

```

#include <stdio.h>
#define n 5
int stac[n];
int top=-1;

void push(){
    if( top>=n){
        printf("stack is full, overflow\n");
        return;
    }
    top++;
    int item;
    printf("enter the number to be inserted\t");
    scanf("%d",&item);
    stac[top]=item;
}

void pop(){
    if( top== -1){
        printf("stack is empty, underflow\n");
        return;
    }
    int data=stac[top];
    printf("removing the %d element\t",top);
    printf("removing %d\n",data);
    top--;
}

void display(){
    int i;
    printf("the given stac is :\n");
    for(i=top;i>=0;i--){
        printf("%d\t",stac[i]);
    }
}

int main()
{
    int c;
    while(1){
        printf("enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting\n");
        printf("enter your choice\t");
        scanf("%d",&c);
        if(c==1){
            push();
        }
        else if(c==2){
            pop();
        }
        else if(c==3){
            display();
        }
        else{
            exit(0);
        }
    }
    return 0;
}

```

```

enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice      1
enter the number to be inserted 5
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice      1
enter the number to be inserted 6
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice      1
enter the number to be inserted 7
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice      1
enter the number to be inserted 8
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice      1
enter the number to be inserted 9
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice      3
the given stack is :
9      8      7      6      5      enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice      2
removing the 4 element removing 9
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice      2
removing the 3 element removing 8
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice      2
removing the 2 element removing 7
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice      2
removing the 1 element removing 6
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice      2
removing the 0 element removing 5
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice      2
stack is empty, underflow
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice      2
stack is empty, underflow

```