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Laporan Activity 3.2

Method yang sudah dikerjakan:

- getRandomNumber
- getAbsoluteValue
- getFactorial
- getWeatherForecast
- getRandomMessage
- isEvenNumber

Method sisanya dan beberapa penyempurnaan dikumpukan pada Homework 2

Homework 3

Homework 3.1

TestMethod.java

```
public class TestMethod {
    public static double getSum(double[] array) {
        double sum = 0;
        for (int i=0; i<array.length; i++) {
            sum += array[i];
        }
        return sum;
    }
    public static double getAverage(double[] array) {
        return getSum(array)/array.length;
    }
    public static int getValueOfLastElement(int[] array) {
        return array[array.length-1];
    }
    public static int getMinValue(int[] array) {
        int minValue = array[0];
        for (int i=0; i<array.length; i++) {
            if (array[i] < minValue) {
                minValue = array[i];
            }
        }
        return minValue;
    }
    public static int getMaxValue(int[] array) {
```

```
        int maxValue = array[0];
        for (int i=0; i<array.length; i++) {
            if (array[i] > maxValue) {
                maxValue = array[i];
            }
        }
        return maxValue;
    }
    public static int[] getMInMaxValue(int[] array) {
        int[] minMaxValue = {getMinValue(array), getMaxValue(array)};
        return minMaxValue;
    }
    public static String getLongestString(String[] array) {
        String longestString = array[0];
        int[] l = new int[array.length];
        for (int i = 0; i < array.length; i++) {
            l[i] = array[i].length();
        }
        for (int i=0; i<array.length; i++) {
            if (array[i].length() == getMaxValue(l)) {
                longestString = array[i];
            }
        }
        return longestString;
    }
    public static int[] getInversedArray(int[] array){
        int[] inversedArray = new int[array.length];
        int j = array.length;
        for (int i = 0; i < inversedArray.length; i++) {
            inversedArray[i] = array[j -1];
            j--;
        }
        return inversedArray;
    }

    public static void main(String[] args) {
        int[] myInt = {-3, 4, 54, 92, 42};
        double[] myDouble = {1.82, 82.23, 7.25, 42.899, 6.79};
        String[] myBuah = {"semangka" , "mengkudu", "apel", "jeruk"};

        // confirm method getSum
        System.out.println(getSum(myDouble));

        // confirm method getAverage
        System.out.println(getAverage(myDouble));
```

```java
        // confirm method getValueOfLastElement
        System.out.println(getValueOfLastElement(myInt));

        // confirm method getMinValue
        System.out.println(getMinValue(myInt));

        // confirm method getMaxValue
        System.out.println(getMaxValue(myInt));

        // confirm method getMinMaxValue
        int[] minMax =  getMInMaxValue(myInt);
        for (int i = 0; i < minMax.length; i++) {
            System.out.print(minMax[i] + " ");
        }
        System.out.println();

        // confirm method getLongestString
        System.out.println(getLongestString(myBuah));

        // confirm method getInversedArray
        int[] inversed =  getInversedArray(myInt);
        for (int i = 0; i < inversed.length; i++) {
            System.out.print(inversed[i] + " ");
        }

    }
}
```

Hasil :

```
PS D:\Kuliah\Semester 2\Praktikum ASD\homework\homework3> javac *.java
PS D:\Kuliah\Semester 2\Praktikum ASD\homework\homework3> java TestMethod
140.989
28.1978
42
-3
92
-3 92
mengkudu
42 92 54 4 -3
PS D:\Kuliah\Semester 2\Praktikum ASD\homework\homework3>
```

Homework 3.2

Student.java

```
public class Student {
    String name;
    int age;
}
```

Rectangle.java

```
public class Rectangle {
    double width;
    double height;
}
```

NewTestMethod.java

```
public class NewTestMethod {
    public static void printStudentInfo (Student s){
        System.out.println("Nama: " + s.name);
        System.out.println("Umur: " + s.age);
    }
    public static boolean isSameAge(Student s0, Student s1) {
        if (s0.age == s1.age){
            return true;
        }
        else{
            return false;
        }
    }
    public static Student getYoungestStudent(Student[] students) {
        Student youngestStudent = new Student();
        youngestStudent = students[0];
        for (int i = 0; i < students.length; i++) {
            if (students[i].age < youngestStudent.age) {
                youngestStudent = students[i];
            }
        }
        return youngestStudent;
    }
    public static double getRectangleArea(Rectangle r) {
        return r.width * r.height;
    }
    public static Rectangle getSquare(double d) {
```

```
        Rectangle side = new Rectangle();
        side.width = d;
        side.height = d;
        return side;
    }

    public static void main(String[] args) {
        // confirm method printStudentInfo
        Student siswa = new Student();
        siswa.name = "Afif Taufiqi";
        siswa.age = 18;
        printStudentInfo(siswa);
        System.out.println();

        // confirm method isSameAge
        Student murid0 = new Student();
        murid0.name = "Aisyah Putri";
        murid0.age = 18;
        Student murid1 = new Student();
        murid1.name = "Dhanada Santika";
        murid1.age = 17;
        System.out.println(isSameAge(murid0, murid1));
        System.out.println();

        // confirm method getYoungestStudent
        Student[] murid = new Student[3];
        murid[0]= new Student();
        murid[0].name = "Andree";
        murid[0].age = 18;
        murid[1]= new Student();
        murid[1].name = "Ijamm";
        murid[1].age = 19;
        murid[2]= new Student();
        murid[2].name = "Apiss";
        murid[2].age = 17;
        Student termuda = getYoungestStudent(murid);
        System.out.println("Murid Termuda");
        System.out.println("Nama: " + termuda.name);
        System.out.println("Umur: " + termuda.age);
        System.out.println();

        // confirm method getRectangleArea
        Rectangle kotak = new Rectangle();
        kotak.width = 125.75;
        kotak.height = 4.8;
```

```
        System.out.println("Luas persegi panjang: " + getRectangleArea(kotak));
        System.out.println();

        // confirm method getSqare
        Rectangle persegi = new Rectangle();
        persegi = getSquare(7.25);
        System.out.println("Panjang persegi: " + persegi.width);
        System.out.println("Lebar persegi: " + persegi.height);
    }
}
```

Hasil:

```
PS D:\Kuliah\Semester 2\Praktikum ASD\homework\homework3> java NewTestMethod
Nama: Afif Taufiqi
Umur: 18

false

Murid Termuda
Nama: Apiss
Umur: 17

Luas persegi panjang: 603.6

Panjang persegi: 7.25
Lebar persegi: 7.25
PS D:\Kuliah\Semester 2\Praktikum ASD\homework\homework3>
```