LAB 3

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// ConsoleApplication1.cpp : Defines the entry point for the console application.

//

#include "stdafx.h"

#include<iostream>

using namespace std;

struct node

{

int data;

node \*next;

};

class list

{

int sum = 0;

private:

node \*head, \*tail;

public:

list()

{

head = NULL;

tail = NULL;

}

void createnode(int value)

{

node \*temp = new node;

temp->data = value;

temp->next = NULL;

if (head == NULL)

{

head = temp;

tail = temp;

temp = NULL;

}

else

{

tail->next = temp;

tail = temp;

}

}

void display()

{

node \*temp = new node;

temp = head;

while (temp != NULL)

{

cout << temp->data << "\t";

temp = temp->next;

}

}

int add(){

node\* ptr = head;

if (head != NULL){

do{

sum += ptr->data;

ptr = ptr->next;

}while (ptr != NULL);

}

return sum;

}

};

void main(int argc, \_TCHAR\* argv[])

{

int choice, value,SUM = 0;

list li = list();

cout << "LINK LIST" << endl ;

cout << "DO YOU WANT TO CREATE NODE " << endl;

cout << "CHOICE:" << endl;

cout << "1 TO CREATE" <<endl;

cout << "2 TO END PROGRAM" << endl;

cin >> choice;

while(choice == 1){

cout << "WHAT VALUE YOU WANT TO STORE IN THE NODE:";

cin >> value;

li.createnode(value);

cout << "1 TO CREATE AND 2 TO CONTINUE THE PROGRAM" << endl;

cin >> choice;

}

cout <<endl << "DO YOU WANT TO DISPLAY THE LINK LIST OR DISPLAY THE ADDED UP VALUES OF LINK LIST OR BOTH" << endl;

cout << "CHOICE:" << endl;

cout << "1 TO DISPLAY THE LINK LIST" << endl;

cout << "2 DISPLAY THE ADDED UP VALUES OF LINK LIST" << endl;

cout << "3 FOR BOTH" << endl;

cout << "4 TO END PROGRAME" << endl;

cin >> choice;

if (choice == 1){

li.display();

cout << endl;

}

if (choice == 2){

SUM = li.add();

cout << "Sum of all the nodes :"<< SUM << endl;

}

if (choice == 3){

li.display();

SUM = li.add();

cout <<endl<<"Sum of all the nodes :" << SUM << endl;

}

if (choice == 4)

cout <<"THANKYOU"<< endl; }

OUTPUT:

