

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  void push(struct Node **head_ref, int new_data) {
9      struct Node *new_node=(struct Node*) malloc(sizeof(struct Node));
10     new_node->data=new_data;
11     new_node->next=(*head_ref);
12     (*head_ref)=new_node;
13 }
14 void insertAfter(struct Node *prev_node, int new_data) {
15     if(prev_node==NULL) {
16         printf("The given previous code cannot be NULL\n");
17         return;
18     }
19     struct Node *new_node=(struct Node*) malloc(sizeof(struct Node));
20     new_node->data=new_data;
21     new_node->next=prev_node->next;
22     prev_node->next=new_node;
23 }
24 void append(struct Node **head_ref, int new_data) {
25     struct Node *new_node=(struct Node*) malloc(sizeof(struct Node));
26     struct Node *last=*head_ref;
27     new_node->data=new_data;
28     new_node->next=NULL;
29     if(*head_ref==NULL) {
30         *head_ref=new_node;
31         return;
32     }
33     while(last->next!=NULL)
34         last=last->next;
35     last->next=new_node;
36     return;
37 }
```

```
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 }
```

OUTPUT:-

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