

Data Structure Quiz 4

Total Marks 10

Name: _____

Roll No. _____

Question: Implement a function to insert and delete a node at start in singly circular linked list.

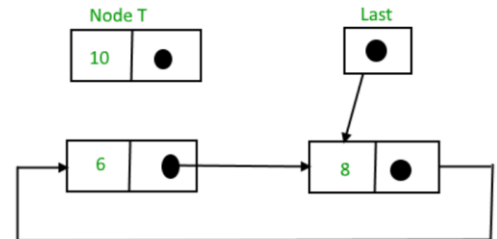
```
class Node {
public:
    int data;
    Node* next;
    Node(int val) : data(val), next(nullptr) {}
}Node *head;

void insertAtStart(int val) {
    Node* newNode = new Node(val);
    if (!head) {
        head = newNode;
        head->next = head; // Point to itself fo
    }
    else {
        Node* temp = head;
        while (temp->next != head) {
            temp = temp->next;
        }
        temp->next = newNode;
        newNode->next = head;
        head = newNode;
    }
}

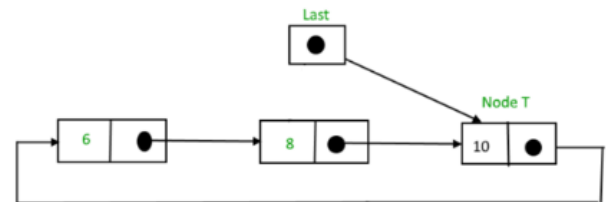
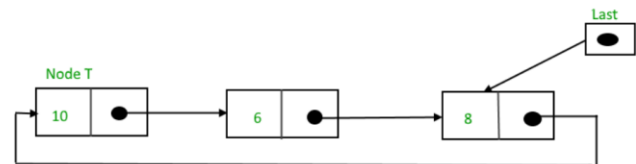
void deleteAtStart() {
    if (!head) {
        cout << "List is empty. Cannot delete." << endl;
        return;
    }

    Node* temp = head;
    Node* lastNode = head;
    while (lastNode->next != head) {
        lastNode = lastNode->next;
    }

    if (temp == lastNode) {
        // Only one node in the list
        delete temp;
        head = nullptr;
    }
    else {
        head = temp->next;
        lastNode->next = head;
        delete temp;
    }
}
```



After insertion,



After Deletion

