

Tugas Kelas dan Objek II

Praktikum Pemrograman 1

Nama : Fawwas Nawwaf Sabil

NRP : 223040114

Kelas : B

Link repo Github : https://github.com/FawwasSabil25/PBO_223040114.git

Sebelum memulai Latihan, kita harus membuat setter dan getter untuk fungsi lingkaran :

```
1 public class Lingkaran {
2     private int Jari2;
3
4     public Lingkaran(int Jari2){
5         this.Jari2 = Jari2;
6     }
7
8     public int getJari2() {
9         return Jari2;
10    }
11
12    public void setJari2(int Jari2) {
13        this.Jari2 = Jari2;
14    }
15 }
16
```

Latihan 1

```
1 public class Latihan1 {
2     Run | Debug
3     public static void main(String[] args) {
4
5         Lingkaran l1 = new Lingkaran(Jari2:5);
6         Lingkaran l2 = l1;
7
8         System.out.println(l1.getJari2());
9         System.out.println(l2.getJari2());
10
11        l2.setJari2(Jari2:10);
12        /*
13         * l2 = l1 sama saja dengan l1 = l2
14         * sehingga ketika l2 di isi dengan 10
15         * l1 jg terikat mengoverwrite menjadi 10
16         */
17        System.out.println(l1.getJari2());
18        System.out.println(l2.getJari2());
19
20    }
21 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Run: Latihan1 + v

```
at.java\jdt_ws\src_3d3a15c1\bin' 'Latihan1'
5
5
10
10
PS C:\Users\ASUS\Documents\Kulayah\Semester 4\PBO (vsCode)\src>
```

Latihan 2

```
1 public class Latihan2 {
2     Run | Debug
3     public static void main(String[] args) {
4
5         Lingkaran l1 = new Lingkaran(Jari2:5);
6         Lingkaran l2 = l1;
7         Lingkaran l3 = new Lingkaran(Jari2:7);
8
9         System.out.println(l1.getJari2());
10        System.out.println(l2.getJari2());
11        System.out.println(l3.getJari2());
12
13        l2 = l3; //l2 tidak lagi merefrensi ke l1 tapi di overwrite menjadi l3
14
15        System.out.println(l1.getJari2());
16        System.out.println(l2.getJari2());
17        System.out.println(l3.getJari2());
18    }
19 }
```

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS

Run: Latihan2 + v

5
7
5
7
7

PS C:\Users\ASUS\Documents\Kulyeah\Semester 4\PB0 (vsCode)\src>

Latihan 3

```
1 public class Latihan3 {
2     Run | Debug
3     public static void main(String[] args) {
4
5         Lingkaran l1 = new Lingkaran(Jari2:5);
6         Lingkaran l2 = l1;
7         Lingkaran l3 = new Lingkaran(Jari2:7);
8
9         System.out.println(l1.getJari2());
10        System.out.println(l2.getJari2());
11        System.out.println(l3.getJari2());
12
13        l2 = null; //l2 tidak lagi mereprentasi ke l1
14
15        System.out.println(l1.getJari2());
16        System.out.println(l2.getJari2());
17        //error Cannot invoke "Lingkaran.getJari2()" because "l2" is null
18        //l2 tidak dapat di print karena nilainya null
19        System.out.println(l3.getJari2());
20    }
21 }
22 |
```

```
PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS Run: Latihan2 + v
5
7
5
7
7
PS C:\Users\ASUS\Documents\Kulyeah\Semester 4\PB0 (vsCode)\src>
Ready Reconnect to Discord Ln 22, Col 1 Spaces: 4 UTF-8 CRLF {} Java
```

Latihan 4

```
1 public class Latihan4 {
2     public static void main(String[] args) {
3
4         Lingkaran l1 = new Lingkaran(Jari2:5);
5         Lingkaran l2 = l1;
6         Lingkaran l3 = new Lingkaran(Jari2:7);
7
8         System.out.println(l1.getJari2());
9         System.out.println(l2.getJari2());
10        System.out.println(l3.getJari2());
11
12        l2 = null;
13
14        System.out.println(l1.getJari2());
15        if(l2 != null){
16            System.out.println(l2.getJari2());
17        }
18        /*
19         * mengatasi error sebelumnya, perlu di check apakah
20         * l2 null, jika tidak maka print l2
21         */
22        System.out.println(l3.getJari2());
23    }
24 }
```

```
PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS
ws\src_3d3a15c1\bin' 'Latihan4'
5
5
7
5
7
```

Latihan 5

```
1 public class Latihan5 {
2     public static void main(String[] args) {
3         Lingkaran l1 = new Lingkaran(Jari2:5);
4         Lingkaran l2 = l1;
5         Lingkaran l3 = new Lingkaran(Jari2:7);
6
7         System.out.println(l1.getJari2());
8         System.out.println(l2.getJari2());
9         System.out.println(l3.getJari2());
10
11        l1 = null;
12        l2 = null;
13        l3 = null;
14
15        /*
16         * l1, l2 dan l3 sudah tidak mereferensi lagi ke objek
17         * lingkaran dan objek lingkaran akan dihapus oleh Garbage Collection
18         */
19    }
20 }
```

```
PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS

-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\ASUS\AppData\Roaming\Code\User\workspaceStorage\7
16dbccc1d7721cc334ef7e500\redhat.java\jdt_ws\src_3d3a15c1\bin' 'Latihan5'
5
5
7
PS C:\Users\ASUS\Documents\Kulyeah\Semester 4\PBO (vsCode)\src>
```

Latihan 6 (Latihan student) perlu setter & getter utk Student

```
1 public class Latihan6 {
2     Run | Debug
3     public static void main(String[] args) {
4         Student x = new Student(Nrp:0);
5         Student y = x;
6
7         x.setNrp(Nrp:01);
8         y.setNrp(Nrp:02);
9
10        System.out.println(x.getNrp()); //di print pertama (2)
11        Student z = new Student(Nrp:0);
12
13        z.setNrp(Nrp:03);
14        x = z; // karena z=3 maka x = 3
15
16        System.out.println(x.getNrp()); //sehingga x disini itu 3
17        System.out.println(y.getNrp()); //sedangkan y masih 2 krna terikat dengan x yg lama
18    }
19 }

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS

PS C:\Users\ASUS\Documents\Kulyeah\Semester 4\PBO (vsCode)\src> & 'C:\Program Files\Java\jdk-19\bin\jav
-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\ASUS\AppData\Roaming\Code\User\workspaceStorage
16dbccc1d7721cc334ef7e500\redhat.java\jdt_ws\src_3d3a15c1\bin' 'Latihan6'
2
3
2
PS C:\Users\ASUS\Documents\Kulyeah\Semester 4\PBO (vsCode)\src>

ready Reconnect to Discord Ln 19, Col 1 Spaces: 4 UTF-8 CRLF
```

Student.java

```
1 public class Student {
2     private int Nrp;
3
4     public Student(int Nrp){
5         this.Nrp = Nrp;
6     }
7
8     public int getNrp() {
9         return Nrp;
10    }
11
12    public void setNrp(int Nrp) {
13        this.Nrp = Nrp;
14    }
15 }
16
```

Latihan 7

```
1 public class Latihan7 {
    Run | Debug
2     public static void main(String[] args) {
3         Lingkaran l1 = new Lingkaran(Jari2:5);
4         Lingkaran l2 = l1;
5
6         System.out.println(l1.getJari2()); //5
7         System.out.println(l2.getJari2()); //5
8
9         ubahJari2(l2); //value l2 diubah dengan fungsi ubahNrp
10
11        System.out.println(l1.getJari2()); //4 (krna l1 terikat sama l2 = 4)
12        System.out.println(l2.getJari2()); //4
13    }
14
15    public static void ubahJari2(Lingkaran obj){
16        obj.setJari2(Jari2:4); //l2 menjadi 4
17    }
18 }
19
```

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
-XX:+ShowCodeDetailsInExceptionMessages' '-cp' 'C:\Users\ASUS\AppData\Roaming\Code\User\workspaceStorage\16dbccc1d7721cc334ef7e500\redhat.java\jdt_ws\src_3d3a15c1\bin' 'Latihan7'
5
5
4
4
PS C:\Users\ASUS\Documents\Kulyeah\Semester 4\PBO (vsCode)\src>
```

Ready Reconnect to Discord Ln 19, Col 1 Spaces: 4 UTF-8