DATA STRUCTURES

LECTURE-1

* Program consists of two things Algorithms & Datastructures.

Algorithm: Step by step procedure.

Datastructure: The logical relationship that exists between individual element of data to carry out certain task.

* DS deals with the study of
  1. How the data is organized in memory.
  2. How effectively the data can be retrieved & manipulated.
  3. possible ways in which different data items are logically related.

→ **Selecting a Datastructure:**
  1. Analyze the problem.
  2. Determine the basic operation
  3. Select DS.

→ **Types:**

	Examples.
1. primitive DS	int, float, char....
2. Non primitive DS.	Arrays, structures, stacks.
3. Linear DS	stacks, queues, linkedlist
4. Non linear DS.	Trees, graphs.