

```
#include<stdio.h>
#include<malloc.h>
void push();
void pop();
void display();
void exit();
struct node
{
    int data;
    struct node *next;
}*top=NULL;
int main()
{
    int choice;
    printf("\nSTACK OPERATIONS USING LINKED LIST");
    printf("\n-----");
    printf("\n 1.PUSH\n 2.POP\n 3.DISPLAY\n 4.EXIT");
    while(1)
    {
        printf("\nEnter the Choice:");
```

```
scanf("%d",&choice);
```

```
switch(choice)
```

```
{
```

```
    case 1:
```

```
    {
```

```
        push();
```

```
        break;
```

```
    }
```

```
    case 2:
```

```
    {
```

```
        pop();
```

```
        break;
```

```
    }
```

```
    case 3:
```

```
    {
```

```
        display();
```

```
        break;
```

```
    }
```

```
    case 4:
```

```
    {
```

```

        exit(1);
    }
    default:
    {
        printf ("\nPlease Enter a Valid
Choice(1/2/3/4)");
    }

}

}

}

void push()
{
    struct node *p;
    int pushedelement;
    p=(struct node *)malloc(sizeof(struct node));
    printf(" Enter a value to be pushed in stack:");
    scanf("%d",&pushedelement);
    p->data=pushedelement;
    p->next=top;

```

```
    top=p;
}
void pop()
{
    struct node *p;
    if(top==NULL)
        printf("Stack is empty");
    else
    {
        p=top;
        printf("Popped element is %d",p->data);
        top=top->next;
        free(p);
    }
}
void display()
{
    struct node *q;
    q=top;
    if(top==NULL)
```

```
    printf("Stack is empty");  
else  
{  
    printf("Stack element is\n");  
    while(q!=NULL)  
    {  
        printf("%d\n",q->data);  
        q=q->next;  
    }  
}  
}
```