

TUGAS PERORANGAN/INDIVIDU

**LAPORAN PRAKTIKUM
JOBSHEET 6 (SORT)**

**Disusun sebagai
MATA KULIAH : STRUKTUR DATA**

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**PROGRAM STUDI DIII-MANAJEMEN INFORMASI
JURUSAN TEKNOLOGI INFORMASI
POLITEKNIK NEGERI MALANG
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7.5 Tugas

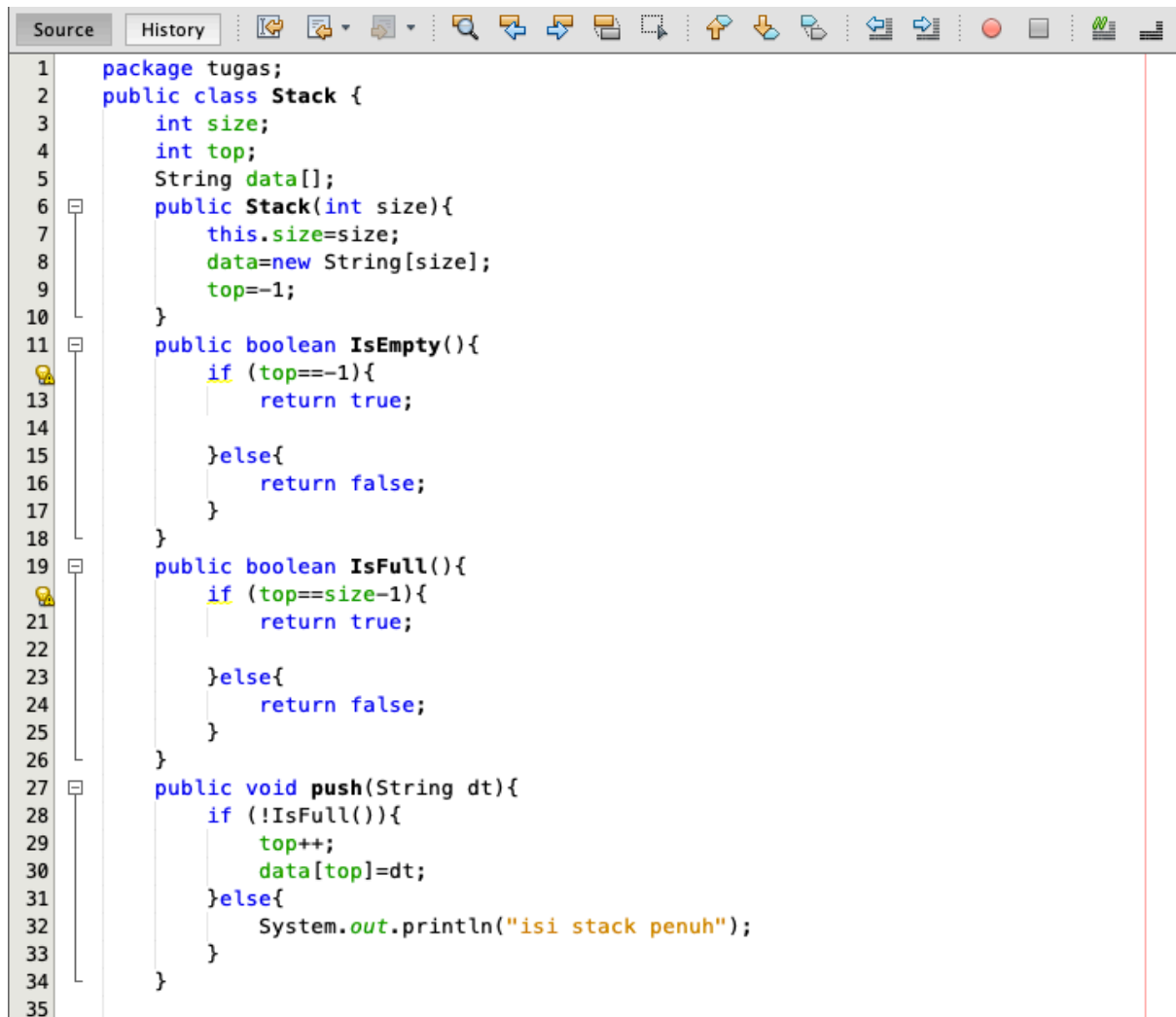
1. Modifikasi program pada Praktikum 1 dengan mengganti data berupa angka menjadi data berupa teks (kalimat)!

TUGAS1

StackMain.java

```
package tugas;
import java.util.Scanner;
public class StackMain {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("berapa kapasitas stak yang di inginkan =");
        int t=sc.nextInt();
        Stack tumpukan =new Stack(t);
        for (int i = 0; i < t; i++) {
            System.out.println("Data ke-"+(i+1)+":");
            String Stack=sc.next();
            tumpukan.push(Stack);
        }
        tumpukan.print();
        tumpukan.peek();
        tumpukan.pop();
        tumpukan.print();
        tumpukan.peek();
    }
}
```

Stack.java



```
1 package tugas;
2 public class Stack {
3     int size;
4     int top;
5     String data[];
6     public Stack(int size){
7         this.size=size;
8         data=new String[size];
9         top=-1;
10    }
11    public boolean isEmpty(){
12        if (top== -1){
13            return true;
14        }else{
15            return false;
16        }
17    }
18    public boolean IsFull(){
19        if (top==size-1){
20            return true;
21        }else{
22            return false;
23        }
24    }
25    public void push(String dt){
26        if (!IsFull()){
27            top++;
28            data[top]=dt;
29        }else{
30            System.out.println("isi stack penuh");
31        }
32    }
33 }
34
35
```

```

36
37 public void pop(){
38     if (!IsEmpty()) {
39         String x=data[top];
40         top--;
41         System.out.println("data yang keluar:"+x);
42     }else{
43         System.out.println("Stack masih kosong");
44     }
45 }
46 public void peek(){
47     System.out.println("Elemen teratas:"+data[top]);
48
49 }
50 public void print(){
51     System.out.println("Isi stack:");
52     for(int i =top;i>0;i--){
53         System.out.println(data[i]+" ");
54     }
55     System.out.println(" ");
56 }
57 public void clear(){
58     if (!IsEmpty()) {
59         for(int i=top;i>0;i--){
60             top--;
61         }
62         System.out.println("Stack sudah di kosongkan");
63     }else{
64         System.out.println("gagal Stack masih kosong");
65     }
66 }
67
68 }
69

```

2. Buat program dengan menggunakan konsep Stack untuk memasukkan sebuah kalimat, kemudian keluaran yang ditampilkan berupa kalimat terbalik!

TUGAS2

StackTugas2Main.java

```

    /*
     * To change this license header, choose License Headers in Project Properties.
     * To change this template file, choose Tools | Templates
     * and open the template in the editor.
     */
    package tugas;

    /**
     *
     * @author user
     */
    import java.util.Scanner;
    public class StackTugas2Main {
        public static void main(String[] args) {
            Scanner sc = new Scanner(System.in);

            StackTugas2 tumpukan = new StackTugas2(2);
            System.out.println("Masukkan kalimat : ");

            for (int i = 0; i < 2; i++) {
                String stack = sc.next();
                tumpukan.push(stack);
            }
            tumpukan.print();
        }
    }
}
```

StackTugas2.java

```

    /**
     * To change this license header, choose License Headers in Project Properties.
     * To change this template file, choose Tools | Templates
     * and open the template in the editor.
     */
    package tugas;

    /**
     *
     * @author user
     */
    public class StackTugas2 {
        int size;
        int top;
        String data[];

        public StackTugas2(int size) {
            this.size = size;
            data = new String[size];
            top = -1;
        }

        public void push(String dt) {
            top++;
            data[top] = dt;
        }

        public void print() {
            System.out.print("Kalimat dibalik : ");
            for (int i = top; i >= 0; i--) {
                System.out.print(data[i] + " ");
            }
            System.out.println();
        }
    }
}
```