

Create a custom exception class named StackException. The Push() and Pop() method should throw object of StackException when the stack is full or empty respectively.

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace exception
{
    internal class Stack
    {
        private int[] ele;
        private int top;
        private int max;
        public Stack(int size)
        {
            ele = new int[size];
            top = -1;
            max = size;
        }
        public void Push(int item)
        {
            if(top == max - 1)
            {
                throw new Exception("Stack overflow not perform push");
            }
            else
            {
                ele[++top] = item;
            }
        }
        public int Pop()
        {
            if(top == -1)
            {
                throw new Exception("stack is empty");
            }
            else
            {
                Console.WriteLine("pop element is:" + ele[top]);
                return ele[top--];
            }
        }
        public void printStack()
        {

```

```

        if(top== -1)
        {
            Console.WriteLine("stack is empty");
            return;
        }
        else
        {
            for(int i=0;i<=top;i++)
            {
                Console.WriteLine("Item[" + (i + 1) + "]:"+ele);


            }
        }
    }
}
}
class Program
{
    public static void Main()
    {
        Stack S = new Stack(5);
        S.Push(10);
        S.Push(20);
        S.Push(30);
        S.Push(40);
        S.Push(50);
        //S.Push(60);

        Console.WriteLine("item are:");
        S.printStack();
        S.Pop();
        S.Pop();
        S.Pop();
        S.Pop();
        S.Pop();
        Console.ReadKey();

    }
}
}

```

Output:

 C:\Users\neha\Source\Repos\stackexpectation\stackexpectation\bin\Debug\netcoreapp3.1\stackexpectation.exe

```

pop element is:50
pop element is:40
pop element is:30
pop element is:20
pop element is:10

```

