

YUSTINUS DWI ADYRA

1301223129

IF-46-10

ARF

1. Buatlah implementasi class Prodi dan Mahasiswa sesuai class diagram

Kode :

Prodi

```
31      //class prodi
32
33      class Prodi{
34          //field
35          private String nama;
36
37          //setter nama
38          public void setNama(String nama){
39              this.nama = nama;
40          }
41
42          //getter nama
43          public String getNama(){
44              return this.nama;
45          }
46
47          @Override
48          public String toString() {
49              return this.nama;
50          }
51      }
```

Mahasiswa

```

52      //class mahasiswa
53
54      class Mahasiswa{
55          //field
56          private String nama;
57          private Prodi prodi = new Prodi();
58
59          //setter setter nama
60          public void setName(String nama){
61              this.nama = nama;
62          }
63
64          //setter prodi
65          public void setProdi(Prodi prodi){
66              this.prodi = prodi;
67          }
68
69
70          //getter nama
71          public String getName(){
72              return this.nama;
73          }
74
75          //getter prodi
76          public Prodi getProdi(){
77              return this.prodi;
78          }
79
80          //implementasi display mahasiswa
81          void displayMahasiswa(){
82              System.out.print("Nama : " + this.getName());
83              System.out.print("Prodi : " + this.getProdi().toString());
84          }
85
86      }

```

2. Buat implementasi setter dan getter, pada masing-masing class diatas

Kode :

Prodi

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Mahasiswa

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```
//setter nama
public void setNama(String nama){
    this.nama = nama;
}
```

```
//getter nama
public String getNama() {
    return this.nama;
}
```

```
//setter setter nama
public void setNama(String nama){
    this.nama = nama;
}
```

```
//setter prodi
public void setProdi(Prodi prodi){
    this.prodi = prodi;
}
```

```
//getter nama
public String getNama() {
    return this.nama;
}
```

```
//getter prodi
public Prodi getProdi() {
    return this.prodi;
}
```

3. Buat implementasi method getProdi

Kode :

```
[-] //getter prodi
public Prodi getProdi(){
    return this.prodi;
}
```

4. Buat implementasi method displayMahasiswa di class mahasiswa

```
80 //implementasi display mahasiswa
81 [-] void displayMahasiswa(){
82     System.out.print("Nama : "+ this.getNama());
83     System.out.print("Prodi : "+ this.getProdi().toString());
84 }
```

5. Implementasi class di main.java

Kode :

```
11 public class TPmod3 {
12     [-] public static void main(String[] args) {
13         Prodi pr1 = new Prodi();
14         Prodi pr2 = new Prodi();
15         pr1.setNama(nama: "Informatika");
16         pr2.setNama(nama: "Rekayasa Perangkat lunak");
17
18         Mahasiswa mhs1 = new Mahasiswa();
19         Mahasiswa mhs2 = new Mahasiswa();
20
21         mhs1.setNama(nama: "Heristam Yuniawan");
22         mhs1.setProdi(prodi: pr1);
23         mhs2.setNama(nama: "Nugroho Rahmanto");
24         mhs2.setProdi(prodi: pr2);
25
26         mhs1.displayMahasiswa();
27         System.out.println();
28         mhs2.displayMahasiswa();
29     }
30 }
```

Output:

```
-----[ jar ]-----  
--- resources:3.3.1:resources (default-resources) @ TPmod3 ---  
skip non existing resourceDirectory D:\PBO\TPMOD3\TPmod3\src\main\resources  
--- compiler:3.11.0:compile (default-compile) @ TPmod3 ---  
Changes detected - recompiling the module! :source  
Compiling 1 source file with javac [debug target 22] to target\classes  
--- exec:3.1.0:exec (default-cli) @ TPmod3 ---  
Nama : Heristam YuniawanProdi : Informatika  
Nama : Nugroho RahmantoProdi : Rekayasa Perangkat lunak  
-----  
BUILD SUCCESS  
-----  
Total time: 1.619 s  
Finished at: 2024-09-29T20:04:50+07:00
```

SS lengkap kode :

```
5 package com.mycompany.tpmod3;  
6  
7 /**  
8  *  
9  * @author nbpav  
10 */  
11 public class TPmod3 {  
12     public static void main(String[] args) {  
13         Prodi pr1 = new Prodi();  
14         Prodi pr2 = new Prodi();  
15         pr1.setNama(nama: "Informatika");  
16         pr2.setNama(nama: "Rekayasa Perangkat lunak");  
17  
18         Mahasiswa mhs1 = new Mahasiswa();  
19         Mahasiswa mhs2 = new Mahasiswa();  
20  
21         mhs1.setNama(nama: "Heristam Yuniawan");  
22         mhs1.setProdi(prodi: pr1);  
23         mhs2.setNama(nama: "Nugroho Rahmanto");  
24         mhs2.setProdi(prodi: pr2);
```

```
26         mhs1.displayMahasiswa();
27         System.out.println();
28         mhs2.displayMahasiswa();
29     }
30 }
31 //class prodi
32
33 class Prodi{
34     //field
35     private String nama;
36
37     //setter nama
38     public void setNama(String nama){
39         this.nama = nama;
40     }
41
42     //getter nama
43     public String getNama(){
44         return this.nama;
45     }
46
47     @Override
48     public String toString() {
49         return this.nama;
```

```

50     }
51 }
52 //class mahasiswa
53
54 class Mahasiswa{
55     //field
56     private String nama;
57     private Prodi prodi = new Prodi();
58
59     //setter setter nama
60     public void setName(String nama){
61         this.nama = nama;
62     }
63
64     //setter prodi
65     public void setProdi(Prodi prodi){
66         this.prodi = prodi;
67     }
68
69
70     //getter nama
71     public String getName(){
72         return this.nama;
73     }
74
75     //getter prodi
76     public Prodi getProdi(){
77         return this.prodi;
78     }
79
80     //implementasi display mahasiswa
81     void displayMahasiswa(){
82         System.out.print("Nama : " + this.getName());
83         System.out.print("Prodi : " + this.getProdi().toString());
84     }
85
86 }

```

Output

```
-----[ jar ]-----  
[ ] --- resources:3.3.1:resources (default-resources) @ TPmod3 ---  
- skip non existing resourceDirectory D:\PBO\TPMOD3\TPmod3\src\main\resources  
[ ] --- compiler:3.11.0:compile (default-compile) @ TPmod3 ---  
- Changes detected - recompiling the module! :source  
- Compiling 1 source file with javac [debug target 22] to target\classes  
[ ] --- exec:3.1.0:exec (default-cli) @ TPmod3 ---  
- Nama : Heristam YuniawanProdi : Informatika  
- Nama : Nugroho RahmantoProdi : Rekayasa Perangkat lunak  
-----  
BUILD SUCCESS  
-----  
Total time: 1.619 s  
Finished at: 2024-09-29T20:04:50+07:00
```