

Practical 1 Questions

Q4. In A Circularly Linked list the last node points to the first node. Any node can be the starting point of the list and traversing the list means stopping when the first visited node is visited again. However, in a singly linked list there is a pointer called 'head' pointing to the first node of the list and the last node of the list is pointing to null.

Q5. I would prefer to use a linked list to an array if I didn't know the size of the array at the point of initializing or when the 'list' of objects would need to be resized. When I know that I will perform many operations on the 'list' like, add, set, delete I would use a linked list. Also, when u will want to insert items into the middle of the 'list' or when you don't need random access to any elements in the list.

Q6. Circular linked list are used to run applications on our CPU's. When multiple programs are running on your computer and there isn't space to run all programs simultaneously, it puts them in a circular list. The OS traverses the list executing the program for a certain amount of time then going to the next program and around in loop. This makes it feel to the user like all programs are run simultaneously.

Multiplayer games use circular linked lists. Each player on the team gets one roll of the dice and then the list traverses to the next person and keeps looping through the players. This is very useful as the players in the game stay the same and this way is less costly on the memory rather than starting a new linked list every time a new round starts.