C-Program to concatenate two lists & reverse the list( LINKED LIST)

#include<stdio.h>

#include<conio.h>

#include<alloc.h>

#include<process.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("mem full\n");

exit(0);

}

return x;

}

NODE insert\_rear(NODE first,int item)

{

NODE temp,cur;

temp=getnode();

temp->info=item;

temp->link=NULL;

if(first==NULL)

return temp;

cur=first;

while(cur->link!=NULL)

cur=cur->link;

cur->link=temp;

return first;

}

void display(NODE first)

{

NODE temp;

if(first==NULL)

printf("list empty");

for(temp=first;temp!=NULL;temp=temp->link)

{

printf("%d\n",temp->info);

}

}

NODE concat(NODE first,NODE second)

{

NODE cur;

if(first==NULL)

return second;

if(second==NULL)

return first;

cur=first;

while(cur->link!=NULL)

cur=cur->link;

cur->link=second;

return first;

}

NODE reverse(NODE first)

{

NODE cur,temp;

cur=NULL;

while(first!=NULL)

{

temp=first;

first=first->link;

temp->link=cur;

cur=temp;

}

return cur;

}

void main()

{

int item,choice,pos,i,n;

NODE first=NULL,a,b;

clrscr();

for(;;)

{

printf("1.insert\_front\n2.concat\n3.reverse\n4.dislay\n5.exit\n");

printf("enter the choice\n");

scanf("%d",&choice);

switch(choice)

{

case 1:printf("enter the item\n");

scanf("%d",&item);

first=insert\_rear(first,item);

break;

case 2:printf("enter the no of nodes in 1\n");

scanf("%d",&n);

a=NULL;

for(i=0;i<n;i++)

{

printf("enter the item\n");

scanf("%d",&item);

a=insert\_rear(a,item);

}

printf("enter the no of nodes in 2\n");

scanf("%d",&n);

b=NULL;

for(i=0;i<n;i++)

{

printf("enter the item\n");

scanf("%d",&item);

b=insert\_rear(b,item);

}

a=concat(a,b);

display(a);

break;

case 3:first=reverse(first);

display(first);

break;

case 4:display(first);

break;

default:exit(0);

}

}

getch();

}