/*doubly link list copy*/

```c
#include<stdio.h>
#include<stdlib.h>
struct node
{
        int data;
        struct node*link;
};
struct node*header;
struct node*header1;
struct node*create_ll(struct node*);
struct node*display(struct node*);
struct node*copy(struct node*,struct node*);
int main()
{
        int choice=0;
        while(choice!=4)
        {
                printf("**main menu**\n");
                printf("1.create list\n2.display the list\n3.copy the linked list into another linked list\n4.exit\n");
                printf("enter your choice\n");
                scanf("%d",&choice);
                switch(choice)
                {
                        case 1:header=create_ll(header);
                        break;
                        case 2:header=display(header);
                        break;
                        case 3:header1=copy(header1,header);
                        break;
```

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                        case 4:exit(0);

                        default:

                                printf("invalid choice\n");

                }

        }

}

struct node*create_ll(struct node*header)

{

        struct node*new_node,*ptr;

        int item;

        printf("enter -1 to end\n");

        printf("enter the data: \n");

        scanf("%d",&item);

        while(item!=-1)

        {

                new_node=(struct node*)malloc(sizeof(struct node*));

                new_node->data=item;

                if(header==NULL)      //list is empty

                {

                        new_node->link=NULL;

                        header=new_node;

                }

                else

                {

                        ptr=header;

                        while(ptr->link!=NULL)

                        {

                                ptr=ptr->link;

                        }

                                ptr->link=new_node;

                                new_node->link=NULL;
```

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                }
                printf("enter the data: \n");
                scanf("%d",&item);
        }
        printf("link list is created\n");
        return header;
}
struct node*display(struct node*header)
{
        printf("the linked list is below\n");
        struct node*ptr;
        ptr=header;
        while(ptr!=NULL)        //list is not empty
        {
                printf("%d\n",ptr->data);
                ptr=ptr->link;
    }
    return header;
}
struct node*copy(struct node*header,struct node*header1)
{
        struct node*new_node;
        struct node*ptr,*ptr1;
        new_node=(struct node*)malloc(sizeof(struct node*));
        new_node->data=NULL;
        header1=new_node;
        ptr1=header1;
        ptr=header;
        while(ptr!=NULL)
        {
                header1->data=ptr->data;
```

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                ptr1->link=header1;

                ptr1=header1;

                ptr=ptr->link;

        }

        printf("list is copied\n");

        return header1;

}
```