

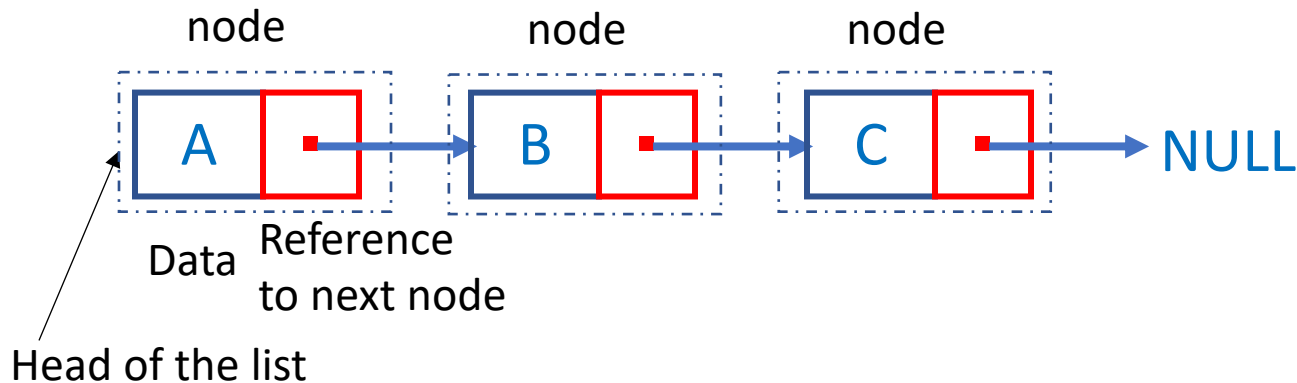
# **Application of memory management in C: Implementation of Linked List**

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# Linked List (Recap from Data Structure module)

A 'linked list' is a

- linear collection of data elements called 'nodes'
- each node points to the next node in the list
- unlike arrays, linked list nodes are not stored at contiguous locations; they are linked using pointers as shown below.



## Implementation of singly Linked List in C

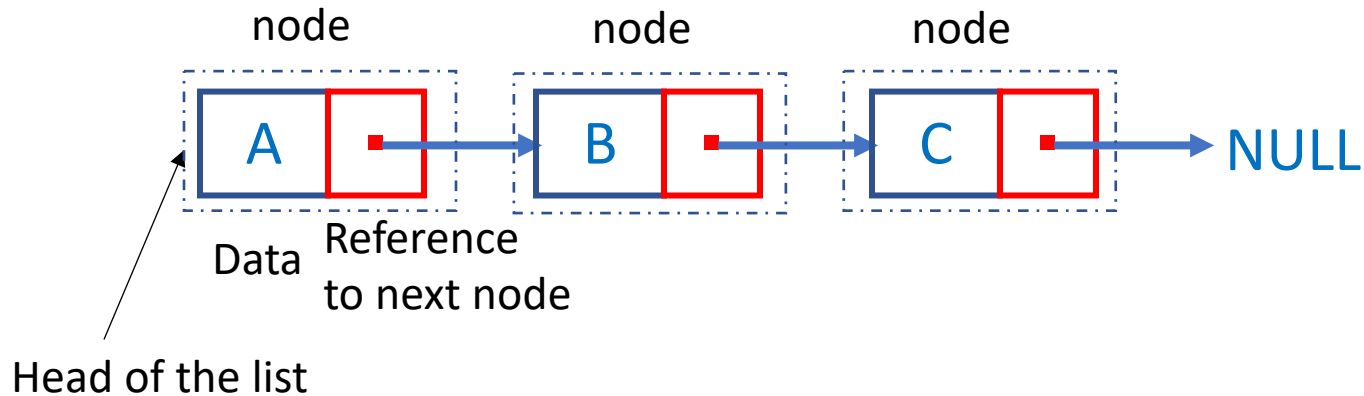
Our goal is to implement the following operations:

1. Append at the end of list
2. Search an element in the list
3. Print entire list from the start
4. Free memory occupied by a list

# Defining 'Node' of a list in C

A 'node' is a composite data-type which consists of

- a data
- and a reference to the next node



How to define a composite data-type in C?