```c
#include<stdio.h>
#include<stdlib.h>
struct Node
{
 int data;
 struct Node *next;
}*top = NULL;
void push(int);
void pop();
void display();
void search();
void main()
{
 int choice, value;
 while(1)
 {
 printf("\n1.Push \n2.Pop \n3.Display \n4.
Search \n5.Exit\n");
 printf("Enter your choice: ");
 scanf("%d",&choice);
 switch(choice)
 {
 case 1: printf("Enter the element to be insert: "

 scanf("%d", &value);
 push(value);
 break;
 case 2: pop();
 break;
 case 3: display();
 break;
 case 4: search();
 break;
 case 5: exit(0);
 break;
```

```
34  default: printf("\nInvalid Choice\n");
35  }
36  }
37  }
38  void push(int value)
39  {
40  struct Node *newNode;
41  newNode = (struct Node*)malloc(sizeof(struct
    Node));
42  newNode->data = value;
43  if(top == NULL)
44  newNode->next = NULL;
45  else
46  newNode->next = top;
47  top = newNode;
48  printf("Insertion is Success\n");
49  }
50  void pop()
51  {
52  if(top == NULL)
53  printf("Stack is Empty.\n");
54  else
55  {
56  struct Node *temp = top;
57  printf("The deleted element : %d \n", temp-
    >data);
58  top = temp->next;
59  free(temp);
60  }
61  }
62  void display()
63  {
64  if(top == NULL)
65  printf("Stack is Empty.\n");
66  else
```

```
67  {
68  struct Node *temp = top;
69  while(temp->next != NULL)
70  {
71  printf("%d ",temp->data);
72  temp = temp -> next;
73  }
74  printf("%d NULL",temp->data);
75  }
76 }
77 void search()
78 {
79  struct Node *ptr;
80  int item,i=0,flag=0;
81  ptr = top;
82  if(ptr == NULL)
83  {
84  printf("Empty List\n");
85  }
86  else
87  {
88  printf("\nEnter item to be searched :");
89  scanf("%d",&item);
90  while (ptr!=NULL)
91  {
92  if(ptr->data == item)
93  {
94  printf("Item found at location %d ",i+1);
95  flag=1;
96  }
97  i++;
98  ptr = ptr -> next;
99  }
100 if(flag==0)
101 {
102 printf("Item not found\n");
```

```
101 {
102 printf("Item not found\n");
103  }
104 }
105 }
```

```
1.Push
2.Pop
3.Display
4.Search
5.Exit
Enter your choice: 2
Stack is Empty.

1.Push
2.Pop
3.Display
4.Search
5.Exit
Enter your choice: 3
Stack is Empty.

1.Push
2.Pop
3.Display
4.Search
5.Exit
Enter your choice: 1
Enter the element to be insert: 34
Insertion is Success

1.Push
2.Pop
3.Display
4.Search
5.Exit
Enter your choice: 4
Enter item to be searched :56
Item not found

1.Push
2.Pop
3.Display
4.Search
5.Exit
Enter your choice: 4
Enter item to be searched :34
Item found at location 1

1.Push
2.Pop
3.Display
4.Search
5.Exit
Enter your choice: 5
```