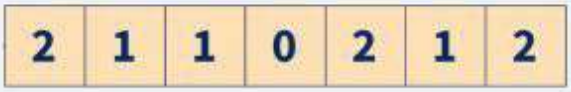
Brij Kishore Pandey

DON'T FORGET TO SAVE FOR LATER !

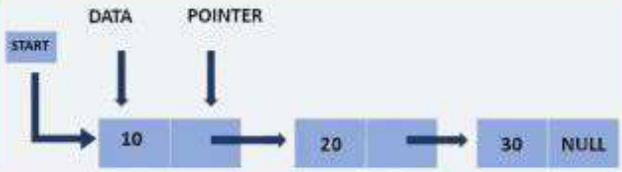
DATA STRUCTURE CHEATSHEET

Arrays



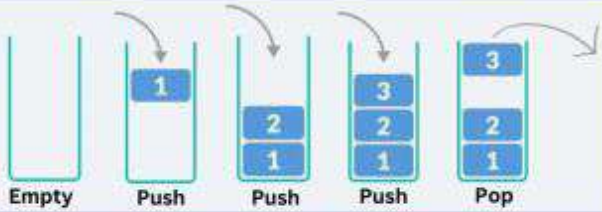
- Arrays store multiple elements in contiguous memory.
- Elements are accessed by index.
- Arrays have a fixed or resizable size.

Linked List



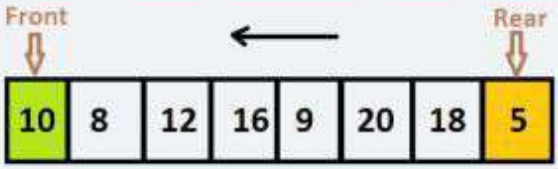
- LinkedLists store elements with next node references.
- They support dynamic size adjustments.
- Efficient insertion and deletion operations.

Stack



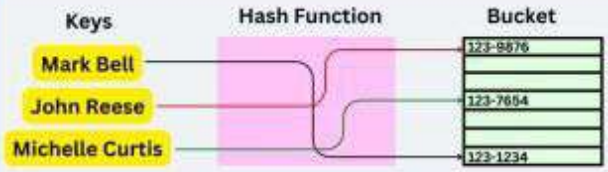
- Stacks follow last-in, first-out order.
- Efficient insertion and deletion at the top.
- Used for function calls, undo operations, etc.

Queue



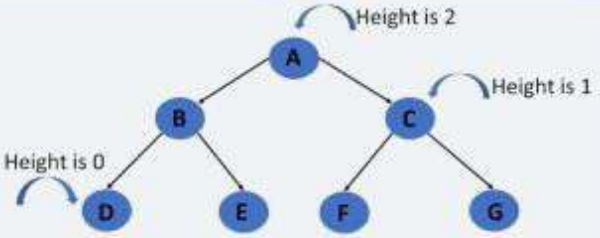
- Queues follow a first-in, first-out order.
- Efficient insertion at the rear and deletion at the front.
- Used for managing tasks, message passing, etc.

Hash Table



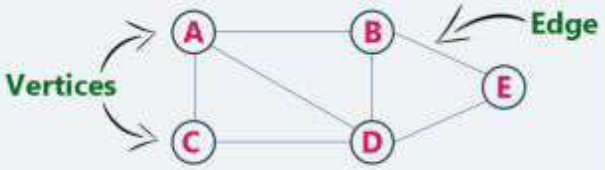
- Hash tables store key-value pairs for quick lookup.
- They use a hash function for indexing.
- Efficient retrieval, insertion, and deletion operations.

Tree



- Trees organize elements in a hierarchical structure.
- Elements have parent and child relationships.
- Used for hierarchy, searching, sorting, etc.

Graph



- Graphs represent relationships between entities.
- They consist of vertices and edges.
- Used for modeling networks, social connections, etc.