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1  #include<stdio.h>
2  #include<stdlib.h>
3  struct Node
4  {
5      int Info ;
6      struct Node *Link ;
7  } *ptr , *start , *save , *newN , *Loc ;
8  main()
9  {
10     int val = 0 , strtOk = 1 , Item ;
11
12     printf ( "Enter a value: " );
13     scanf ( "%d" , &val );
14
15     while ( val != 0 )
16     {
17         ptr = ( struct Node *) malloc ( sizeof ( struct Node ) );
18         if ( ptr != NULL )
19         {
20             if ( strtOk == 1 )
21             {
22                 start = ptr ;
23                 ptr -> Info = val ;
24                 ptr -> Link = NULL ;
25                 save = ptr ;
26                 strtOk = 0 ;
27             }
28             else
29             {
30                 ptr -> Info = val ;
31                 save -> Link = ptr ;
32                 ptr -> Link = NULL ;
33                 save = ptr ;
34             }
35             printf ( "Enter a value: " );
36             scanf ( "%d" , &val );
37         }
38         else
39             printf ( "Overflow !" );
40     }
41     ptr = start ;
42     while ( ptr != NULL )
43     {
44         printf ( " %d" , ptr -> Info );
45         ptr = ptr -> Link ;
46     }
47     printf ( "\nEnter Item value: " );
48     scanf ( "%d" , &Item );
49     printf ( "\nEnter Given node value: " );
50     scanf ( "%d" , &val );
51     newN = ( struct Node *) malloc ( sizeof ( struct Node ) );
52     if ( newN != NULL )
53     {
54         newN -> Info = Item ;
55         ptr = start ;
56         Loc = NULL ;
57         while ( ptr != NULL && Loc == NULL ) // searching given node
58         {
59             if ( val == ptr -> Info )
60                 Loc = ptr ;
61             else
62                 ptr = ptr -> Link ;
63         }
64         if ( Loc != NULL ) // Insert After a given node
65         {
66             newN -> Link = Loc -> Link ;
67             Loc -> Link = newN ;
68         }
69         else // Insert at first node
70         {
71             newN -> Info = Item ;
72             newN -> Link = start ;
73             start = newN ;
74         }
75     }
76     else
77         printf ( "Overflow !" );
78     printf ( "\nAfter Inserting an Item: \n" );
79     ptr = start ;
80     while ( ptr != NULL )
81     {
82         printf ( " %d" , ptr -> Info );
83         ptr = ptr -> Link ;
84     }

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85     return 0;
86 }
87
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