Indian Institute of Information Technology Kottayam

Introduction

BY

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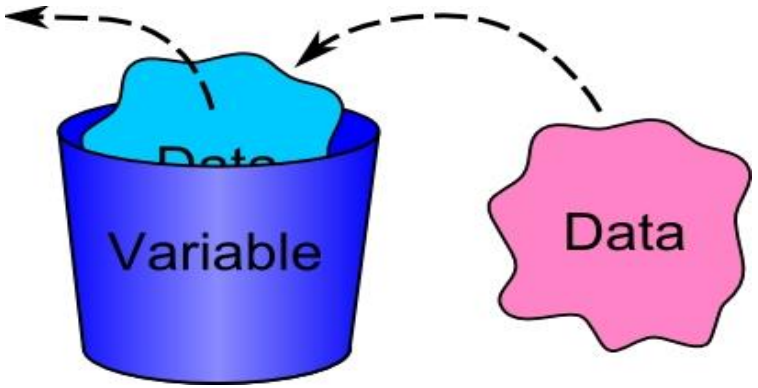
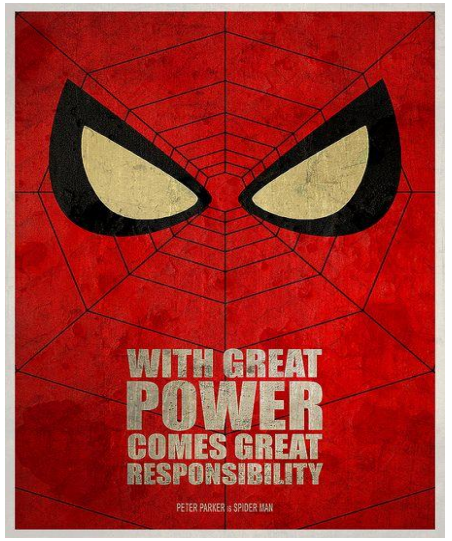
Introduction

- Programming languages.
- Variables.
- Manipulating Data.
- Data Structure.



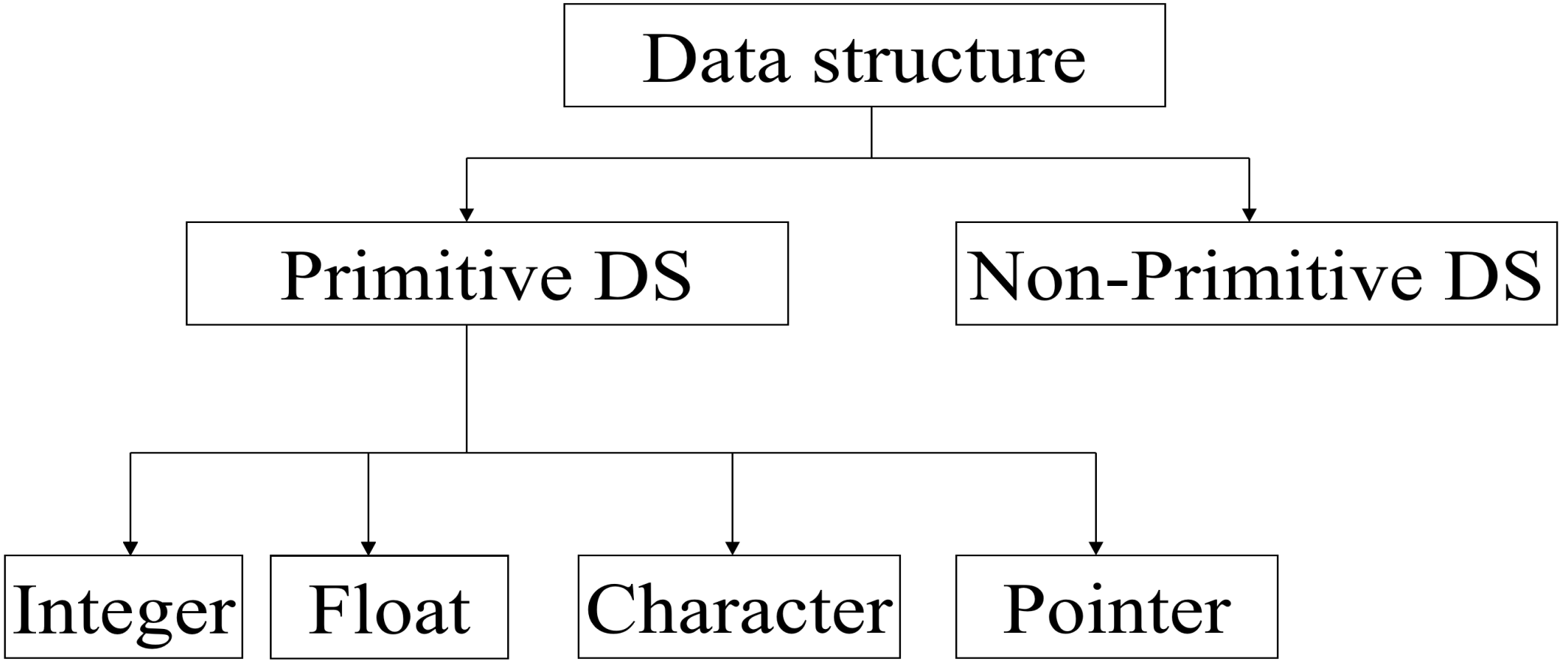
Introduction

- We need to store and retrieve information efficiently.

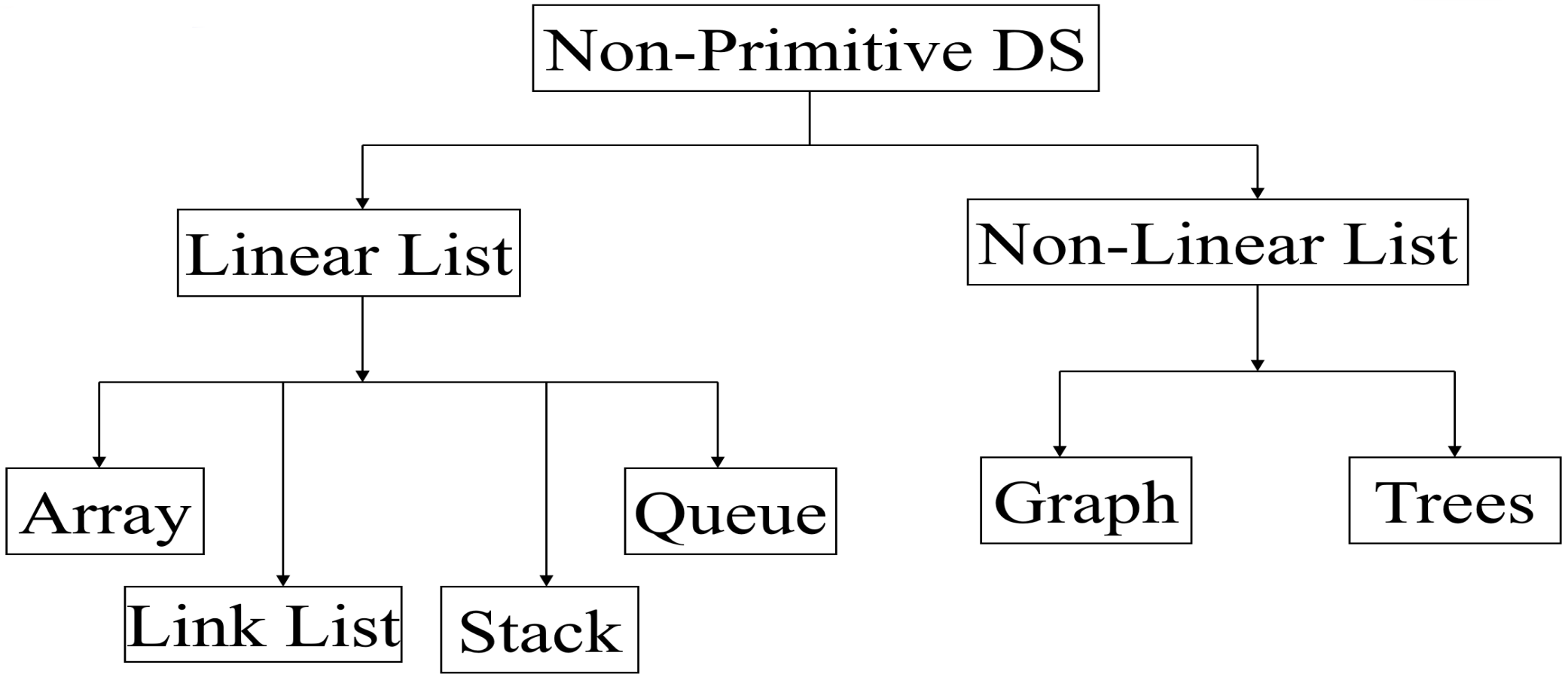


- Does efficiency really matter?
  - Processing power and storage capabilities going up, so…?
- Data structure: Any data representation and its associated operations.
- We have stored (inserted) the data, what do we have to consider next?
  - Search for specified items
  - Print or process the data items
  - Modify the value of any particular data item
  - Delete one or more specific items.

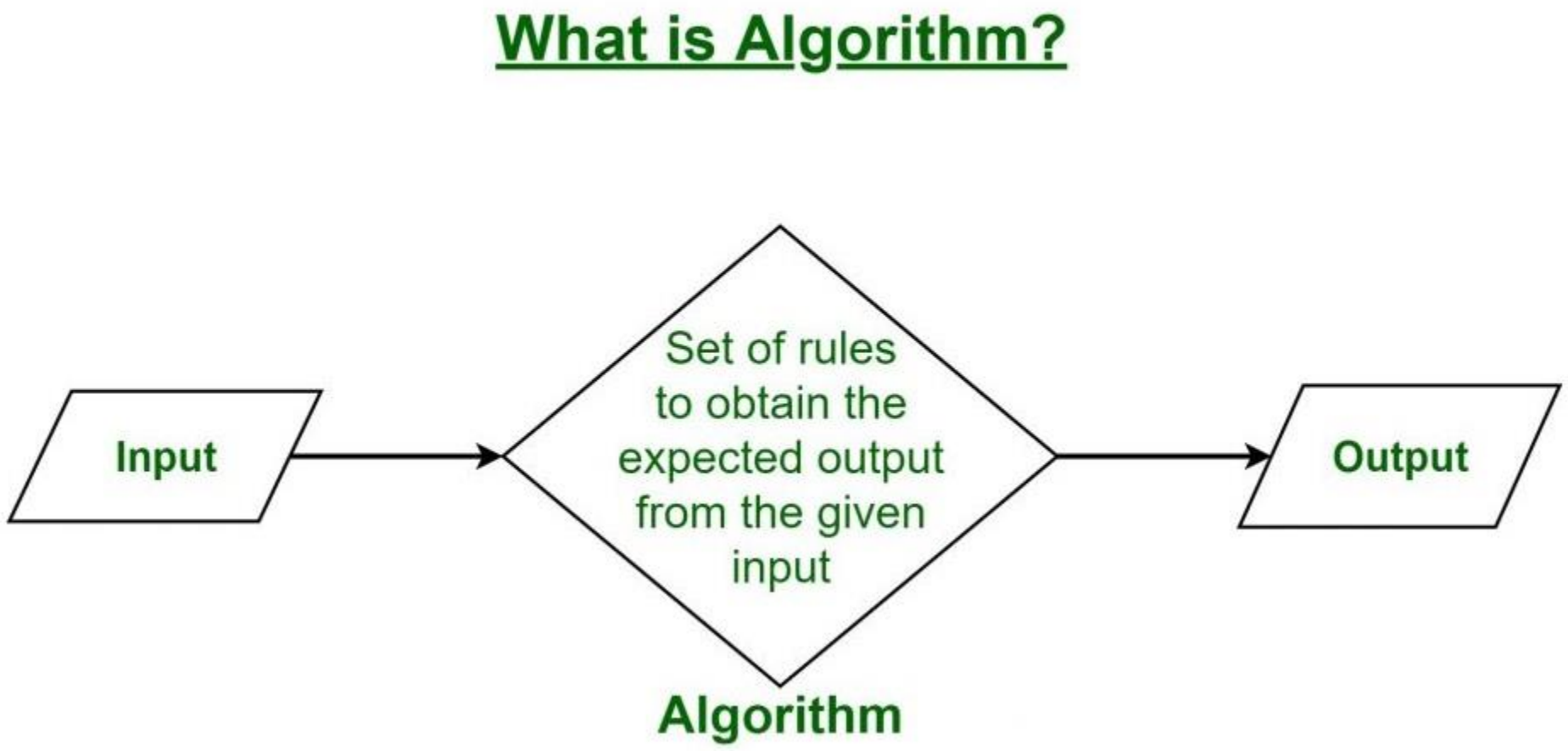
Data Structures



Data Structures



Algorithm


What is Algorithm?
Input
Set of rules to obtain the expected output from the given input
Output
Algorithm

Solutions

Introduction

- Why are DS important?

- Resource constraints.
  - Space (primary/secondary storage)
  - Time
- Cost of a solution ??