**Code:**

#include<iostream>

using namespace std;

struct node

{

int data;

struct node \*next;

} Node;

int length( node \* head )

{

intlen = 0;

node \* current = head;

while(current)

{

len++;

current = current->next;

}

return len;

}

void addRemainingDigits(node \*L1, int \*carry, node \*\*result, int diff);

void addListRecursively(node \*L1, node \*L2, int \*carry, node \*\*result);

node \* createNode(int value)

{

node \* newNode = (node \*)malloc(sizeof(node));

newNode->data = value;

newNode->next = NULL;

return newNode;

}

void push(node \*\*head, int value)

{

node \*newNode = createNode (value);

if(!(\*head) ){

\*head = newNode;

}

else{

newNode->next = (\*head);

\*head = newNode;

}

}

void addTwoNumbers(node \*L1, node \*L2, int \*carry, node \*\*result)

{

int len1 = length( L1 );

int len2 = length( L2 );

int diff = 0;

if(len1 < len2)

{

node \* current = L1;

L1 = L2;

L2 = current;

}

diff = abs(len1-len2);

node \* current = L1;

while(diff--)

current = current->next;

addListRecursively(current, L2, carry, result);

diff = abs(len1-len2);

addRemainingDigits(L1, carry, result, diff);

if(\*carry)

{

push(result, \*carry);

}

return;

}

void addListRecursively(node \*L1, node \*L2, int \*carry, node \*\*result)

{

int sum;

if(!L1)

return;

addListRecursively(L1->next, L2->next, carry, result);

sum = L1->data + L2->data + (\*carry);

int value = sum%10;

\*carry = sum/10;

push(result, value);

return;

}

void addRemainingDigits(node \*L1, int \*carry, node \*\*result, int diff){

int sum = 0;

if(!L1 || !diff)

return;

addRemainingDigits(L1->next, carry, result, diff-1);

sum = L1->data + (\*carry);

int value = sum%10;

\*carry = sum/10;

push(result, value);

return;

}

void printList( node \* head ){

node \* current = head;

while(current){

cout<<current->data;

current = current->next;

}

}

int main(){

int v1,v2,n1,n2;

int ch1=1,ch2=1;

node \* L1 = NULL;

node \* L2 = NULL;

node \* result = NULL;

int carry = 0 ;

cout<<"minimum length of 1st infinite number\n";

cin>>n1;

cout<<"enter the 1st number in reverse order\n";

for(inti=0;i<n1-1;i++)

{cin>>v1;

push(&L1,v1);}

while(ch1==1)

{

cin>>v1;

push(&L1,v1);

cout<<"want to enter more(1/0)\n";

cin>>ch1;

}

cout<<"minimum length of 2nd infinite number in reverse order\n";

cin>>n2;

cout<<"enter the 2nd number\n";

for(int j=0;j<n2-1;j++)

{cin>>v2;

push(&L2,v2);}

while(ch2==1)

{

cin>>v2;

push(&L2,v2);

cout<<"want to enter more(1/0)\n";

cin>>ch2;

}

cout<<"1st number\n";

printList(L1);

cout<<"\n";

cout<<"2nd number\n";

printList(L2);

cout<<"\n";

addTwoNumbers(L1,L2, &carry, &result);

printList(result);

cout<<"\n";

return 0;

}