

Data Structures in JS

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GOALS

1. Queues
2. Stacks
3. Linked List
4. Trees
5. Graph

Data Structures

A **data structure** is a particular way of organizing data in a computer so that it can be used effectively.

For example: using the *array* data structure.

Memory Location									
200	201	202	203	204	205	206	▪	▪	▪
U	B	F	D	A	E	C	▪	▪	▪
0	1	2	3	4	5	6	▪	▪	▪
Index									

1. Queues

A collection of elements/items that follows the first-in-first-out (FIFO) rule.



<https://www.geeksforgeeks.org/implementation-queue-javascript/>

2. Stacks

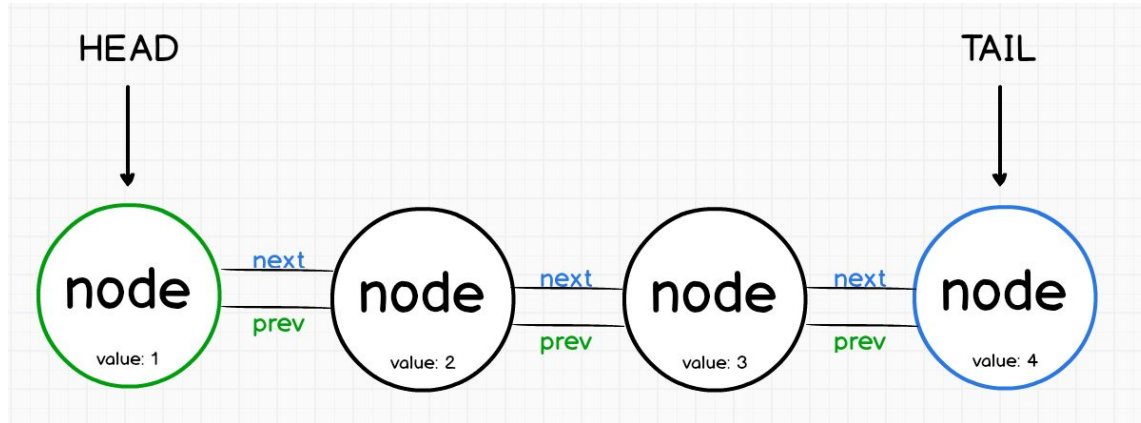
A collection of elements/items that follows the first-in-last-out (FILO) rule.



<https://www.geeksforgeeks.org/implementation-stack-javascript/>

3. Linked List

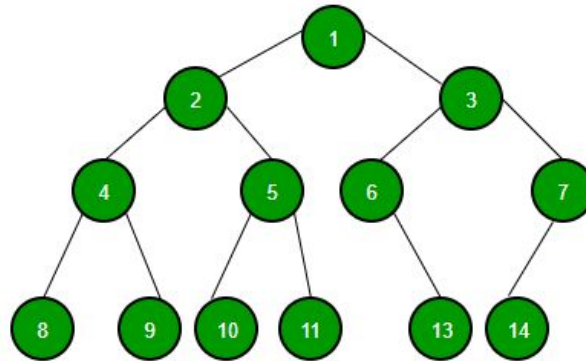
A “linked” list of nodes with one node deemed as the head and another node deemed as the tail.



<https://www.geeksforgeeks.org/implementation-linkedlist-javascript/>

4. Trees (Binary Search Tree)

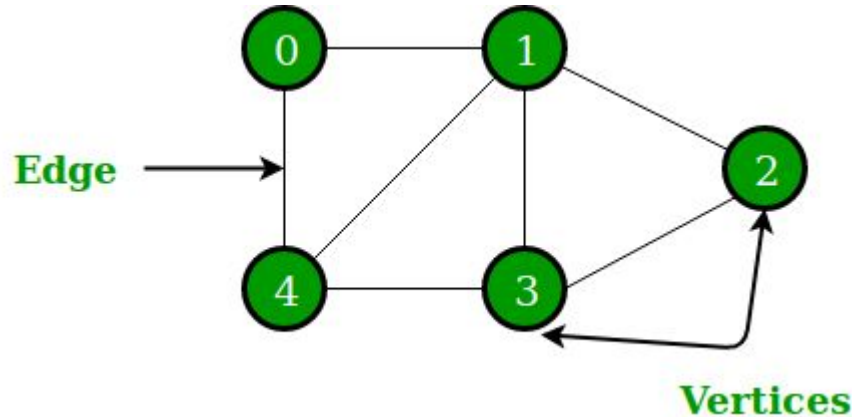
A tree whose elements have at most 2 children is called a binary tree (the left and the right child).



<https://www.geeksforgeeks.org/implementation-binary-search-tree-javascript/>

5. Graph

A Graph consists of a finite set of vertices(or nodes) and set of Edges which connect a pair of nodes.



<https://www.geeksforgeeks.org/graph-data-structure-and-algorithms/>