```
#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
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]
```