

```

1  ///////////////////////////////////MOST IMPORTANT PROGRAM////////////////////////////////////
2  ///////////////////////////////////Reverse the Linked list in Parts////////////////////////////////
3
4  #include<stdio.h>
5  #include<stdlib.h>
6
7  struct node
8  {
9      int data;
10     struct node *next;
11 }*head=NULL;
12
13 void createLL()
14 {
15
16     int n,i,item;
17     printf("/////////////////////////////////LINKED LIST/////////////////////////////////");
18     printf("\n Enter the No. of elements in List\n");
19     scanf("%d",&n);
20     struct node *q=head;
21
22     for(i=1;i<=n;i++)
23     {
24         struct node *p=(struct node *)malloc(sizeof(struct node));
25         printf("\n enter the element");
26         scanf("%d",&item);
27         p->data=item;
28
29         if(head==NULL)
30         {
31             p->next=NULL;
32             head=p;
33             q=p;
34         }
35         else
36         {
37             q->next=p;
38             p->next=NULL;
39             q=q->next;
40         }
41     }
42 }
43
44 int first=1;int i;
45 void ReverseLLinParts(struct node *Lhead, int k)
46 {
47     struct node *l=Lhead; struct node *t=Lhead;
48     for(i=1;i<k;i++)
49     {
50         t=t->next;
51         if(t==NULL)
52             return;
53     }
54
55     if(first==1)
56     {
57         head=t;
58         first=0;
59     }
60
61     struct node *p=Lhead;struct node *r=Lhead;struct node *q=NULL;
62
63     while(q!=t)
64     {
65         r=r->next;
66         p->next=q;

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67         q=p;
68         p=r;
69     }
70
71     if(p==NULL)
72     {
73         return;
74     }
75     else
76     {
77         for(i=1;i<k;i++)
78         {
79             p=p->next;
80             if(p==NULL)
81             {
82                 l->next=r;
83                 return;
84             }
85         }
86         if(p!=NULL)
87         {
88             l->next=p;
89             ReverseLLinParts(r,k);
90             return;
91         }
92     }
93
94
95 }
96
97 void display()
98 {
99     struct node *p=head;
100    while(p!=NULL)
101    {
102        printf("%d",p->data);
103        printf("---->");
104        p=p->next;
105    }
106 }
107
108 void main()
109 {
110     createLL();
111     display();
112     printf("\n\n");
113     ReverseLLinParts(head,3);
114     display();
115 }

```