

1. Write a program to create a circular linked list with 5 nodes, where each node contains an integer. Display the list in a circular manner
2. Modify the above program to allow inserting a node at the beginning of the circular linked list.

Enhances the above by inserting at head.

3. Add functionality to insert a node at the end of a circular linked list.

insert new node just before head by updating `tail->next`

4. Write a function to delete the first node (head) in a circular linked list and adjust pointers accordingly.

Handle deletion of `head` node; update `tail->next` and free memory.

ASSIGNMENT QUESTION

5. Write a function to delete the last node in a circular linked list and ensure the list remains circular.

Traverse to node before tail, free tail, adjust pointers.

6. Write a function to search for a given element in the circular linked list and return its position. If not found, return -1.

Traverse circularly and find first occurrence, return position or -1.

7. Simulate a round-robin CPU scheduling algorithm using a circular linked list. Each node should represent a process with:

- process ID
- burst time
- remaining time

Implement a scheduler that:

- Executes each process in a round (e.g., 2 time units)
- Removes processes once their burst time is complete
- Displays each scheduling step and remaining queue