...
 - [Breadth-first search](#) ...
 - [Dijkstra's algorithm](#) ...

- Search algorithms
 - Linear search
 - Binary search
 - Jump search

- Sorting algorithms
 - [The sorting problem](#)
 - [Insertion sort](#)
 - [Merge sort](#)
 - [Bubble sort](#)
 - [Counting sort](#)
 - [Quick sort](#)
 - [Selection sort](#)

- Trees
 - Tree ...
 - Binary heap ...
 - Binary search tree ...
 - Tree traversals ...

- Limited access data types
 - Stack ...
 - Queue ...
 - Deque ...
 - Priority_queue ...

- String algorithms
 - [String basics](#)
 - [Searching a substring](#)
 - [Hamming distance](#)
 - [Prefix function](#)
 - [Knuth-Morris-Pratt algorithm](#)
 - [String hashing](#)
 - [Rabin-Karp algorithm](#)

- Linear structures
 - Singly linked list ...
 - Doubly linked list ...
 - Fixed-size array ...
 - Dynamic array ...

- Dynamic programming
 - [Dynamic programming basics](#)
 - [Edit distance](#)
 - [Edit distance alignment](#)

- Hashing
 - [Hashing: overview](#)
 - [Hash table](#)

+ **Essentials**
9 / 31 topics

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Java

66 / 239 topics