OBJECT ORIENTED PROGRAMMING LABORATORY WORK

MODULE 2

CREATED BY :

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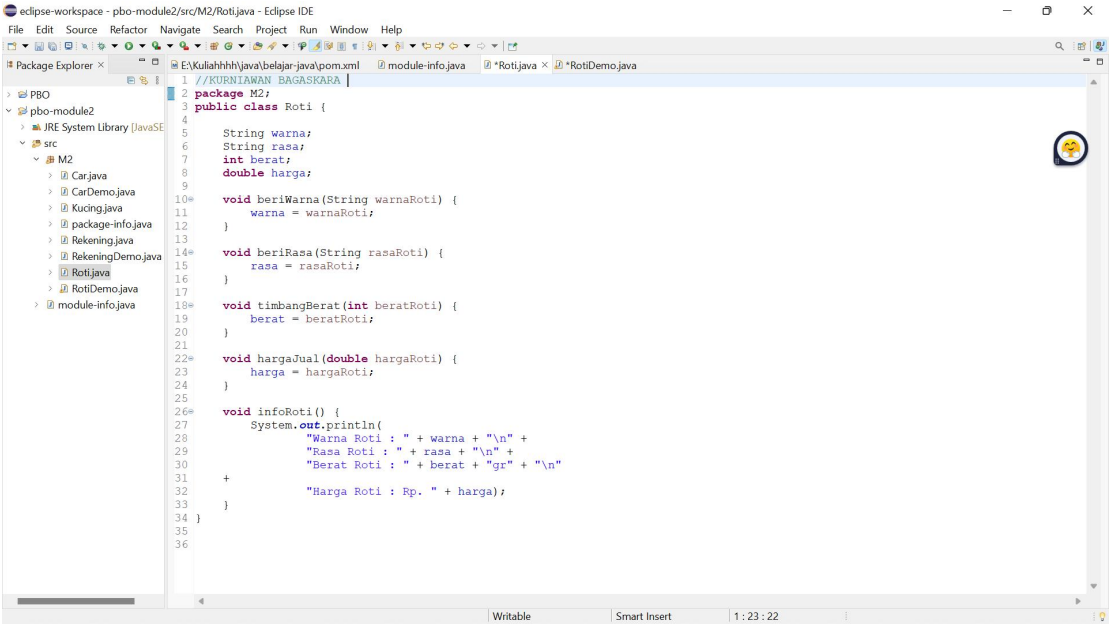
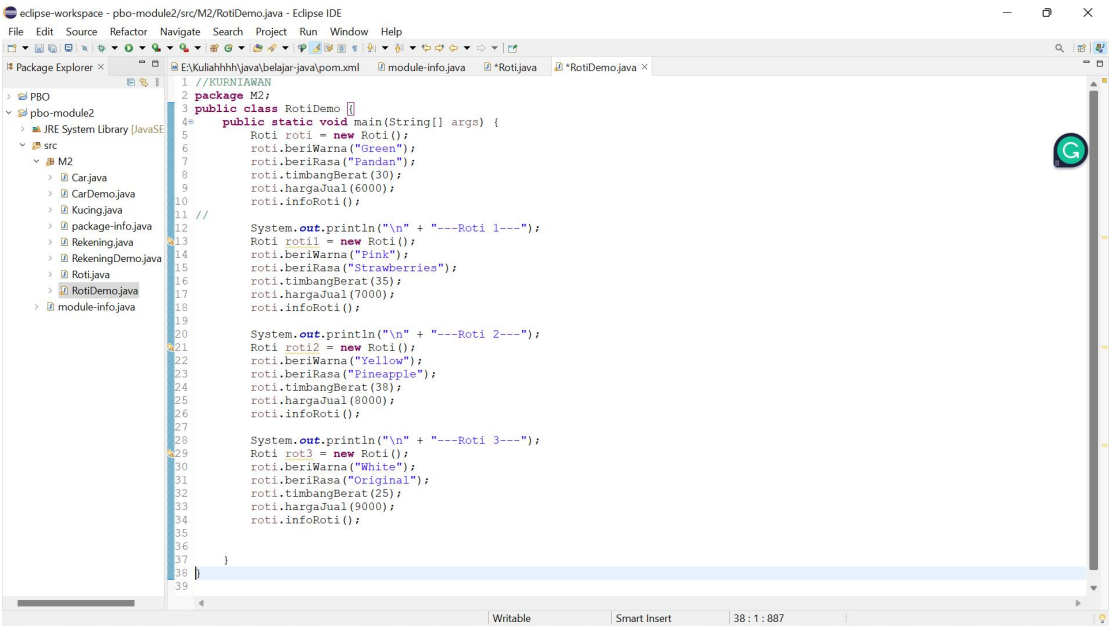
INFORMATICS STUDY PROGRAM

FACULTY OF COMMUNICATION AND INFORMATION SCIENCE

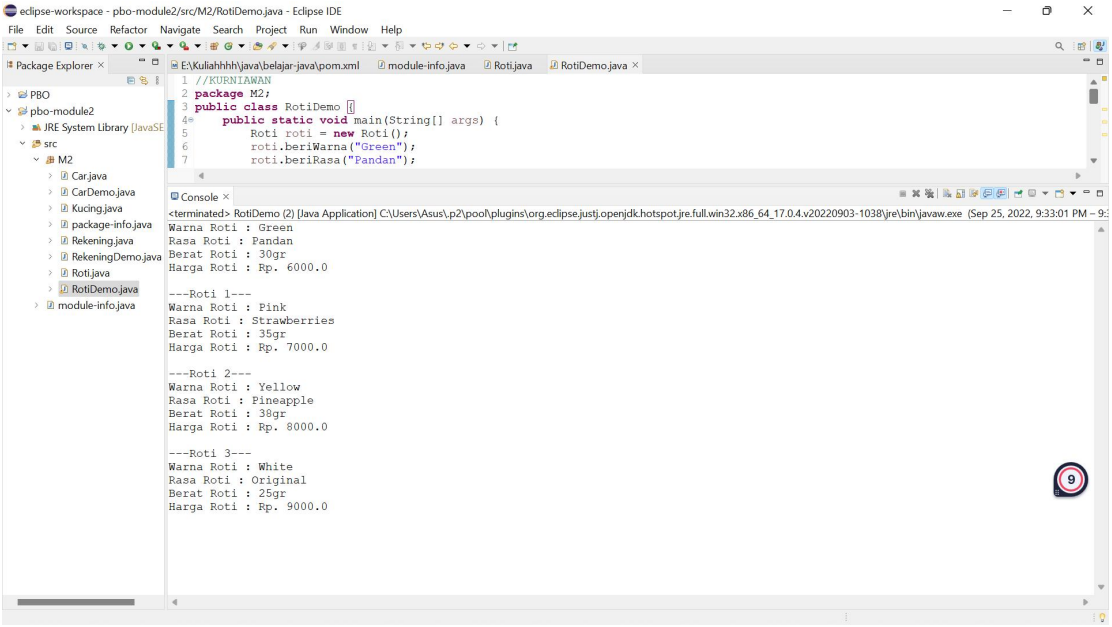
MUHAMMADIYAH SURAKARTA UNIVERSITY

1. Modify the Demo Bread class and create 3 new objects:

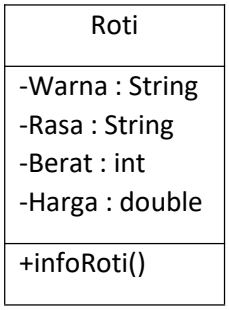


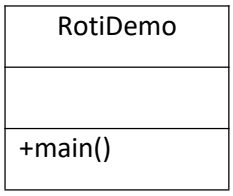


Output:

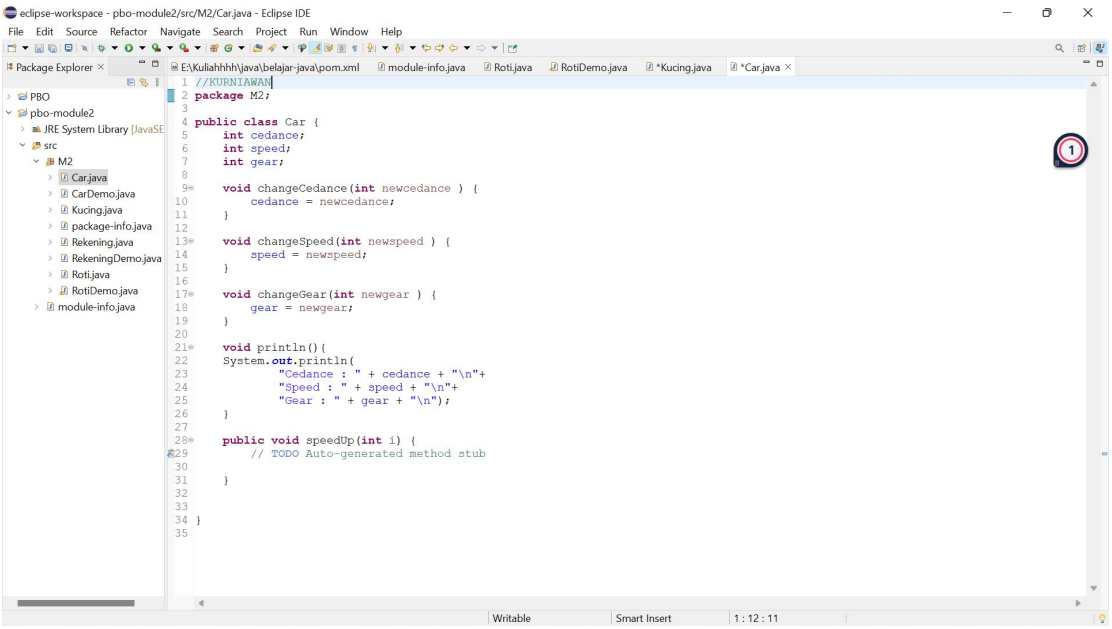


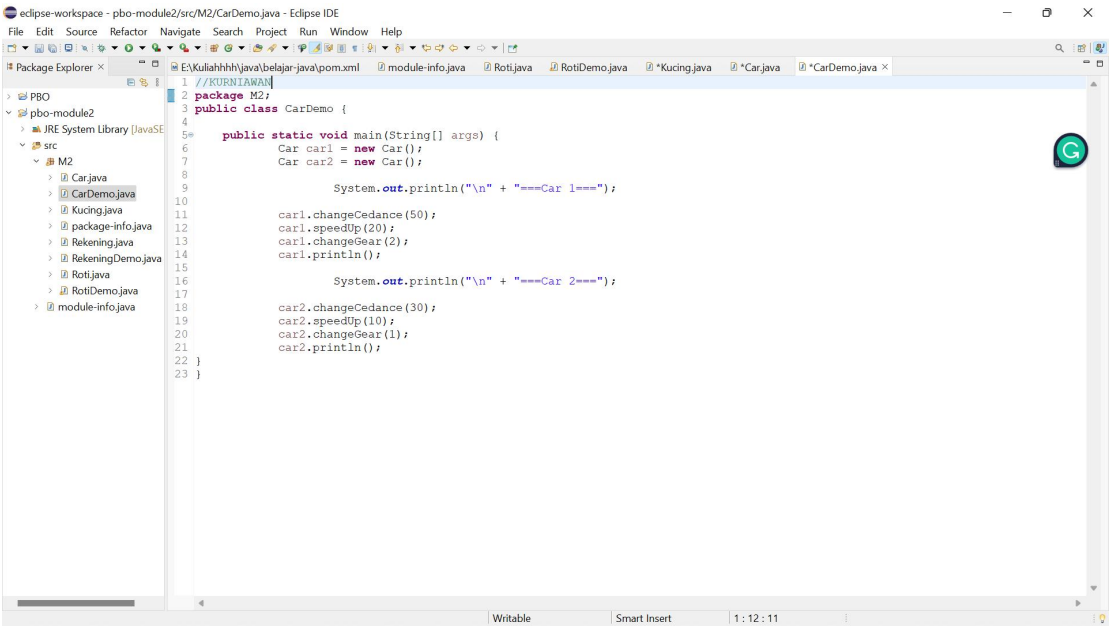
2. Class diagram of Bread Demo



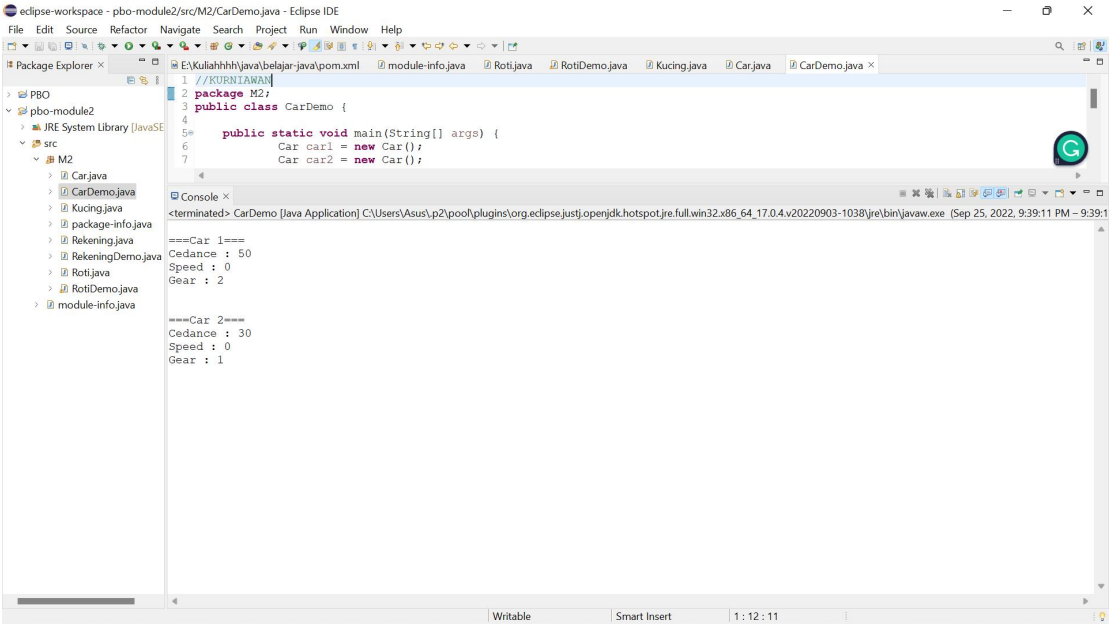


3. Create a new class that can be used as a template from the CarDemo class:

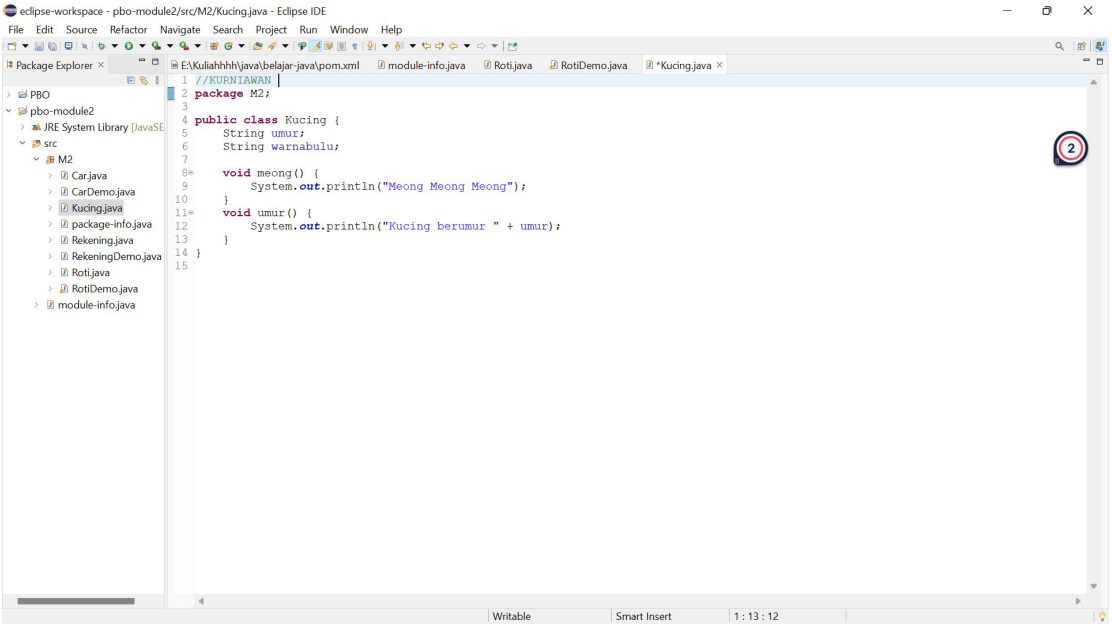




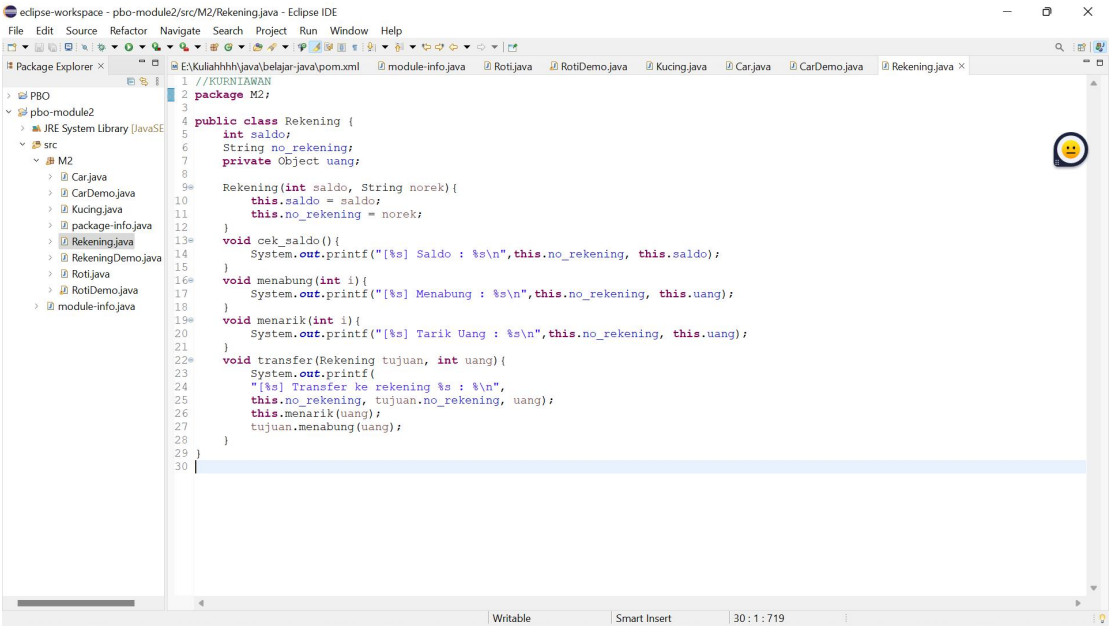
Output:



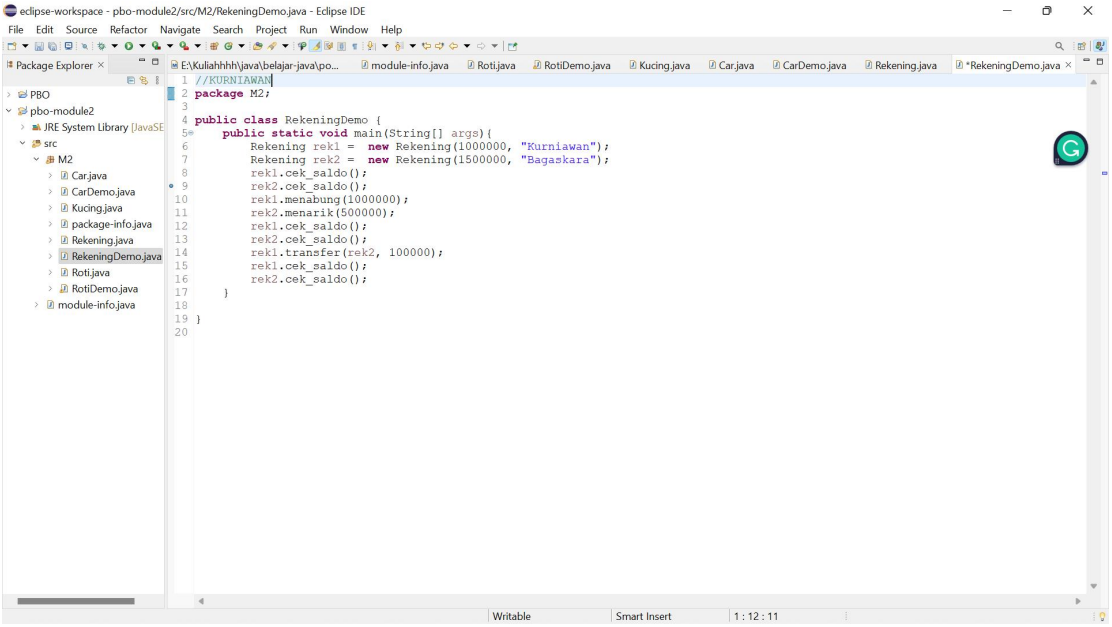
4.Create a class that can represent the properties of the Cat object. This object has fields/variables/properties in the form of age, fur color, and methods 5. Create a class that can represent the Account Object. The variables of this object are balance, no_account, name, and methods in the form of check_saldo(), saving(),withdraw(),and : :



5.Create a class that can represent the Account Object. The variables of this object are balance, no_account, name, and methods in the form of check_saldo(), saving(),withdraw(),and transfer()

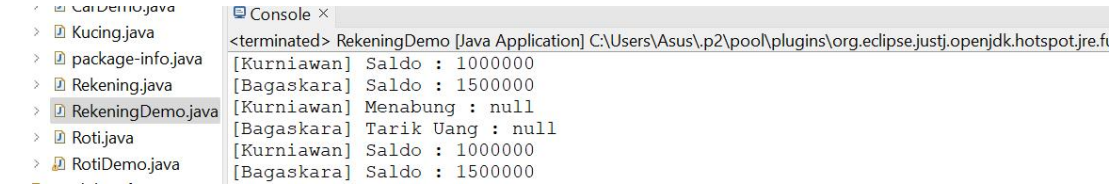


```
//KURNIAWAN
package M2;

public class Rekening {
    int saldo;
    String no_rekening;
    private Object uang;

    Rekening(int saldo, String norek){
        this.saldo = saldo;
        this.no_rekening = norek;
    }
    void cek_saldo(){
        System.out.printf("[%s] Saldo : %s\n",this.no_rekening, this.saldo);
    }
    void menabung(int i){
        System.out.printf("[%s] Menabung : %s\n",this.no_rekening, this.uang);
    }
    void menarik(int i){
        System.out.printf("[%s] Tarik Uang : %s\n",this.no_rekening, this.uang);
    }
    void transfer(Rekening tujuan, int uang){
        System.out.printf(
        "[%s] Transfer ke rekening %s : %\n",
        this.no_rekening, tujuan.no_rekening, uang);
        this.menarik(uang);
        tujuan.menabung(uang);
    }
}
```



```
//KURNIAWAN
package M2;

public class RekeningDemo {
    public static void main(String[] args){
        Rekening rek1 =  new Rekening(1000000, "Kurniawan");
        Rekening rek2 =  new Rekening(1500000, "Bagaskara");
        rek1.cek_saldo();
        rek2.cek_saldo();
        rek1.menabung(1000000);
        rek2.menarik(500000);
        rek1.cek_saldo();
        rek2.cek_saldo();
        rek1.transfer(rek2, 100000);
        rek1.cek_saldo();
        rek2.cek_saldo();
    }
}
```

OUTPUT:



```
Kucing.java
package-info.java
Rekening.java
RekeningDemo.java
Roti.java
RotiDemo.java

Console
<terminated> RekeningDemo [Java Application] C:\Users\Asus\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.f
[Kurniawan] Saldo : 1000000
[Bagaskara] Saldo : 1500000
[Kurniawan] Menabung : null
[Bagaskara] Tarik Uang : null
[Kurniawan] Saldo : 1000000
[Bagaskara] Saldo : 1500000
```

6. List of variables and functions/methods owned by the String Class:

-How to use charAt(int)

This function will return the character in a string in accordance with the index entered.

-How to use codePointAt(int)

This function will return the ASCII code of a char taken from the corresponding String.

-How to use codePointBefore(int)

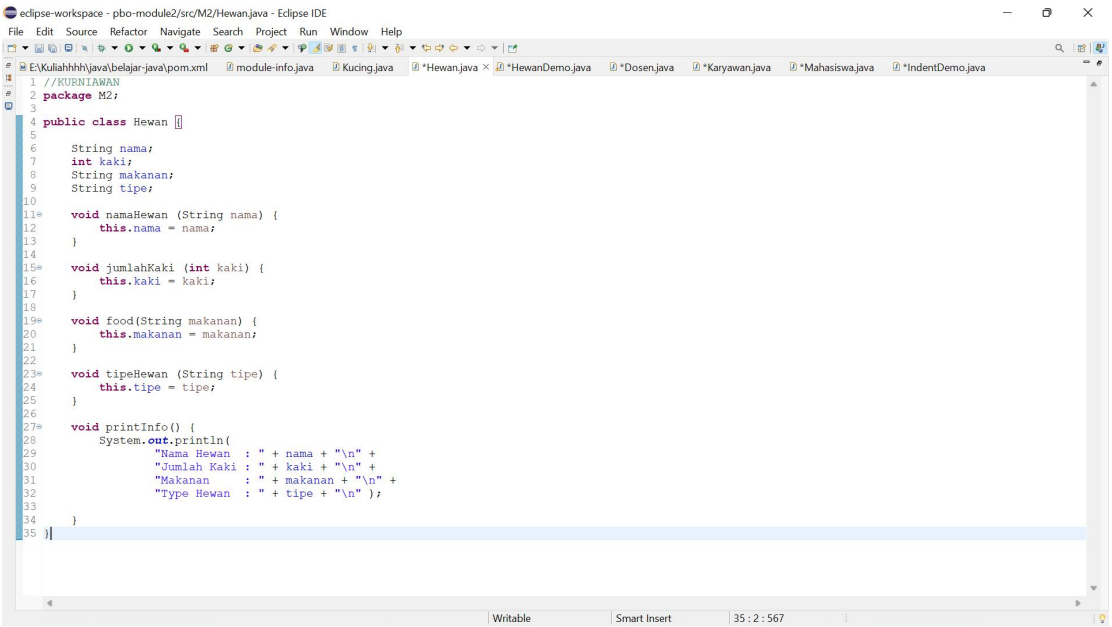
This function will also return the ASCII code of the characters taken from a String.

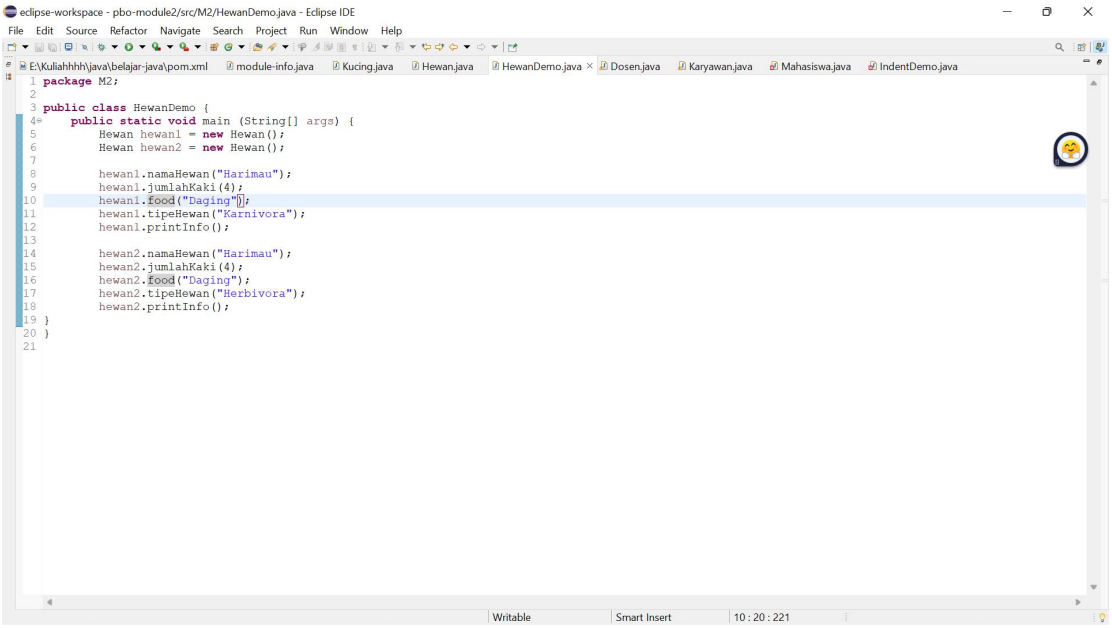
-How to use codePointCount(int,int)

This function will return the length of the string according to the range entered.

TASK 2.5

1. Creating an Animal class and also creating objects from that class so that you can create various kinds of animal objects with their respective characters:




eclipse-workspace - pbo-module2/src/M2/HewanDemo.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
E:\Kuliahhhh\java\belajar-java\pom.xml
module-info.java
Kucing.java
Hewan.java
HewanDemo.java
Dosen.java
Karyawan.java
Mahasiswa.java
IndentDemo.java
1 package M2;
2
3 public class HewanDemo {
4 public static void main (String[] args) {
5 Hewan hewan1 = new Hewan();
6 Hewan hewan2 = new Hewan();
7
8 hewan1.namaHewan("Harimau");
9 hewan1.jumlahKaki(4);
10 hewan1.food("Daging");
11 hewan1.tipeHewan("Karnivora");
12 hewan1.printInfo();
13
14 hewan2.namaHewan("Harimau");
15 hewan2.jumlahKaki(4);
16 hewan2.food("Daging");
17 hewan2.tipeHewan("Herbivora");
18 hewan2.printInfo();
19 }
20 }
21
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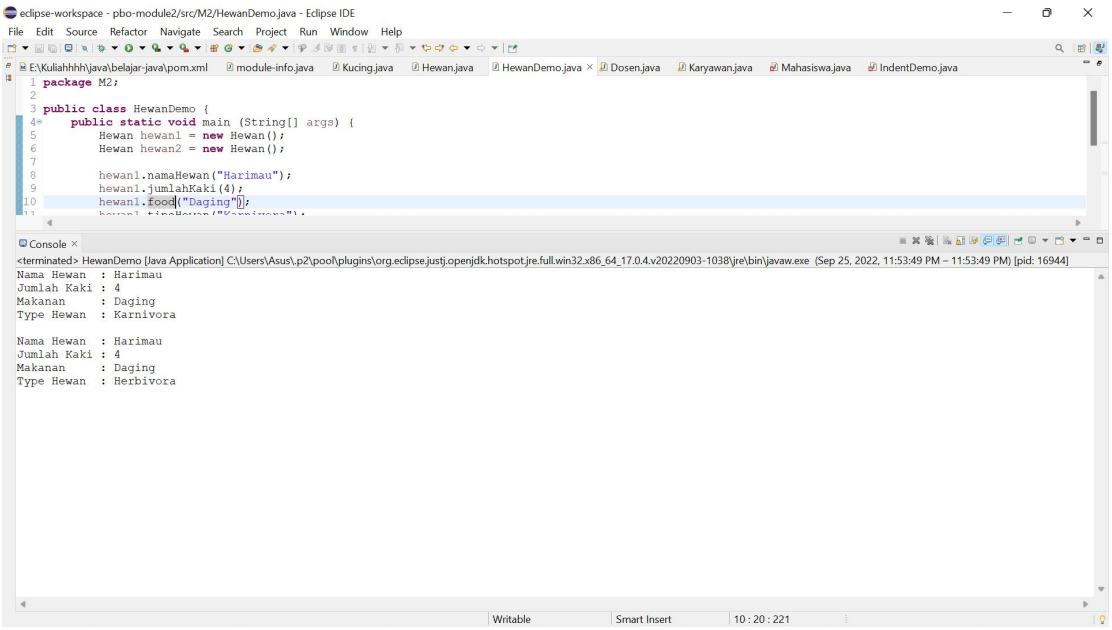
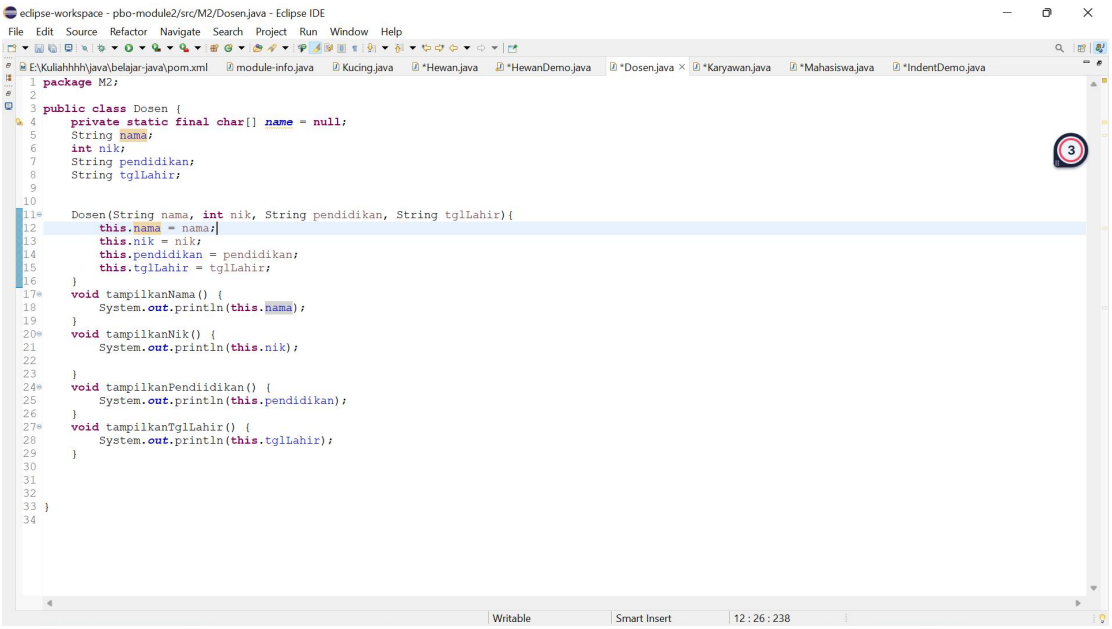
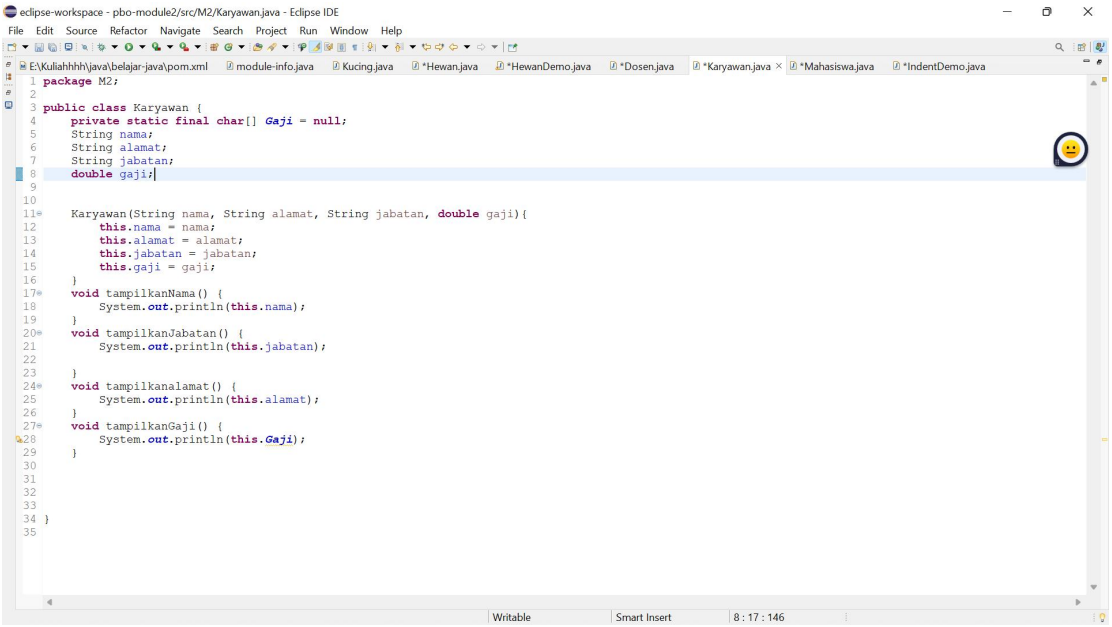
10 : 20 : 221

Output :


eclipse-workspace - pbo-module2/src/M2/HewanDemo.java - Eclipse IDE
File Edit Source Refactor Navigate Search Project Run Window Help
E:\Kuliahhhh\java\belajar-java\pom.xml
module-info.java
Kucing.java
Hewan.java
HewanDemo.java
Dosen.java
Karyawan.java
Mahasiswa.java
IndentDemo.java
1 package M2;
2
3 public class HewanDemo {
4 public static void main (String[] args) {
5 Hewan hewan1 = new Hewan();
6 Hewan hewan2 = new Hewan();
7
8 hewan1.namaHewan("Harimau");
9 hewan1.jumlahKaki(4);
10 hewan1.food("Daging");
Console
<terminated> HewanDemo [Java Application] C:\Users\Asus\.p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_17.0.4.v20220903-1038\jre\bin\javaw.exe (Sep 25, 2022, 11:53:49 PM – 11:53:49 PM) [pid: 16944]
Nama Hewan : Harimau
Jumlah Kaki : 4
Makanan : Daging
Type Hewan : Karnivora
Nama Hewan : Harimau
Jumlah Kaki : 4
Makanan : Daging
Type Hewan : Herbivora
Writable
Smart Insert
10 : 20 : 221

2.Create a class based on the class diagram of Lecturers, Employees, and Students according to Figure 2.4 in the module:





eclipse-workspace - pbo-module2/src/M2/Mahasiswa.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

E:\Kuliahhhh\java\belajar-java\pom.xml | module-info.java | Kucing.java | *Hewan.java | *HewanDemo.java | *Dosen.java | *Karyawan.java | *Mahasiswa.java | *IndentDemo.java

```java
package M2;

public class Mahasiswa {
    String nama;
    String nim;
    String alamat;
    int  semester;



    Mahasiswa(String nama, String nim, String alamat, dint semester){
        this.nama = nama;
        this.nim = nim;
        this.alamat = alamat;
        this.semester = semseter;
    }
    void tampilkanNama() {
        System.out.println(this.nama);
    }
    void tampilkanNim() {
        System.out.println(this.Nim);

    }
    void tampilkanalamat() {
        System.out.println(this.alamat);
    }
    void tampilkanSemester() {
        System.out.println(this.semester);
    }









}
}
```

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eclipse-workspace - pbo-module2/src/M2/IndentDemo.java - Eclipse IDE

File Edit Source Refactor Navigate Search Project Run Window Help

E:\Kuliahhhh\java\belajar-java\pom.xml | module-info.java | Kucing.java | *Hewan.java | *HewanDemo.java | *Dosen.java | *Karyawan.java | *Mahasiswa.java | *IndentDemo.java

```java
package M2;

public class IndentDemo {
    public static void main(String[] args){
        Dosen dosen = new Dosen ("pak fajar ", 3372, "s2 informatika", "8 januari 1968");
        Karyawan karyawan = new Karyawan("pak dandi", "Jl kebon jeruk", "karyawan tetap", 2500000);
        Mahasiswa mahasiswa = new Mahasiswa("Kurniawan bagaskara ", "1200214253", "jalan ir sutami 56", 3);

        System.out.println("==== Info Dosen====");
        dosen.tampilkanNama();
        dosen.tampilkanNik();
        dosen.tampilkanPendidikan();
        dosen.tampilkanTgllahir();
        System.out.println("\n");

        System.out.println("==== Info Karyawan====");
        dosen.tampilkanNama();
        dosen.tampilkanAlamat();
        dosen.tampilkanAJabatn();
        dosen.tampilkanGaji();
        System.out.println("\n");

        System.out.println("==== Info Mahasiswa====");
        dosen.tampilkanNama();
        dosen.tampilkanNim();
        dosen.tampilkanAlamat();
        dosen.tampilkansemester();
        System.out.println("\n");
    }



}
```

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