DSA using Python

Introduction to data structure

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Agenda

1. Why to learn DSA?
2. What is the importance of structuring data?
3. What is a data structure?
4. Where are data structure resides?
5. Classification of data structure
6. Algorithms
7. Prerequisites

Why to learn DSA?

1. Raise level of programming
2. Efficient Programming
3. Able to solve complex problems
4. Campus Placement
5. A-Grade company placements

What is the importance of structuring data?

1. Dictionary

What is the importance structuring data?

2. map

What is the importance structuring data?

3. Ledger

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What is a data Structure?

Data Structure is a particular way of storing and organizing data in a computer so that it can be used efficiently.

Where are data structures resides?

Classification of DS.

1. Linear data structures

   Array, dynamic array, linked list, stack, queue, deque, etc.

2. Non-Linear data structures

   BST, AVL, B-Tree, B+Tree, graph, etc

Algorithm

An algorithm is the step by step, linguistic representation of logic to solve a given problem.

Prerequisites

Python

- built-in types
- Control statements
- functions
- classes and Objects
- __init__()
- Types of variables and functions in class