Program to Push, Pop and Linear Search in Singly Linked Stack :

```
#include<stdio.h>
#include<conio.h>
#include<stdlib.h>
struct node
{
  int data;
  struct node *next;
  }*top=NULL,*temp;
  typedef struct node NODE;
void push(int d)
{
  NODE *newnode;
  newnode=(NODE*)malloc(sizeof(NODE));
  if(!newnode)
  {
      printf("\nOVERFLOW");
      return;
    }
  newnode->data=d;
  newnode->next=top;
  top=newnode;
  }
void pop()
  {
    if(top==NULL)
    {
      printf("\n\nUNDERFLOW...!");
      return;
      }
    printf("%d Deleted... !",top->data);
    top=top->next;
    }
void search(int i)
{
  int c=0;
  if(top==NULL)
```

```
  {
    printf("\n\nStack is empty...!");
    return;
    }
    temp=top;
    c++;
    while(temp)
    {
     if(temp->data==i)
     {
           printf("\n\n%d found at node %d",i,c);
         return;
          }
     temp=temp->next;
     c++;
     }
     printf("\n\n%d not found...!",i);
  }
void display()
{
  if(top==NULL)
  {
    printf("\nStack is empty!");
    return;
    }
    else
    {
     temp=top;
     printf("\nTACK from top to bottom: \n");
     while(temp!=NULL)
     {
          printf("%d -> ",temp->data);
          temp=temp->next;
       }
     }
  }
void main()
  {
```

```
    int ch,data;
    do
    {
    printf("\nEnter choice to perform: ");
    printf("\n1.Push\n2.Pop\n3.Search\n4.Display\n5.Exit\nChoice:
");
    scanf("%d",&ch);
    switch(ch)
    {
      case 1:printf("\nEnter data: ");
                  scanf("%d",&data);
                  push(data);
                     break;
      case 2:pop();
                     break;
      case 3:printf("\nEnter search item: ");
                  scanf("%d",&data);
                  search(data);
                     break;
      case 4:display();
                     break;
      case 5:exit(0);
      default:printf("\nInvalid Choice");
      };} while(ch);
    }
```