Activity about Singly Linked List

1. What is a singly linked list, and how does it differ from an array?

A singly linked list is made of nodes, each with data and a pointer to the next node. Unlike arrays that use continuous memory and allow fast index access, linked lists use scattered memory and need traversal. Arrays are fast to access, but linked lists are better for insertions and deletions.

2. When would you prefer a linked list over an array, and vice versa?

I'd use a linked list if I expect many insertions/deletions or if the size isn't fixed.

I'd use an array if I need fast random access or the size is stable.

3. How are linked lists used in real-world applications (e.g., browser history, undo functionality)?

Browser history - moving back/forward through nodes

Undo in editors - actions stored as nodes

OS memory management - track free blocks

Playlists & graphs - dynamic insertion and adjacency lists

4. Reference

GeeksforGeeks. ***Linked List Data Structure*****.** **https://www.geeksforgeeks.org/dsa/linked-list-data-structure/**