

#include<stdio.h>  
#include<conio.h>

struct node{  
int data;  
struct node \*next;  
}\*top=NULL,\*temp;

void push(int value)  
{  
struct node \*newnode;  
newnode=(struct node\*)malloc(sizeof(struct node));  
newnode->data=value;  
if(top==NULL)  
{  
top=newnode;  
newnode->next=NULL;  
}  
else  
{  
newnode->next=top;  
top=newnode;  
}

\* 1:1



```
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S.C
[ ]
top=newnode;
}
}
void pop()
{
if(top==NULL)
printf("stack is empty");
else
temp=top;
printf("popped element is %d\n",temp->data);
top=temp->next;
free(temp);
}
int peek()
{
return top->data;
}

void search(int key,struct node *tmp)
{
int flag=0;
* 41:1
```



```
[■]
{
int flag=0;
while(tmp!=NULL)
{
if(tmp->data==key)
{
printf("element found\n");
flag=1;
break;
}

tmp=tmp->next;
}
if(flag==0)

printf("element not found\n");

}
```

```
void printStack(struct node *nodeptr)
```

```
{
```



```
[■]  
void printStack(struct node *nodeptr)  
{  
    if (nodeptr==NULL)  
    {  
        printf("stack is empty");  
    }  
    while (nodeptr!=NULL)  
    {  
        printf("%d", nodeptr->data);  
        nodeptr=nodeptr->next;  
        if (nodeptr !=NULL)  
            printf("-->");  
    }  
    printf("\n");  
}  
void main()  
{  
    int s;  
    clrscr();  
    push(1);  
    *
```



```
}  
printf("\n");  
}  
void main()  
{  
    int s;  
    clrscr();  
    push(1);  
    push(2);  
    push(3);  
    printf(" top of stack :%d\n",peek());  
    printf("Stack as linked list\n");  
    printStack(top);  
    printf("enter the element to search\n");  
    scanf("%d",&s);  
    search(s,top);  
    pop();  
    pop();  
    printf(" \ntop of stack :%d\n",peek());  
    printf("Stack as linked list\n");  
    printStack(top);
```



```
clrscr();
push(1);
push(2);
push(3);
printf(" top of stack :%d\n",peek());
printf("Stack as linked list\n");
printStack(top);
printf("enter the element to search\n");
scanf("%d",&s);
search(s,top);
pop();
pop();
printf(" \ntop of stack :%d\n",peek());
printf("Stack as linked list\n");
printStack(top);
getch();
}
```



top of stack :3

Stack as linked list

3-->2-->1

enter the element to search

2

element found

popped element is 3

popped element is 2

top of stack :1

Stack as linked list

1

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