#include<stdio.h>

#include<malloc.h>

#include<conio.h>

typedef struct Node

{

int info ;

struct Node \*next;

}node;

void createsig(node\*\*,int);

void insertAtloc(node \*\*,int,int,int);

void display(node \*);

void main()

{

int ch, item, pos,loc,i;

node \*start ;

start = NULL;

clrscr();

printf("Enter number of node: ");

scanf("%d",&i);

createsig(&start,i);

printf("\nThe list is : ");

display(start);

printf("\nEnter the loc : ");

scanf("%d",&loc);

printf("\n\nEnter the item to be inserted at loc : ");

scanf("%d",&item);

insertAtloc(&start,item,loc,i);

printf("\nNow the list is : ");

display(start);

getch();

}

void createsig(node \*\*start,int i)

{ int item ,k=1;

while(i)

{ node \*ptr,\*last;

printf("\nEnter the info for node %d : ",k);

scanf("%d",&item);

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

ptr->info=item;

ptr->next=NULL;

if(\*start==NULL)

{

\*start = ptr ;

}

else

{ last = \*start;

while(last->next != NULL)

{last=last->next;

}

last->next = ptr ;

}

i--;

k++;

}

}

void insertAtloc(node \*\*start,int item , int i,int k )

{

node \*ptr,\*loc,\*last;

int n=1 ;

i=i-1;

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

ptr->info=item;

loc = \*start ;

if(\*start==NULL)

{

ptr->next = NULL ;

\*start = ptr ;

}

else if(i<=k)

{ while(n != i)

{

loc=loc->next;

n++;

}

ptr->next = loc->next ;

loc->next = ptr ;

}

else

{

last = \*start;

while(last->next != NULL)

{last=last->next;

}

last->next = ptr ;

}

}

void display(node \*start)

{

while(start !=NULL)

{ printf("\t %d",start->info);

start = start->next;

}

}