```c
#include<stdio.h>
#include<stdlib.h>
# define size 5
int top=-1;
void push(int stack[],int item)
{
    if(top==size-1)
    printf("STACK OVERFLOW \n");
    else
    {
        top++;
        stack[top]=item;
    }
}
int pop(int stack[])
{
    if(top==-1){
    printf("STACK UNDERFLOW\n");
    return -1;

    }
    else
    {
        int item=stack[top];
        top--;
        return item;
    }
}
void display(int stack[])
{

    printf("contents of the stack \n");
    for(int i=top;i>=0;i--)
    printf("%d\n",stack[i]);
}
int main()
{
    int stack[size];
    int choice,element;
    for(;;)
    {
        printf("\n1.push\n2.pop\n3.print\n4.exit\n");
        printf("enter your choice\n");
        scanf("%d",&choice);
        switch(choice){
            case 1:
            printf("enter element\n");
            scanf("%d",&element);
            push(stack,element);
            break;
            case 2:
            element=pop(stack);
            if(element==-1)
            printf("STACK UNDERFLOW\n");
            else
            printf("element popped :%d",element);
            break;
            case 3:
            display(stack);
            break;
            default :
            printf("end of operation\n");
            exit(0);

        }
    }
}
```

```
1.push
2.pop
3.print
4.exit
enter your choice
1
enter element
1

1.push
2.pop
3.print
4.exit
enter your choice
1
enter element
2

1.push
2.pop
3.print
4.exit
enter your choice
1
enter element
3

1.push
```

```
1.push
2.pop
3.print
4.exit
enter your choice
1
enter element
5

1.push
2.pop
3.print
4.exit
enter your choice
3
contents of the stack
5
4
3
2
1

1.push
2.pop
3.print
4.exit
enter your choice
2
element popped :5
```

```
4.exit
enter your choice
2
element popped :5
1.push
2.pop
3.print
4.exit
enter your choice
2
element popped :4
1.push
2.pop
3.print
4.exit
enter your choice
2
element popped :3
1.push
2.pop
3.print
4.exit
enter your choice
3
contents of the stack
2
1

1.push
```

```
contents of the stack
2
1

1.push
2.pop
3.print
4.exit
enter your choice
4
end of operation


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