

```

1  #include<stdio.h>
2  #include<stdlib.h>
3  typedef struct node
4  {
5      int data;
6      int prty;
7      struct node *next;
8  }node;
9
10 void insert();
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-Display");
22         printf("\n3-Exit");
23         printf("\nEnter your choice: ");
24         scanf("%d",&ch);
25         switch(ch)
26         {
27             case 1: insert();
28                     break;
29             case 2: disp();
30                     break;
31             case 3: exit(0);
32             default: printf("\n Wrong Choice");
33         }
34     }
35 }
36

```

```

36
37 void insert()
38 {
39     node *ptr;
40     ptr = (node*)malloc(sizeof(node));
41     printf("\nEnter the value: ");
42     scanf("%d",&ptr->data);
43     printf("\nEnter the priority: ");
44     scanf("%d",&ptr->prty);
45     ptr->next=NULL;
46     if(start==NULL)
47         start=ptr;
48     else if(ptr->prty<start->prty)
49     {
50         ptr->next=start;
51         start=ptr;
52     }
53     else
54     {
55         node *temp;
56         temp=start;
57         while((temp->next!=NULL) && ((temp->next)->prty<ptr->prty) )
58             temp=temp->next;
59         ptr->next=temp->next;|
60         temp->next=ptr;
61     }
62 }
63

```

```

63
64 void disp()
65 {
66     node *temp;
67     temp = start;
68     if(temp==NULL)
69         printf("\nList is empty");
70     else
71     {
72         printf("\nYou have entered following data\n");
73         printf("Priority   Data\n");
74         while(temp!=NULL)
75         {
76             printf(" %d           %d ",temp->prty,temp->data);
77             temp=temp->next;
78             printf("\n");|
79         }
80     }
81 }
82

```