

STACK USING LINKED LIST:

```
#include<stdio.h>

#include<stdlib.h>

struct node{
    int d;
    struct node *next;
};

struct node *head=NULL;

void push(int data){
    struct node *p=(struct node*) malloc(sizeof(struct node));
    if (p==NULL) {
        printf("Stack Overflow.\n");
        return;
    }
    p->d=data;
    p->next=head;
    head=p;
    printf("Element is pushed.\n");
}

void pop(){
    struct node *p=head;
    if (p==NULL) {
        printf("Stack Overflow.\n");
        return;
    }
    head=p->next;
    free(p);
}
```

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        printf("Element is popped.\n");
    }
void display(){
    if (head==NULL){
        printf("Stack is empty\n");
        return;
    }
    printf("STACK\n");
    struct node *p=head;
    while (p!=NULL) {
        printf("%d\n",p->d);
        p=p->next;
    }
}
int main(){
    int choice,val;
    while(1){
        printf("STACK OPERATION:-\n");
        printf("1.PUSH\n");
        printf("2.POP\n");
        printf("3.DISPLAY\n");
        printf("4.EXIT\n");
        printf("enter the choice:");
        scanf("%d",&choice);
        switch(choice){
            case 1:
                printf("Enter the value to push in the stack:");

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        scanf("%d",&val);
        push(val);
        break;
    case 2:
        pop();
        break;
    case 3:
        display();
        break;
    case 4:
        printf("Exit\n");

        exit(0);
    default:
        printf("Invalid choice.\n");
    }
}
return 0;
}
```

OUTPUT:

```
STACK OPERATION:-
1.PUSH
2.POP
3.DISPLAY
4.EXIT
enter the choice:1
Enter the value to push in the stack:1
Element is pushed.
STACK OPERATION:-
1.PUSH
2.POP
3.DISPLAY
4.EXIT
enter the choice:2
Element is popped.
STACK OPERATION:-
1.PUSH
2.POP
3.DISPLAY
4.EXIT
enter the choice:3
Stack is empty
STACK OPERATION:-
1.PUSH
2.POP
3.DISPLAY
4.EXIT
enter the choice:1
Enter the value to push in the stack:2
Element is pushed.
STACK OPERATION:-
1.PUSH
2.POP
3.DISPLAY
4.EXIT
enter the choice:1
Enter the value to push in the stack:4
Element is pushed.
STACK OPERATION:-
1.PUSH
2.POP
```