

LAPORAN PRAKTIKUM
BASIS DATA
“Pertemuan ke-8”



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2B – D3 Teknik Informatika

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Latihan 7.1

1. Animal.java

```
Animal.java X Horse.java
1
2 public class Animal {
3     public void sound() {
4         System.out.println("Animal is making a sound");
5     }
6 }
7 }
```

2. Horse.java

```
Animal.java Horse.java X
1
2 public class Horse extends Animal {
3     @Override
4     public void sound() {
5         System.out.println("Neigh");
6     }
7
8     public static void main (String args[]) {
9         Animal obj = new Horse();
10        obj.sound();
11    }
12 }
13 }
```

3. Cat.java

```
Animal.java Horse.java Cat.java X
1
2 public class Cat extends Animal {
3     @Override
4     public void sound() {
5         System.out.println("Meow");
6     }
7
8     public static void main (String args[]) {
9         Animal obj = new Cat();
10        obj.sound();
11    }
12 }
```

Output

Horse.java :

```
Problems @ Javadoc Declaration
<terminated> Horse [Java Application] C:\P
Neigh
```

Cat.java :

```
Problems @ Javadoc Declaration
<terminated> Cat [Java Application] C:\Pr
Meow
```

Latihan 7.2

1. Overload.java

```
Overload.java × MethodOverloading.java Animal.java Hor
1
2 public class Overload {
3     void demo (int a)
4     {
5         System.out.println("a: " + a);
6     }
7     void demo (int a, int b)
8     {
9         System.out.println("a and b: " + a + "," + b);
10    }
11    double demo (double a) {
12        System.out.println("double a: " + a);
13        return a*a;
14    }
15 }
```

2. MethodOverloading.java

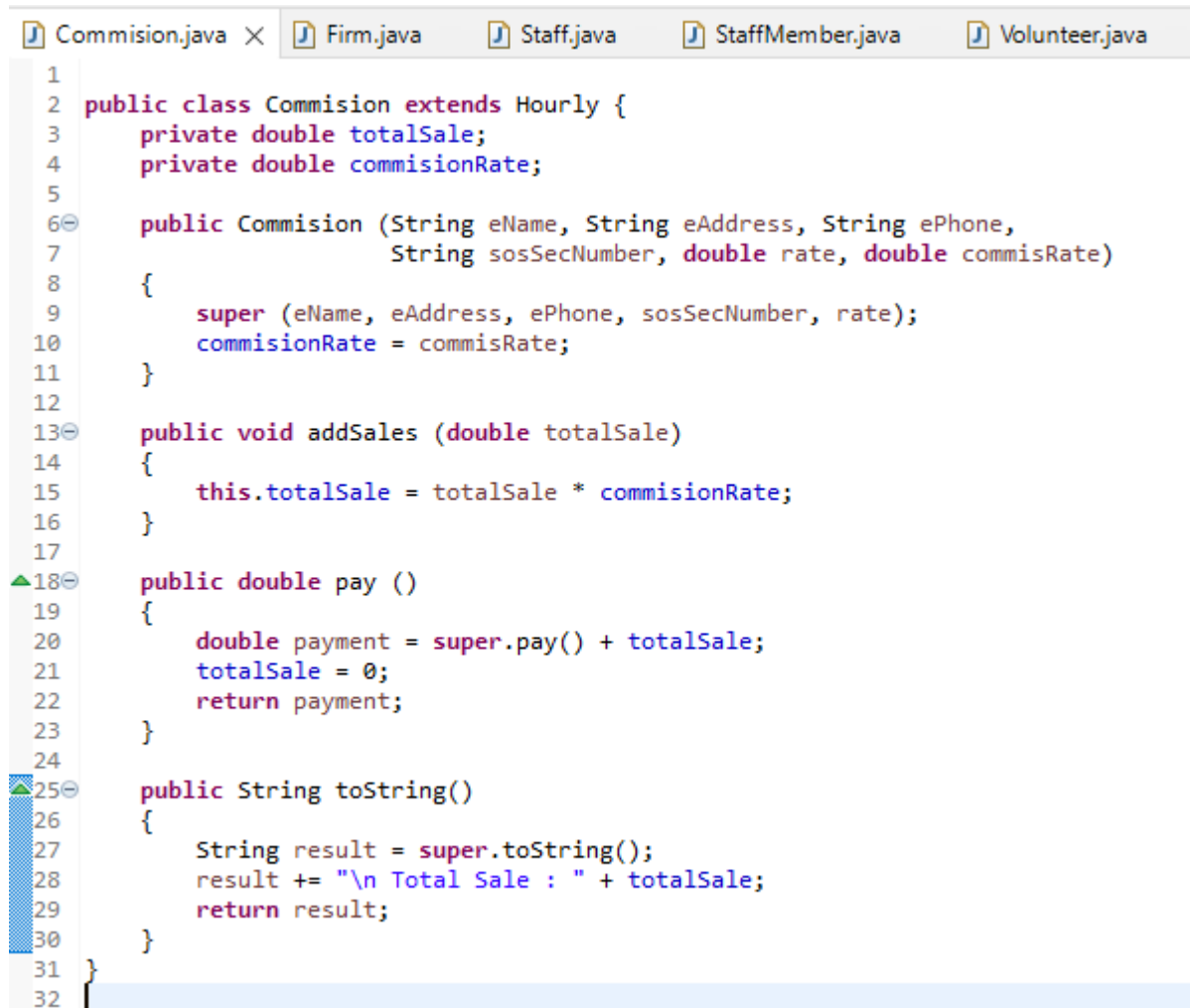
```
Overload.java MethodOverloading.java × Animal.java Ho
1
2 public class MethodOverloading {
3     public static void main (String args[])
4     {
5         Overload Obj = new Overload();
6         double result;
7         Obj.demo(10);
8         Obj.demo(10, 20);
9         result = Obj.demo(5.5);
10        System.out.println("O/P: " + result);
11    }
12 }
```

Output

```
Problems @ Javadoc Declaration Cc
<terminated> MethodOverloading [Java Application]
a: 10
a and b: 10,20
double a: 5.5
O/P: 30.25
```

Latihan 7.3

1. Membuat class `commision.java` sesuai dengan perintah pada dokumen



```
1 public class Commision extends Hourly {
2     private double totalSale;
3     private double commissionRate;
4
5
6     public Commision (String eName, String eAddress, String ePhone,
7         String sosSecNumber, double rate, double commisRate)
8     {
9         super (eName, eAddress, ePhone, sosSecNumber, rate);
10        commissionRate = commisRate;
11    }
12
13    public void addSales (double totalSale)
14    {
15        this.totalSale = totalSale * commissionRate;
16    }
17
18    public double pay ()
19    {
20        double payment = super.pay() + totalSale;
21        totalSale = 0;
22        return payment;
23    }
24
25    public String toString()
26    {
27        String result = super.toString();
28        result += "\n Total Sale : " + totalSale;
29        return result;
30    }
31 }
32
```

2. Mengubah class `Staff.java` dengan mengubah indeks array yang asalnya 6 menjadi 8 lalu menambahkan 2 karyawan yang ditugaskan ke daftar staf (buat nama, alamat, nomor telepon, dan nomor jaminan sosial Anda sendiri) . Buat salah satu karyawan mendapatkan \$6,25 per jam dan komisi 20% dan yang lainnya mendapatkan \$9,75 per jam dan komisi 15%. Untuk karyawan tambahan pertama yang Anda tambahkan, masukkan jam kerja pada 35 dan total penjualan \$400; untuk yang kedua, letakkan jam di 40 dan penjualan di \$950.

```

Commision.java  Firm.java  Staff.java  StaffMember.java  Volunteer.java
1  public class Staff {
2      StaffMember[] staffList;
3
4  public Staff ()
5  {
6      staffList = new StaffMember[8];
7      staffList[0] = new Executive ("Sam", "123 Main Line",
8      "555-0469", "123-45-6789", 2423.07);
9      staffList[1] = new Employee ("Carla", "456 Off Line",
10     "555-0101", "987-65-4321", 1246.15);
11     staffList[2] = new Employee ("Woody", "789 Off Rocker",
12     "555-0000", "010-20-3040", 1169.23);
13     staffList[3] = new Hourly ("Diane", "678 Fifth Ave",
14     "555-0690", "958-47-3625", 10.55);
15
16     staffList[4] = new Volunteer ("Norm", "987 Suds Blvd",
17     "555-8374");
18     staffList[5] = new Volunteer ("Cliff", "321 Duds Lane",
19     "555-7282");
20
21     staffList[6] = new Commision ("Alifah", "Cibereum Bandung",
22     "555-8789", "952-12-0871", 6.25, 0.2);
23     staffList[7] = new Commision ("Salsa", "Cimindi Bandung",
24     "555-8848", "123-32-0879", 9.75, 0.15);
25
26     ((Executive)staffList[0]).awardBonus (500.00);
27     ((Hourly)staffList[3]).addHours (40);
28     ((Commision)staffList[6]).addHours (35);
29     ((Commision)staffList[6]).addSales(400);
30     ((Commision)staffList[7]).addHours (40);
31     ((Commision)staffList[7]).addSales(950);
32 }

```

```

34 public void payday()
35 {
36     double amount;
37     for(int count=0; count < staffList.length; count++)
38     {
39         System.out.println (staffList[count]);
40
41         amount = staffList[count].pay();
42         if (amount == 0.0)
43             System.out.println ("Thanks!");
44         else
45             System.out.println ("Paid: " + amount);
46
47         System.out.println("-----");
48     }
49 }
50 }
51

```

3. Firm.java

```
Commission.java Firm.java X Staff.java StaffMembr
1
2 public class Firm {
3     public static void main (String[] args)
4     {
5         Staff personnel = new Staff();
6         personnel.payday();
7     }
8 }
9
```

4. StaffMember.java

```
StaffMember.java X Commission.java Firm.java Staff.java Volunte
1
2 abstract public class StaffMember {
3     protected String name;
4     protected String address;
5     protected String phone;
6
7
8     public StaffMember (String eName, String eAddress, String ePhone)
9     {
10         name = eName;
11         address = eAddress;
12         phone = ePhone;
13     }
14
15     public String toString() {
16         String result = "Name : " + name + "\n";
17
18         result += "Address: " + address + "\n";
19         result += "Phone: " + phone;
20
21         return result;
22     }
23     public abstract double pay();
24 }
```

5. Volunteer.java

```
Volunteer.java X StaffMember.java Commission.java Firm.java Staff.java
1
2 public class Volunteer extends StaffMember {
3     public Volunteer (String eName, String eAddress, String ePhone)
4     {
5         super (eName, eAddress, ePhone);
6     }
7
8     public double pay()
9     {
10         return 0.0;
11     }
12 }
```

6. Employee.java

```
Employee.java × Volunteer.java StaffMember.java Commision.java Firm.java Staff.java Ex
1
2 public class Employee extends StaffMember {
3     protected String socialSecurityNumber;
4     protected double payRate;
5
6
7     public Employee (String eName, String eAddress, String ePhone, String socSecNumber, double rate)
8     {
9         super (eName, eAddress, ePhone);
10
11         socialSecurityNumber = socSecNumber;
12         payRate = rate;
13     }
14
15     public String toString()
16     {
17         String result = super.toString();
18
19         result += "\nSocial Security Number : " + socialSecurityNumber;
20
21         return result;
22     }
23
24     public double pay ()
25     {
26         return payRate;
27     }
28 }
```

7. Executive.java

```
Executive.java × Employee.java Volunteer.java StaffMember.java Commision.java Firm.java Stat
1
2 public class Executive extends Employee {
3     private double bonus;
4
5     public Executive (String eName, String eAddress, String ePhone, String socSecNumber, double rate)
6     {
7         super (eName, eAddress, ePhone, socSecNumber, rate);
8
9         bonus = 0;
10    }
11
12    public void awardBonus(double execBonus)
13    {
14        bonus = execBonus;
15    }
16
17    public double pay()
18    {
19        double payment = super.pay() + bonus;
20
21        bonus = 0;
22
23        return payment;
24    }
25 }
26 }
```

8. Hourly.java

```
Hourly.java × Executive.java Employee.java Volunteer.java StaffMember.java Commision.java Fi
1
2 public class Hourly extends Employee{
3
4     private int hoursWorked;
5
6 public Hourly (String eName, String eAddress, String ePhone, String sosSecNumber, double rate)
7 {
8     super (eName, eAddress, ePhone, sosSecNumber, rate);
9
10    hoursWorked = 0;
11 }
12
13 public void addHours (int moreHours)
14 {
15     hoursWorked +=moreHours;
16 }
17
18 public double pay ()
19 {
20     double payment = payRate * hoursWorked;
21
22     hoursWorked = 0;
23
24     return payment;
25 }
26
27 public String toString () {
28     String result = super. toString();
29
30     result += "\nCurrent hourse " + hoursWorked;
31
32     return result;
33 }
34 }
```


Output

```
Problems @ Javadoc Declaration Console X
<terminated> Firm [Java Application] C:\Program Files\Java\jdk-11.0.12\bin\javaw.exe (No
Name : Sam
Address: 123 Main Line
Phone: 555-0469
Social Security Number : 123-45-6789
Paid: 2923.07
-----
Name : Carla
Address: 456 Off Line
Phone: 555-0101
Social Security Number : 987-65-4321
Paid: 1246.15
-----
Name : Woody
Address: 789 Off Rocker
Phone: 555-0000
Social Security Number : 010-20-3040
Paid: 1169.23
-----
Name : Diane
Address: 678 Fifth Ave
Phone: 555-0690
Social Security Number : 958-47-3625
Current hourse 40
Paid: 422.0
-----
Name : Norm
Address: 987 Suds Blvd
Phone: 555-8374
Thanks!
-----
Name : Cliff
Address: 321 Duds Lane
Phone: 555-7282
Thanks!
-----
Name : Alifah
Address: Cibereum Bandung
Phone: 555-8789
Social Security Number : 952-12-0871
Current hourse 35
Total Sale : 80.0
Paid: 298.75
-----
Name : Salsa
Address: Cimindi Bandung
Phone: 555-8848
Social Security Number : 123-32-0879
Current hourse 40
Total Sale : 142.5
Paid: 532.5
-----
```