```
#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;
 default: printf(“\nInvalid Choice\n”);
 }
 }
}
void push(int value)
{
```

```
 struct Node *newNode;
 newNode = (struct Node*)malloc(sizeof(struct Node));
 newNode->data = value;
 if(top == NULL)
 newNode->next = NULL;
 else
 newNode->next = top;
 top = newNode;
 printf("Insertion is Success\n");
}
void pop()
{
 if(top == NULL)
 printf("Stack is Empty.\n");
 else
 {
 struct Node *temp = top;
 printf("The deleted element : %d \n", temp->data);
 top = temp->next;
 free(temp);
```

```
 }
 }
void display()
{
 if(top == NULL)
 print(“Stack is Empty.\n”);
 else
 {
 struct Node *temp = top;
 while(temp->next != NULL)
 {
 printf(“%d “,temp->data);
 temp = temp -> next;
 }
 }
 }
void search()
{
 struct Node *ptr;
 int item,i=0,flag=0;
```

```
ptr = top;
if(ptr == NULL)
{
printf(“Empty List\n”);
}
else
{
printf(“Enter item to be searched :”);
scanf(“%d”,&item);
while (ptr!=NULL)
{
if(ptr->data == item)
{
printf(“Item found at location %d \n “,i+1);
flag=1;
}
i++;
ptr = ptr -> next;
}
if(flag==0)
```

```
{
printf(“Item not found\n”);
 }
}
}
```

Output:-

```
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 :34
Item found at location 1

1.Push
2.Pop
3.Display
4.Search
5.Exit
Enter your choice: 2
The deleted element : 34

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: 5

[Program finished]
```