```
#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 99
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 89
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 79
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 69
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 59
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 49
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice       1
stack is full, overflow
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice       3
the given stac is :
49      59      69      79      89      99      enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
```

```
enter your choice       2
removing the 5 element  removing 49
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 59
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 69
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 79
enter 1 for push, 2 for pop and 3 for displaying the stack and 4 for exiting
enter your choice       3
the given stac is :
89      99      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 89
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 99
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       3
the given stac is :
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       4


...Program finished with exit code 0
Press ENTER to exit console.
```