Application of singly linked list

1]Image viewer – Previous and next images are linked and can be accessed by the next and previous buttons.

2]Previous and next page in a web browser – We can access the previous and next URL searched in a web browser by pressing the back and next buttons since they are linked as a linked list.

3]Music Player – Songs in the music player are linked to the previous and next songs. So we can play songs either from starting or ending of the list.

Applications of Circular Linked Lists:

1]Useful for implementation of a queue. Unlike this implementation, we don't need to maintain two-pointers for the front and rear if we use a circular linked list. We can maintain a pointer to the last inserted node and the front can always be obtained as next of last.

2]Circular lists are useful in applications to go around the list repeatedly. For example, when multiple applications are running on a PC, it is common for the operating system to put the running applications on a list and then cycle through them, giving each of them a slice of time to execute, and then making them wait while the CPU is given to another application. It is convenient for the operating system to use a circular list so that when it reaches the end of the list it can cycle around to the front of the list.

3]Circular Doubly Linked Lists are used for the implementation of advanced data structures like the Fibonacci Heap.

Application of Doubly Linked Lists:

1]Redo and undo functionality.

2]Use of the Back and forward button in a browser.

3]The most recently used section is represented by the Doubly Linked list.

4]Other Data structures like Stack, HashTable, and BinaryTree can also be applied by Doubly Linked List.