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152011513020/D3-Sistem Informasi

-----Main-----

```
package tugas3_152011513020;

import java.util.Scanner;

public class Tugas3_152011513020 {
    public static void main(String[] args) {
        Scanner input = new Scanner(System.in);

        System.out.println("-------------------------------------------------");
        System.out.println("Praktikum 3");
        System.out.println("-------------------------------------------------");
        Stack a;

        a = new Stack (5);

        System.out.println("-------------------------------------------------");
        System.out.println("Nomor 1 Is Empty");
        System.out.println("-------------------------------------------------");

        System.out.println("Stack kosong? " + a.isEmpty());

        System.out.print("\n");
        System.out.println("-------------------------------------------------");
        System.out.println("Nomor 2 Is Full");
        System.out.println("-------------------------------------------------");

        System.out.println("Stack penuh? " + a.isFull());

        System.out.print("\n");
        System.out.println("-------------------------------------------------");
        System.out.println("Nomor 3 Push");
        System.out.println("-------------------------------------------------");

        // Static
//        a.push(92);
//        a.push(23);
//        a.push(46);
//        a.push(51);
//        a.push(64);
////        a.push(53);
//
//        a.printStack();


        // Dinamis
        System.out.print("Masukan max   = ");
        int n = input.nextInt();
        a = new Stack (n);

        for (int i=0; i<n; i++){
```

```
            System.out.print("Input Stack [" + i + "] = ");
            int x = input.nextInt();
            a.push(x);
        }

        a.display();

        System.out.print("\n");
        System.out.println("-------------------------------------------------");
        System.out.println("Nomor 4 Pop");
        System.out.println("-------------------------------------------------");
        System.out.println("Data temp = " + a.pop());
    }
}
```

-----Class-----

```
package tugas3_152011513020;

public class Stack {
    int[] data;
    int top;
    int maxSize;

    Stack(int max){
        this.maxSize    = max;
        this.data       = new int[maxSize];
        this.top        = -1;
    }

    // Nomor 1
    public boolean isEmpty(){
        if (top == -1){
            return true;
        }
        else return false;
    }

    // Nomor 2
    public boolean isFull(){
        if (top == maxSize-1){
            return true;
        }
        else return false;
    }

    // Nomor 3
    public void push(int element){
        if (isFull() == false){
            top ++;
            data[top] = element;
        }
    }

    // Nomor 4
```

```
    public int pop(){
        if (isEmpty() == false){
            int temp = data[top];
            top --;
            return temp;
        }
        else return 0;
    }

    public void display(){
        for (int i=0; i<maxSize; i++) {
            System.out.print(" " + data[i] + " ");
        }
        System.out.print("\n\n");
    }
}
```