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#include<stdlib.h>
#include<stdio.h>

typedef struct stack {
    int data;
    struct stack * ptr;
}stack;

stack * head = NULL;

stack * createnode() {
    stack * newnode = (stack *)malloc(sizeof(stack));
    printf("Enter the data element to be pushed : ");
    scanf("%d" , &newnode->data );
    newnode->ptr = NULL;
    return newnode;
}

void push() {
    if (head == NULL)
        head = createnode();
    else {
        stack * newnode = createnode();
        newnode->ptr = head;
        head = newnode;
    }
    printf("%d successfully pushed on to the stack.\n" , head-
>data);
}

void pop() {
    if (head == NULL)
        printf("Stack is Empty.\n");
    else {
        printf("Element %d successfully deleted.\n" , head-
>data);
        head = head->ptr;
    }
}

void display() {
    if (head != NULL) {
        stack * strt = head;
        printf("Elements of stack are : ");
        while(strt != NULL) {
            printf("%d ", strt->data );
            strt = strt->ptr;
        }
        printf("\n");
    }
    else
        printf("Stack is empty.\n");
}

void main() {
    int choice , flag = 1 ;

```

```

printf("Stack using Singly Linked List.\n");
printf("Enter the operation to be performed.\n");
while(flag) {
    printf("1.Push \t 2.Pop \t 3.Display \t 4.Exit : ");
    scanf("%d" , &choice);
    switch(choice) {
        case 1 : push();
                break;

        case 2 : pop();
                break;

        case 3 : display();
                break;

        case 4 : flag = 0 ;
                break;

        default : printf("Invalid input.\n");
                break;
    }
}
}

```