



DATA STRUCTURES



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1. **Array** :- An Array is a Collection of Variables of the same type.

index → 0 1 2 3
C O D E

Address → 700 701 702 703 (fig. Array)

2. **Linked list** :- In linked list the elements are not stored at contiguous memory location. The element in a linked list are linked using pointer as shown

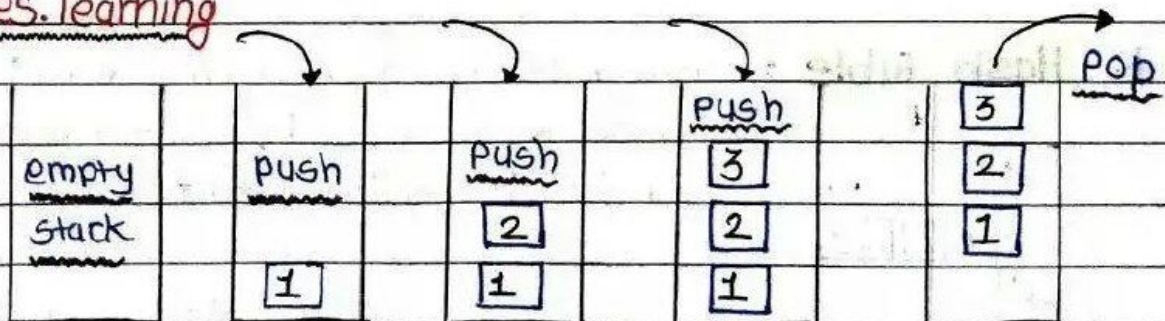
Head → A → B → C → NULL

Data Next

(fig. linked list)

3. **Stack** :- stack follows particular order called LIFO (Last In First Out) in which the operations are performed.

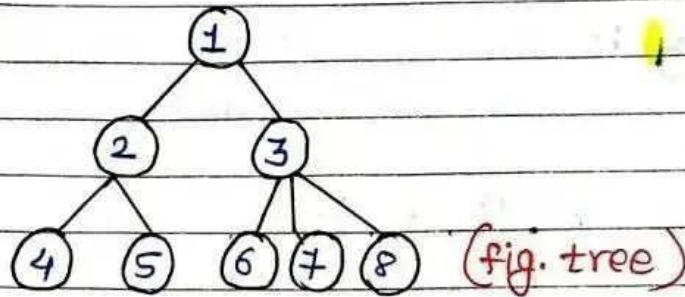
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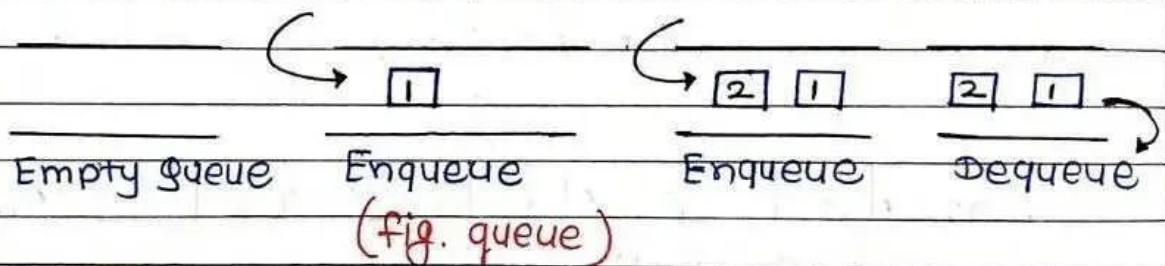
(fig. stack)

4. **Tree** :- A Tree is a non linear hierarchical data structure that consist of nodes connected by edge.

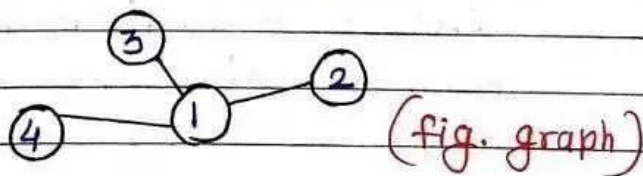
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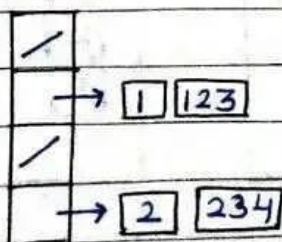
5. **Queue** :- Queue follows a particular order called FIFO (First In first Out) in which the operations are performed.



6. **Graph** :- A graph is a collection of nodes that have data and are connected to other nodes.



7. **Hash Table** :- Hash table represents data in form of key value in hash table. used for indexing data / values.



(fig. hash table)

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