

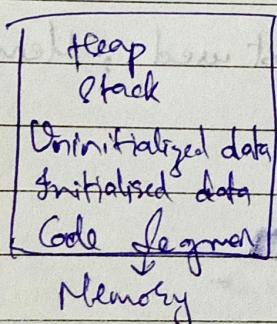
# Data Structure & Algorithm

- Data Structure is way to arrange data in main memory for efficient usage.
  - Arrays, linked list, stack, Queue, graph, BSTree, etc.
- Algorithm is sequence of steps to solve a given problem.
  - Sorting an array

Main memory  $\rightarrow$  RAM

- Database :- Collection of information in permanent storage for faster retrieval and updation.
- Data Warehousing :- Management of huge amount of legacy data.
- Big data.

Memory ~~area~~ layout



Static + global variable

- Stack holds the memory occupied by the functions.
- Heaps contains the data which is requested by the program as dynamic memory.