Bt21105039 - ECE

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**ASSIGNMENT-02**

**(Circular Linked List)**

Q1. While traversing a single-circular linked list, which condition establishes that the traversing element/variable has reached the first element?

Ans. Since tailnode(last element) of a circularlinked list stores the address of headnode(first element), therefore while traversing the linkedlist using while or for loop if currentnodes points to the headnode this means we have reached the first element.

//code

current=head->next;

//condition using while loop

while(current!=head){ current=current->next; }

//Condition using for loop

for(; current!=head; current=current->next){ }

Q2. What are the practical applications of a circular linked list? (Try to find applications in your respective fields)

Ans. Applications:

* Multiple running applications can be placed in a circular linked list on an operating system. The OS keeps on iterating over these applications.
* Implementation of Advanced data structures like Fibonacci Heap.
* The browser cache which allows you to hit the BACK button.
* Undo functionality in Photoshop or Word.
* Circular linked list used Most recent list (MRU LIST)
* Round Robin scheduling technique in games.
* To repeat the playlist during audio video streaming.