

Assignment 9

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Doubly Linked List

1)Start (Ascending order list)

2)Define structure for nodes of circular linked list and put head = NULL

3)Insert(input)

i)Create a new node and put newNode->prev =
newNode->next = NULL and newNode->data = input

ii)if (head == NULL) i.e. list is empty head = newNode
return

iii)Create a temp node

iv)temp = head

v)while (temp->data < input && head != temp->next)
temp = temp->next

vi)newNode->next = temp

vii)newNode->prev = temp->prev

viii)temp->prev = newNode

ix)temp = temp->prev

x)temp = temp->prev

xi)temp->next= newNode

xii)Now, put temp = head

xiii)if (temp->data < input), head = newNode

4)SearchDelete(key)

i)temp = head

ii)if (temp == NULL), return Not Found

iii)while (temp->data != key && temp->next != head)
temp = temp->next

iv)if (temp->data != key) return Not Found

v)previous = temp->prev

vi)previous->next = temp->next

vii)previous = previous->next

viii)previous->prev = temp->prev

ix)if (head == temp), head = temp->next

x)free(temp)

5)Stop