twoint.c

```c
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
#include<string.h>
struct NODE
{
int info;
struct NODE*link;
};
typedef struct NODE*node;
node getnode()
{
node x;
x=(node)malloc(sizeof(struct NODE));
if(x==NULL)
{
printf("out of mamory\n");
exit(0);
}
return x;
}
node ins_front(node first,int item)
{
node temp;
temp=getnode();
temp->info=item;
temp->link=first;
return temp;
}
node extract(char *s,node head)
{
    int i,n;
    for(i=0;i<strlen(s);i++)
    {
    n=s[i]-'0';
    head=ins_front(head,n);
```

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```
38      return head;
39  }
40
41  node addlong(node head1,node head2,node head3)
    {
        int temp,sum,carry=0;
        node cur1,cur2;
45      cur1=head1;
46      cur2=head2;
47      while(cur1!=NULL&&cur2!=NULL)
48      {
49          temp=cur1->info+cur2->info+carry;
50          if(temp>9)
51          {
52          sum=temp%10;
53          carry=temp/10;
54          }
55          else
56          {
57          sum=temp;
58          carry=0;
59          }
60          head3=ins_front(head3,sum);
61          cur1=cur1->link;
62          cur2=cur2->link;
63      }
64      while(cur1!=NULL)
65      {
66      temp=cur1->info+carry;
67      if(temp>9)
68      {
69      sum=temp%10;
70      carry=temp/10;
71      }
72      else
73      {
```

Line 38, Column 1

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```
    {
    sum=temp;
    carry=0;
    }
    head3=ins_front(head3,sum);
    cur1=cur1->link;
    }
  while(cur2!=NULL)
    {
    temp=cur2->info+carry;
    if(temp>9)
    {
    sum=temp%10;
    carry=temp/10;
    }
    else
    {
    sum=temp;
    carry=0;
    }
    head3=ins_front(head3,sum);
    cur2=cur2->link;
    }

    if(cur1==NULL&&cur2==NULL)
    {
        if(carry==1)
        head3=ins_front(head3,carry);
    }
    return head3;
  }


void display(node first)
{
node cur;
```

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```
109   if(first==NULL)
110   {
      printf("Empty\n");
      return;
113   }
114   cur=first;
115   while(cur!=NULL)
116   {
117   printf("%d\t",cur->info);
118   cur=cur->link;
119   }
120   }
121   void main()
122   {
123       int ch;
124       node head1=NULL;
125       node head2=NULL;
126       node head3=NULL;
127       char s1[30],s2[30];
128       printf("\nEnter first integer\n");
129       scanf("%s",s1);
130       head1=extract(s1,head1);
131       display(head1);
132       printf("\nEnter second integer\n");
133       scanf("%s",s2);
134       head2=extract(s2,head2);
135       display(head2);
136       head3=addlong(head1,head2,head3);
137       printf("\nThe result is\n");
138       display(head3);
139
140   }
```