University of Caloocan City
College of Engineering
Computer Engineering Program

ACTIVITY ABOUT SINGLY LINKED LIST

1. WHAT IS A SINGLY LINKED LIST, AND HOW DOES IT DIFFER FROM ARRAY?

- It is a linear data structure where each element contains two parts called a node. The final node points to NONE, indicating the end of the list. Linked List stores in a scattered way and requires traversal from head to reach a particular element. Array on the other hand, stores elements in contiguous memory locations that allows direct access by index.

2. WHEN WOULD YOU PREFER A LINKED LIST OVER AN ARRAY, AND VICE VERSA?

- Linked List would be a greater choice if the number of elements is unknown and constantly changing, and also when frequent insertions or deletion are required. Array on the opposite, preferred when fast random access is important, when the size of the data is fixed and stable.

3. HOW ARE LINKED LIST USED IN REAL-WORLD APPLICATIONS, (E.G. BROWSERS, HISTORY, UNDO FUNCTIONALITY)?

- Linked Lists are used in a lot of real-world applications such as in web browsers, they present the history of the page you search and visit. It allows the user to navigate between site and pages. In text editors, they are used to implement undo and redo.

4. CITE YOUR REFERENCE/S

GeeksforGeeks (2025). Linked List Data Structure.
https://www.geeksforgeeks.org/dsa/linked-list-data-structure/

GeeksforGeeks (2025). Array Data Structure.
https://www.geeksforgeeks.org/dsa/array-data-structure-guide/

Goswami (2025). Top 10 Applications of Linked List Data Structure [2025].
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https://www.iquanta.in/blog/top-10-applications-of-linked-list-data-structure-2025/