

Insertion Singly linked list: -

```
1  #include <stdio.h>
2  #include <stdlib.h>
3
4  struct Node {
5      int data;
6      struct Node *next;
7  };
8
9  void push(struct Node **head_ref, int new_data) {
10     struct Node *new_node=(struct Node*) malloc(sizeof(struct Node));
11     new_node->data=new_data;
12     new_node->next=(*head_ref);
13     (*head_ref)=new_node;
14 }
15
16 void insertAfter(struct Node *prev_node, int new_data) {
17     if(prev_node==NULL) {
18         printf("The given previous code cannot be NULL\n");
19         return;
20     }
21     struct Node *new_node=(struct Node*) malloc(sizeof(struct Node));
22     new_node->data=new_data;
23     new_node->next=prev_node->next;
24     prev_node->next=new_node;
25 }
26
27 void append(struct Node **head_ref, int new_data) {
28     struct Node *new_node=(struct Node*) malloc(sizeof(struct Node));
29     struct Node *last=*head_ref;
30     new_node->data=new_data;
31     new_node->next=NULL;
32     if(*head_ref==NULL) {
33         *head_ref=new_node;
34         return;
35     }
36     while(last->next!=NULL)
37         last=last->next;
38     last->next=new_node;
39     return;
40 }
```

```

38 void printList(struct Node *node) {
39     while(node!=NULL) {
40         printf("%d",node->data);
41         node=node->next;
42     }
43 }
44 int main()
45 {
46     struct Node *head=NULL;
47     append(&head, 6);
48     push(&head, 7);
49     push(&head, 1);
50     append(&head, 4);
51     insertAfter(head->next, 8);
52     printf("\n Created Linked List is: ");
53     printList(head);
54     return 0;
55 }
56

```

OUTPUT: -

```

Created Linked List is: 17864
Process returned 0 (0x0)   execution time : 0.007 s
Press any key to continue.

```