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using System;
using System.Collections;
using System.Collections.Generic;

namespace Doi_So_Nhi_Phan_export_stack
{
    public class Stack
    {
        public int[] data = new int[20];
        public int top;
    }
    class Program
    {
        public static Boolean IsFull(Stack S)
        {
            if (S.top == S.data.Length - 1)
            {
                return true;
            }
            else
            {
                return false;
            }
        }

        public static Boolean IsEmpty(Stack S)
        {
            if (S.top == -1)
            {
                return true;
            }
            else
            {
                return false;
            }
        }

        public static void Push(Stack S, int x)
        {
            if (IsFull(S) == false)
            {
                S.top++;
                S.data[S.top] = x;
            }
            else
            {
                Console.WriteLine("Full");
            }
        }

        public static void Pop(Stack S)
        {
            if (IsEmpty(S) == false)
            {
                S.top--;
            }
            else
            {
                Console.WriteLine("empty");
            }
        }
    }
}

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    }
}
public static void Peek(Stack S)
{
    if (IsEmpty(S) == false)
    {
        Console.WriteLine("Top Element: " + S.data[S.top]);
    }
    else
    {
        Console.WriteLine("Stack Underflow");
    }
}
public static void NumberElement(Stack S)
{
    string str = " ";
    for (int i = S.top; i >= 0; i--)
    {
        str += S.data[i] + " ";
    }
    Console.WriteLine("Element: " + str);
}

static void Main(string[] args)
{
    Stack S = new Stack();
    int n;
    int r;
    Console.WriteLine("Nhap so can chuyen: ");
    n = Convert.ToInt32(Console.ReadLine());
    while (n > 0)
    {
        r = (n % 2);
        Push(S, r);
        n = (n / 2);
    }
    Console.WriteLine("Nhi phan sau khi doi: ");
    NumberElement(S);
    Peek(S);
}
}
}

```