DATA STRUCTURES LAB 5

Name: Ahmed Kasteer

Roll Number: 20F-0336

Section 3D

Lab 5

#include <iostream>

using namespace std;

struct Node

{

int data;

Node\* link;

};

class LinkedList

{

public:

Node \* head;

Node \* temp = new Node;

LinkedList()

{

head = NULL;

}

//insert at head

int insertFunction(int x)

{

temp->data = x;

temp->link = head;

head = temp;

return x;

}

// insert at end

int InsertatEnd(int x)

{

temp->data = x;

temp->link = NULL;

Node\* last = new Node;

if (head = NULL)

{

head = temp;

return 0;

}

else

{

while (temp != NULL)

{

temp = temp->link;

last->link = temp;

}

}

return x;

}

//insert at nth position

/\*int InsertatN(int x, int n)

{

Node\* temp1 = new Node;

temp1->data = x;

temp1->link = NULL;

if (n == 1)

{

temp1->link = head;

head = temp;

return 0;

}

Node\* temp2 = new Node;

temp2 = head;

for (int i = 0; i < n - 2; i++)

{

temp2 = temp2->link;

}

temp1->link = temp2->link;

temp2->link = temp1->link;

return x;

}\*/

void deletenode(Node\*head, int x, int n)

{

Node \* prev = new Node;

if (head == NULL)

{

return;

}

if (head != NULL && temp->data == x)

{

head = NULL;

delete temp;

}

else

{

while (temp!= NULL && temp->data != x)

{

prev = temp;

temp = temp->link;

}

}

}

void Print()

{

temp = head;

while (temp != NULL)

{

cout << temp->data;

temp = temp->link;

}

}

};

int main()

{

LinkedList obj;

obj.insertFunction(3);

obj.InsertatEnd(5);

obj.Print();

obj.deletenode(0,3,1);

system("pause");

return 0;

}