



Fundamentals of
Data Structures using C

Sorting Algorithms

B.Bhuvaneswaran, AP (SG) / CSE



9791519152



bhuvaneswaran@rajalakshmi.edu.in



RAJALAKSHMI
ENGINEERING COLLEGE

Introduction

- Sorting and searching are two of the most common operations performed by computers all around the world.
- The sorting operation arranges the numerical and alphabetical data present in a list, in a specific order or sequence.
- Searching, on the other hand, locates a specific element across a given list of elements.
- At times, a list may require sorting before the search operation can be performed on it.

Sorting Techniques

- Internal Sorting
- External Sorting

Internal Sorting

- All sorting techniques which require the data set to be present in the main memory are referred as internal sorting techniques.

Examples

- Insertion sort
- Selection sort
- Shell sort
- Bubble sort
- Quick sort
- Heap sort

External Sorting

- External Sorting, takes place in the secondary memory of a computer.
- Since the number of objects to be sorted is too large to fit in main memory.

Examples

- Merge Sort
- Multiway Merge
- Polyphase merge

Queries?

Thank You!