

```

1  #include<stdio.h>
2  #include<stdlib.h>
3  typedef struct node
4  {
5      int data;
6      struct node *next;
7  }node;
8
9  void insert();
10 void reverse();
11 void disp();
12 struct node *start=NULL;
13

```

```

13
14 void main()
15 {
16     int ch;
17     while(1)
18     {
19         printf("\n---Options Are---");
20         printf("\n1-Insertion");
21         printf("\n2-Revers");
22         printf("\n3-Display");
23         printf("\n4-Exit");
24         printf("\nEnter your choice: ");
25         scanf("%d",&ch);
26         switch(ch)
27         {
28             case 1: insert();
29                     break;
30             case 2: reverse();
31                     break;
32             case 3: disp();
33                     break;
34             case 4: exit(0);
35             default: printf("\n Wrong Choice");
36         }
37     }
38 }
39

```

```

39
40 void insert()
41 {
42     node *ptr;
43     ptr = (node*)malloc(sizeof(node));
44     printf("\nEnter the value: ");
45     scanf("%d",&ptr->data);
46     ptr->next=NULL;
47     if(start==NULL)
48         start=ptr;
49     else
50     {
51         node *temp;
52         temp = start;
53         while(temp->next!=NULL)
54             temp = temp->next;
55         temp->next=ptr;
56     }
57 }
58

```

```

58
59 void reverse()
60 {
61     struct node *temp1,*temp2;
62     temp1=start;
63     start=start->next;
64     temp1->next=NULL;
65     temp2=start;
66     while(start!=NULL)
67     {
68
69         start=start->next;
70         temp2->next=temp1;
71         temp1=temp2;
72         temp2=start;
73     }
74     start=temp1;
75 }
76
80
81
82 void disp()
83 {
84     struct node *temp;
85     temp = start;
86     if(temp==NULL)
87         printf("\nList is empty");
88     else
89     {
90         printf("\nYou have entered following data");
91         while(temp)
92         {
93             printf(" %d ",temp->data);
94             temp=temp->next;
95         }
96     }
97 }

```