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SECTION BATCH#3 A

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#include<iostream> //header files

#include<conio.h>

using namespace std;

struct link //structure of node

{

int data; //int data type store

link \*next; //create next node structure

}; // Structure cloased

class List //name of class

{ //// where we create the links and combine them in a list

private: //data member

link \*first; // name of head //Head start or here its name is first...

public: //member function

List() //constructure

{

first=NULL; //tip null always first and null as link list is empty

}

/////////////////////////////////////////////

void add(int d) //received value of int data from main

{

link \*ptr,\*temp;

if(first==NULL)// will execute only once as when we will add first element as first is null.

{

first=new link; // vvimp steps. Create a structure, and reference will updated have a close look at first.

first->data=d; // assign value of d come from main function to first of data.

first->next=NULL; // Assign null

}

else

{

ptr=first;

while(ptr->next!=NULL)

{

ptr=ptr->next;// same as increment statement as it moves toward null

}

temp=new link; // these three lines add new elements

temp->data=d;

temp->next=NULL;

ptr->next=temp; // link the nodes with previous ones....

}

}

///////////////////////////////////////////////////////////

void display() //display funtion

{

link \*temp;

temp= first;

cout<<"The list follows:"<<endl<<endl;

while(temp!=NULL) // move towards null

{

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

temp=temp->next; // same as increment statement as it moves toward null

}

}

////////////////////////////////////////////////////////////

void search() //search function.

{

int value, pos = 0;

bool sch = false;

if (first== NULL)

{

cout<<"List is empty"<<endl;

return;

}

cout<<"Enter the value to be searched: ";

cin>>value;

struct link \*s;

s =first;

while (s != NULL)

{

pos++;

if (s->data== value)

{

sch = true;

cout<<"Element "<<value<<" is found at position "<<pos<<endl;

}

s = s->next;

}

if (!sch)

cout<<"Element "<<value<<" not found in the list"<<endl;

}

};

////////////////////////////////////////////////////////////////

int main() //main class

{

List l; //objet of class

// create a menu.....using switch like one for add two for display

l.add(007);

l.add(345); //enter data and passing value in function

l.add(74);

l.add(48);

l.add(49);

l.add(7);

l.display();

cout<<endl;

l.search(); //calling seacrh

l.display(); // //calling display

getchar();

getchar();

return 0;

} //end class

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