```c
/*doubly link list copy*/
#include<stdio.h>
#include<stdlib.h>
struct node
{
	int data;
	struct node*llink;
	struct node*rlink;
};
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);
```

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                        break;
                        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->rlink=NULL;
                        new_node->llink=NULL;
                        header=new_node;
                }
                else
                {
                        ptr=header;
                        while(ptr->rlink!=NULL)
                        {
                                ptr=ptr->rlink;
                  }
```

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                                        ptr->rlink=new_node;
                                        new_node->llink=ptr;
                                        new_node->rlink=NULL;
                        }
                        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->rlink;
   }
   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;
```
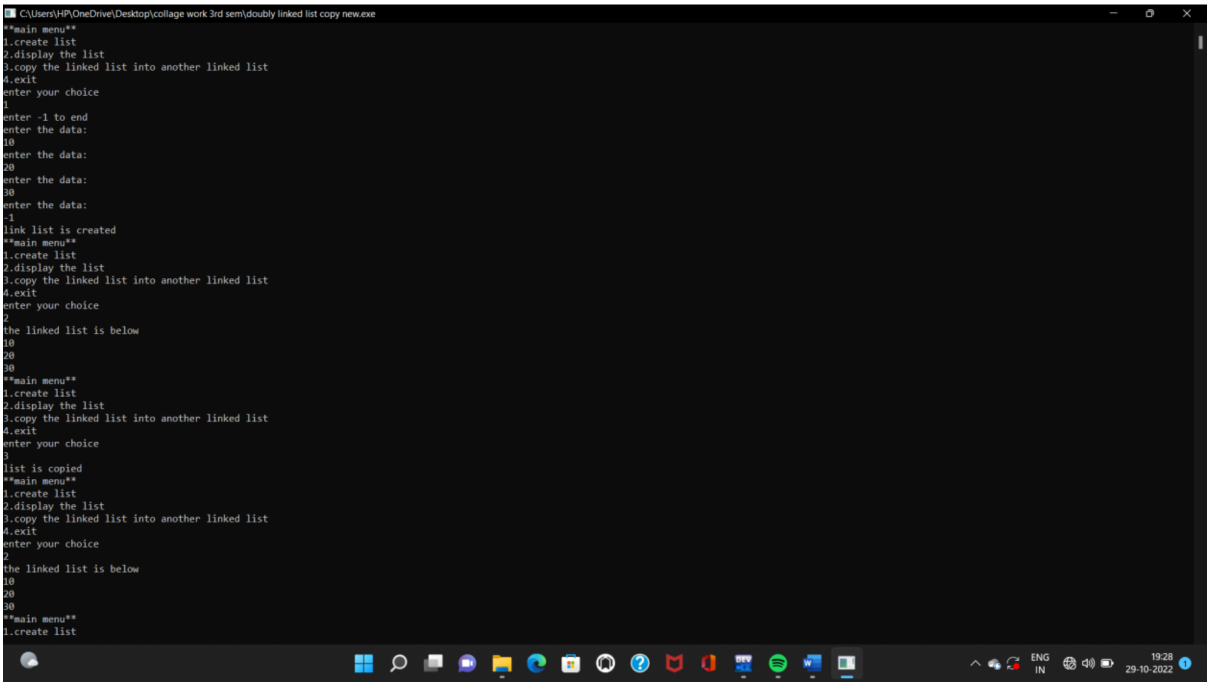
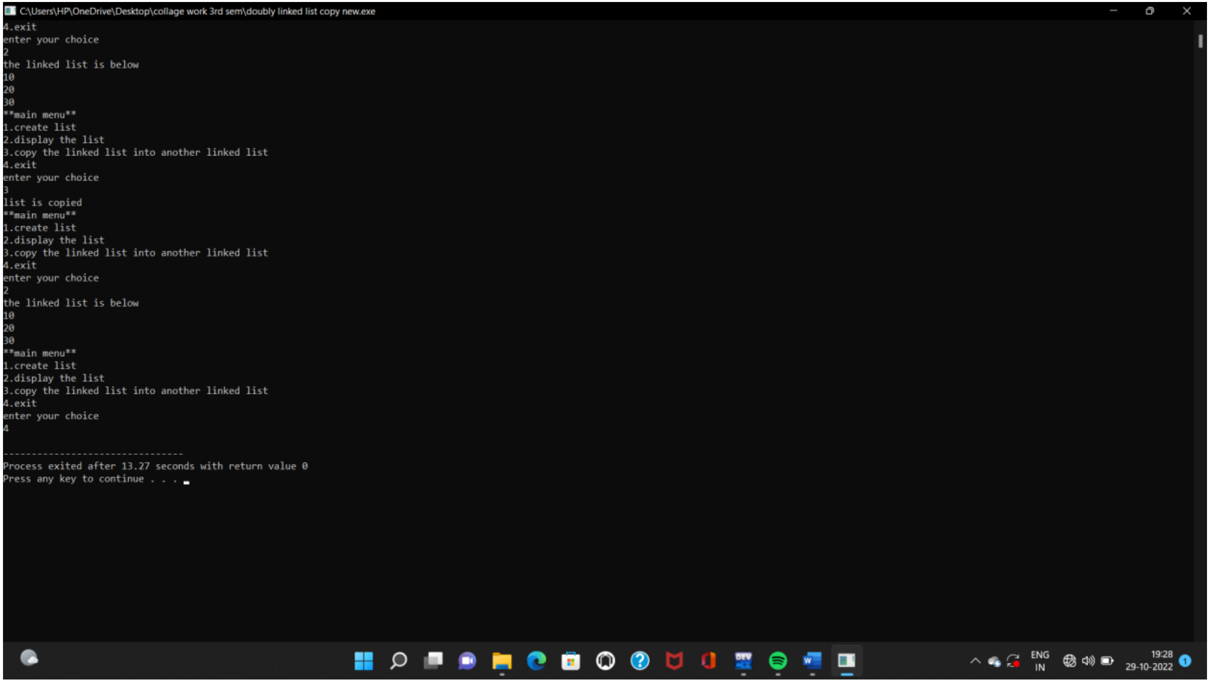

```
    while(ptr!=NULL)
    {
        new_node=(struct node*)malloc(sizeof(struct node*));
        new_node->data=ptr->data;
        ptr1->rlink=new_node;
        new_node->llink=ptr;
        ptr1=new_node;
        ptr=ptr->rlink;
    }
    printf("list is copied\n");
    return header1;
}
```


C:\Users\HP\OneDrive\Desktop\collage work 3rd sem\doubly linked list copy new.exe
ENG
IN
19:28
29-10-2022

```
**main menu**
1.create list
2.display the list
3.copy the linked list into another linked list
4.exit
enter your choice
1
enter -1 to end
enter the data:
10
enter the data:
20
enter the data:
30
enter the data:
-1
link list is created
**main menu**
1.create list
2.display the list
3.copy the linked list into another linked list
4.exit
enter your choice
2
the linked list is below
10
20
30
**main menu**
1.create list
2.display the list
3.copy the linked list into another linked list
4.exit
enter your choice
3
list is copied
**main menu**
1.create list
2.display the list
3.copy the linked list into another linked list
4.exit
enter your choice
2
the linked list is below
10
20
30
**main menu**
1.create list
```


C:\Users\HP\OneDrive\Desktop\collage work 3rd sem\doubly linked list copy new.exe
ENG
IN
19:28
29-10-2022

```
4.exit
enter your choice
2
the linked list is below
10
20
30
**main menu**
1.create list
2.display the list
3.copy the linked list into another linked list
4.exit
enter your choice
3
list is copied
**main menu**
1.create list
2.display the list
3.copy the linked list into another linked list
4.exit
enter your choice
2
the linked list is below
10
20
30
**main menu**
1.create list
2.display the list
3.copy the linked list into another linked list
4.exit
enter your choice
4

--------------------------------
Process exited after 13.27 seconds with return value 0
Press any key to continue . . .
```