

Nama : Alif Al Amin

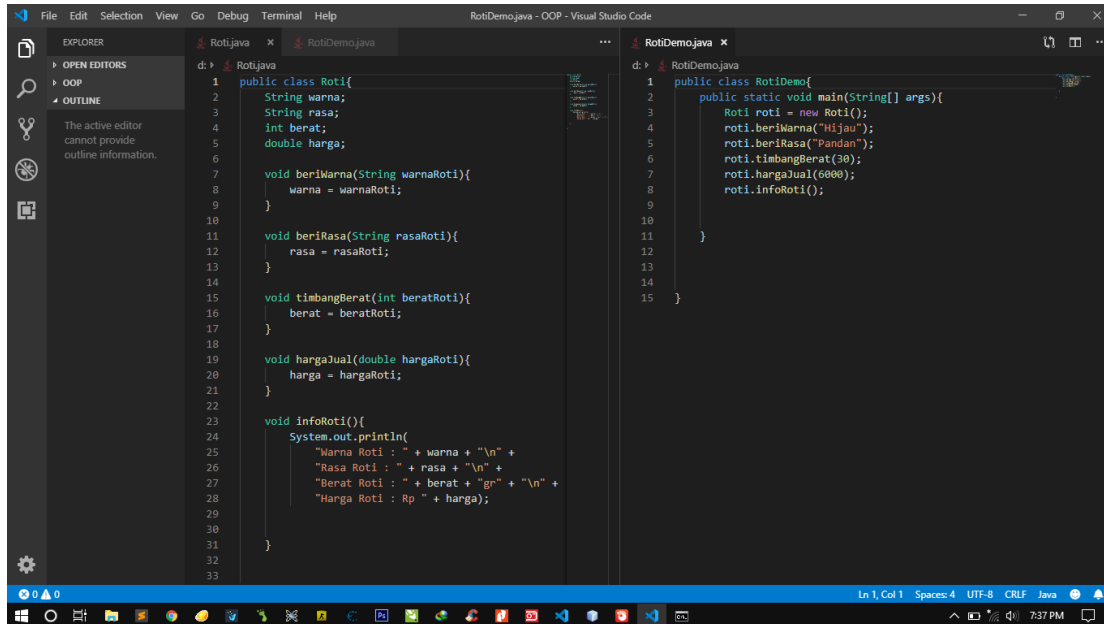
NIM : L200180082

Kelas : B

Modul 2

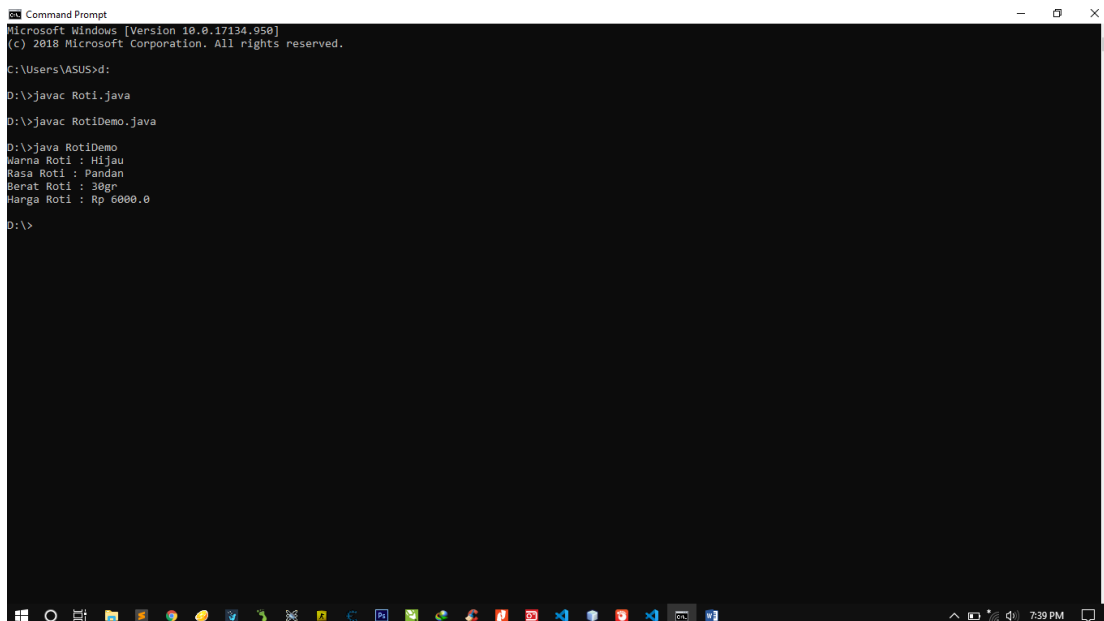
1. Membuat class Roti dan RotiDemo

Code :



```
Roti.java
1 public class Roti{
2     String warna;
3     String rasa;
4     int berat;
5     double harga;
6
7     void beriWarna(String warnaRoti){
8         warna = warnaRoti;
9     }
10
11    void beriRasa(String rasaRoti){
12        rasa = rasaRoti;
13    }
14
15    void timbangBerat(int beratRoti){
16        berat = beratRoti;
17    }
18
19    void hargaJual(double hargaRoti){
20        harga = hargaRoti;
21    }
22
23    void infoRoti(){
24        System.out.println(
25            "Warna Roti : " + warna + "\n" +
26            "Rasa Roti : " + rasa + "\n" +
27            "Berat Roti : " + berat + "gr" + "\n" +
28            "Harga Roti : Rp " + harga);
29    }
30
31 }
32
33
RotiDemo.java
1 public class RotiDemo{
2     public static void main(String[] args){
3         Roti roti = new Roti();
4         roti.beriWarna("Hijau");
5         roti.beriRasa("Pandan");
6         roti.timbangBerat(300);
7         roti.hargaJual(6000);
8         roti.infoRoti();
9     }
10
11 }
12
13
14
15 }
```

Hasil CMD :



```
Microsoft Windows [Version 10.0.17134.950]
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C:\Users\ASUS>d:

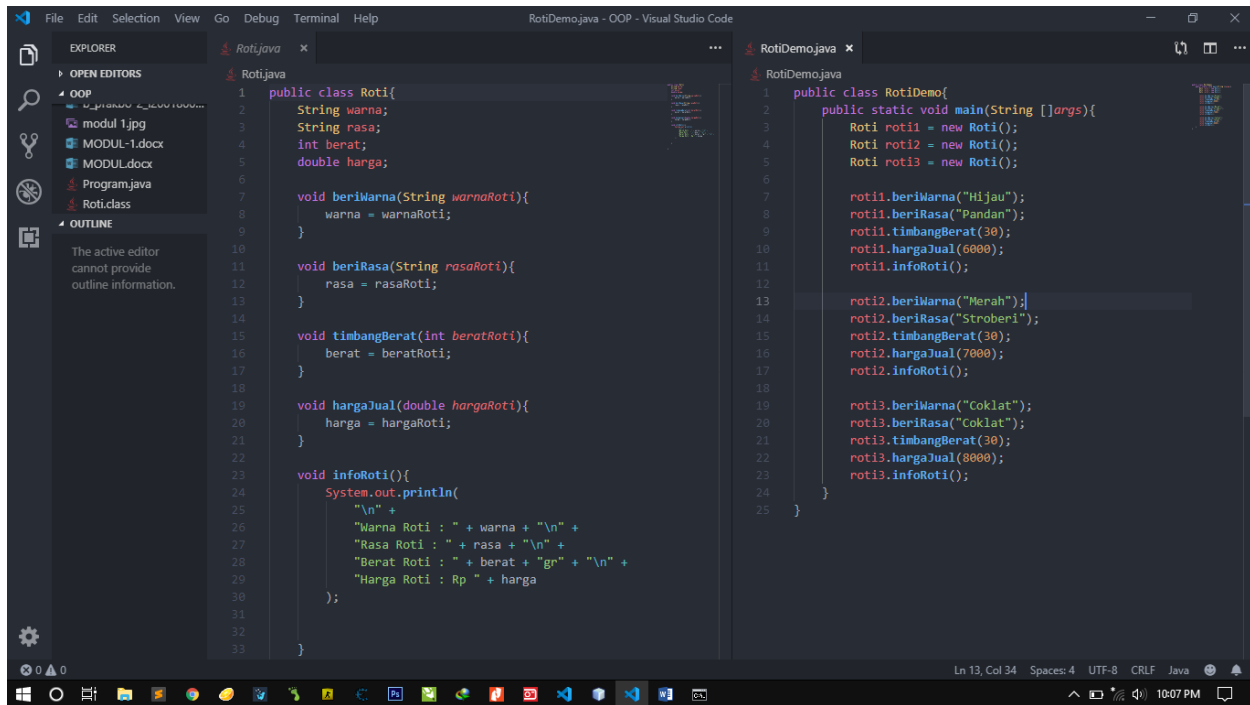
D:\>javac Roti.java

D:\>javac RotiDemo.java

D:\>java RotiDemo
Warna Roti : Hijau
Rasa Roti : Pandan
Berat Roti : 300gr
Harga Roti : Rp 6000.0

D:\>
```

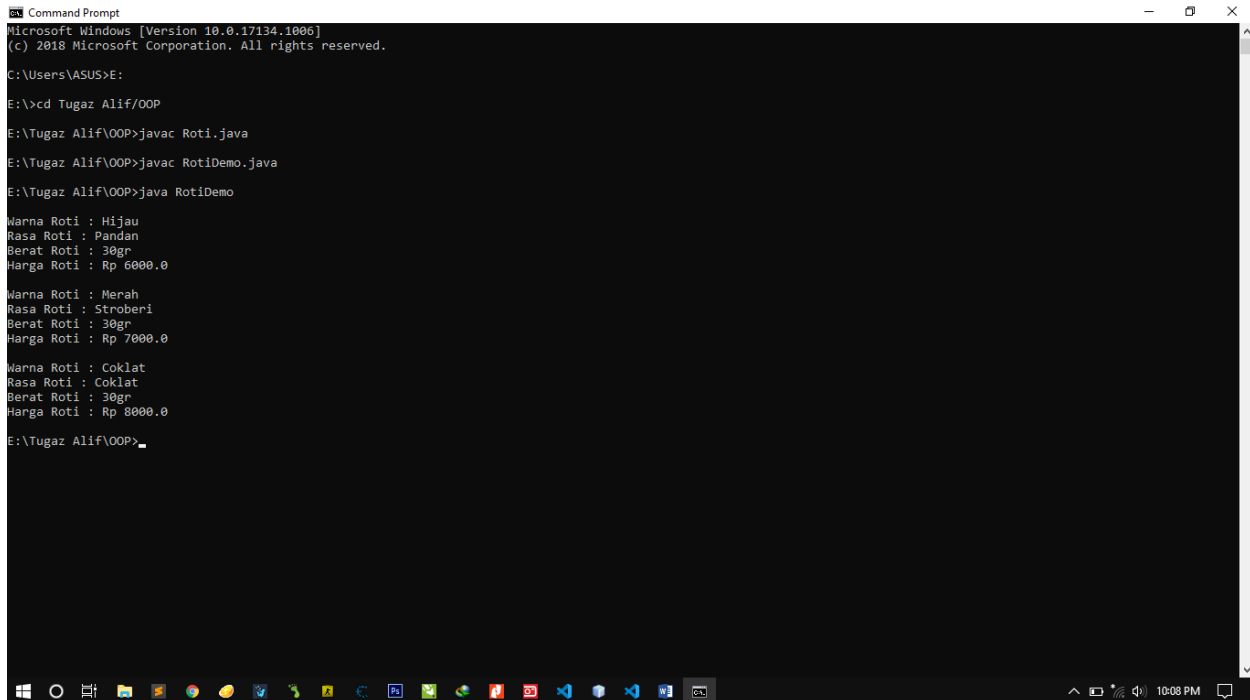
2. Memodifikasi class RotiDemo dan menambah 3 object



The screenshot shows the Visual Studio Code editor with two files open: `Roti.java` and `RotiDemo.java`. The `Roti.java` file contains the `Roti` class with attributes `warna`, `rasa`, `berat`, and `harga`, and methods `beriWarna`, `beriRasa`, `timbangBerat`, `hargaJual`, and `infoRoti`. The `RotiDemo.java` file shows the `main` method being updated to create three `Roti` objects: `roti1` (Hijau, Pandan, 30g, 6000), `roti2` (Merah, Stroberi, 30g, 7000), and `roti3` (Coklat, Coklat, 30g, 8000). Each object is instantiated and its `infoRoti` method is called.

```
1 public class Roti{
2     String warna;
3     String rasa;
4     int berat;
5     double harga;
6
7     void beriWarna(String warnaRoti){
8         warna = warnaRoti;
9     }
10
11    void beriRasa(String rasaRoti){
12        rasa = rasaRoti;
13    }
14
15    void timbangBerat(int beratRoti){
16        berat = beratRoti;
17    }
18
19    void hargaJual(double hargaRoti){
20        harga = hargaRoti;
21    }
22
23    void infoRoti(){
24        System.out.println(
25            "\n" +
26            "Warna Roti : " + warna + "\n" +
27            "Rasa Roti : " + rasa + "\n" +
28            "Berat Roti : " + berat + "gr" + "\n" +
29            "Harga Roti : Rp " + harga
30        );
31    }
32 }
33
```

```
1 public class RotiDemo{
2     public static void main(String []args){
3         Roti roti1 = new Roti();
4         Roti roti2 = new Roti();
5         Roti roti3 = new Roti();
6
7         roti1.beriWarna("Hijau");
8         roti1.beriRasa("Pandan");
9         roti1.timbangBerat(30);
10        roti1.hargaJual(6000);
11        roti1.infoRoti();
12
13        roti2.beriWarna("Merah");
14        roti2.beriRasa("Stroberi");
15        roti2.timbangBerat(30);
16        roti2.hargaJual(7000);
17        roti2.infoRoti();
18
19        roti3.beriWarna("Coklat");
20        roti3.beriRasa("Coklat");
21        roti3.timbangBerat(30);
22        roti3.hargaJual(8000);
23        roti3.infoRoti();
24    }
25 }
```



The screenshot shows a Windows Command Prompt window where the `RotiDemo` program is compiled and executed. The output shows the details of the three `Roti` objects created: `roti1` (Hijau, Pandan, 30gr, Rp 6000.0), `roti2` (Merah, Stroberi, 30gr, Rp 7000.0), and `roti3` (Coklat, Coklat, 30gr, Rp 8000.0).

```
Microsoft Windows [Version 10.0.17134.1006]
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C:\Users\ASUS>E:

E:\>cd Tugaz Alif\OOP

E:\Tugaz Alif\OOP>javac Roti.java

E:\Tugaz Alif\OOP>javac RotiDemo.java

E:\Tugaz Alif\OOP>java RotiDemo

Warna Roti : Hijau
Rasa Roti : Pandan
Berat Roti : 30gr
Harga Roti : Rp 6000.0

Warna Roti : Merah
Rasa Roti : Stroberi
Berat Roti : 30gr
Harga Roti : Rp 7000.0

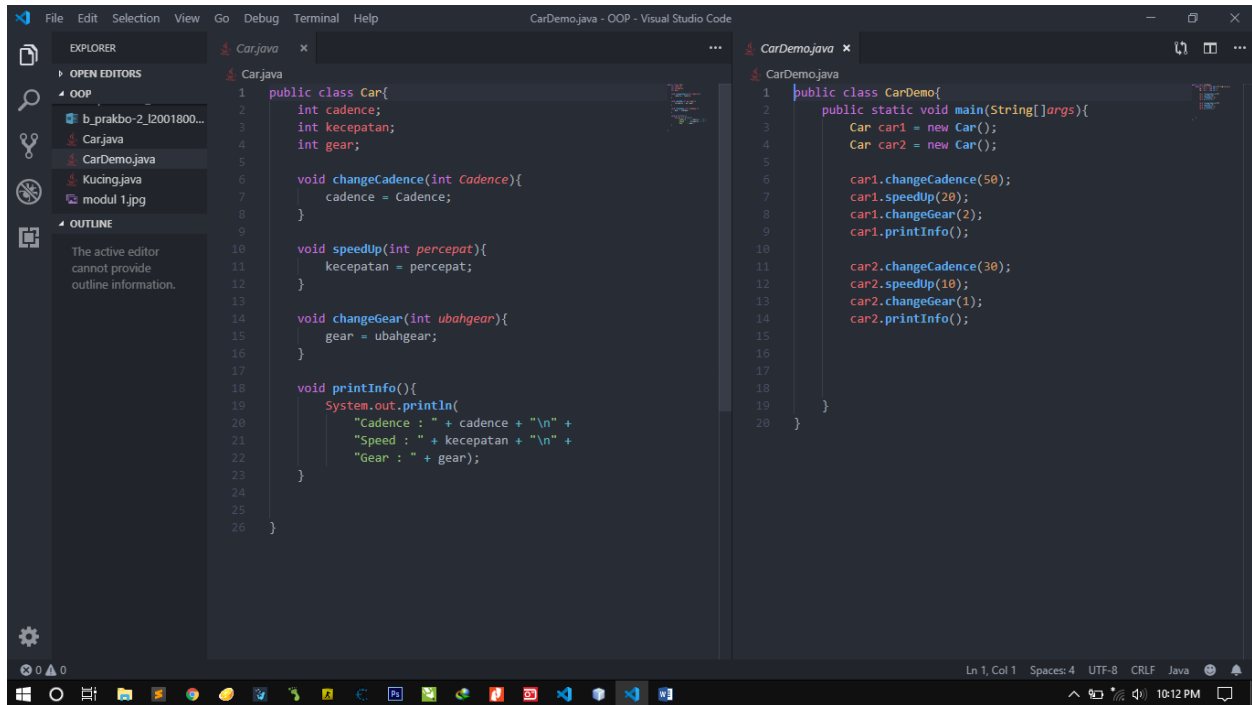
Warna Roti : Coklat
Rasa Roti : Coklat
Berat Roti : 30gr
Harga Roti : Rp 8000.0

E:\Tugaz Alif\OOP>
```

3. Gambar class diagram dari class RotiDemo

RotiDemo
#nama : String #rasa : String #berat : integer #harga : integer
#beriWarna() #beriRasa() #timbangBerat() #hargaJual()

4. Membuat satu class baru yang bisa digunakan sebagai template/blueprint dari class CarDemo, tidak memiliki fungsi main



```
Car.java
1 public class Car{
2     int cadence;
3     int kecepatan;
4     int gear;
5
6     void changeCadence(int Cadence){
7         cadence = Cadence;
8     }
9
10    void speedUp(int percepat){
11        kecepatan = percepat;
12    }
13
14    void changeGear(int ubahgear){
15        gear = ubahgear;
16    }
17
18    void printInfo(){
19        System.out.println(
20            "Cadence : " + cadence + "\n" +
21            "Speed : " + kecepatan + "\n" +
22            "Gear : " + gear);
23    }
24
25 }
26 }
```

```
CarDemo.java
1 public class CarDemo{
2     public static void main(String[] args){
3         Car car1 = new Car();
4         Car car2 = new Car();
5
6         car1.changeCadence(50);
7         car1.speedUp(20);
8         car1.changeGear(2);
9         car1.printInfo();
10
11        car2.changeCadence(30);
12        car2.speedUp(10);
13        car2.changeGear(1);
14        car2.printInfo();
15    }
16 }
17
18
19
20 }
```

```
Command Prompt
Microsoft Windows [Version 10.0.17134.1000]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\ASUS>E:

E:\>cd Tugaz Alif\OOP

E:\Tugaz Alif\OOP>javac Car.java

E:\Tugaz Alif\OOP>javac CarDemo.java

E:\Tugaz Alif\OOP>java CarDemo
Cadence : 50
Speed : 20
Gear : 2
Cadence : 30
Speed : 10
Gear : 1

E:\Tugaz Alif\OOP>
```

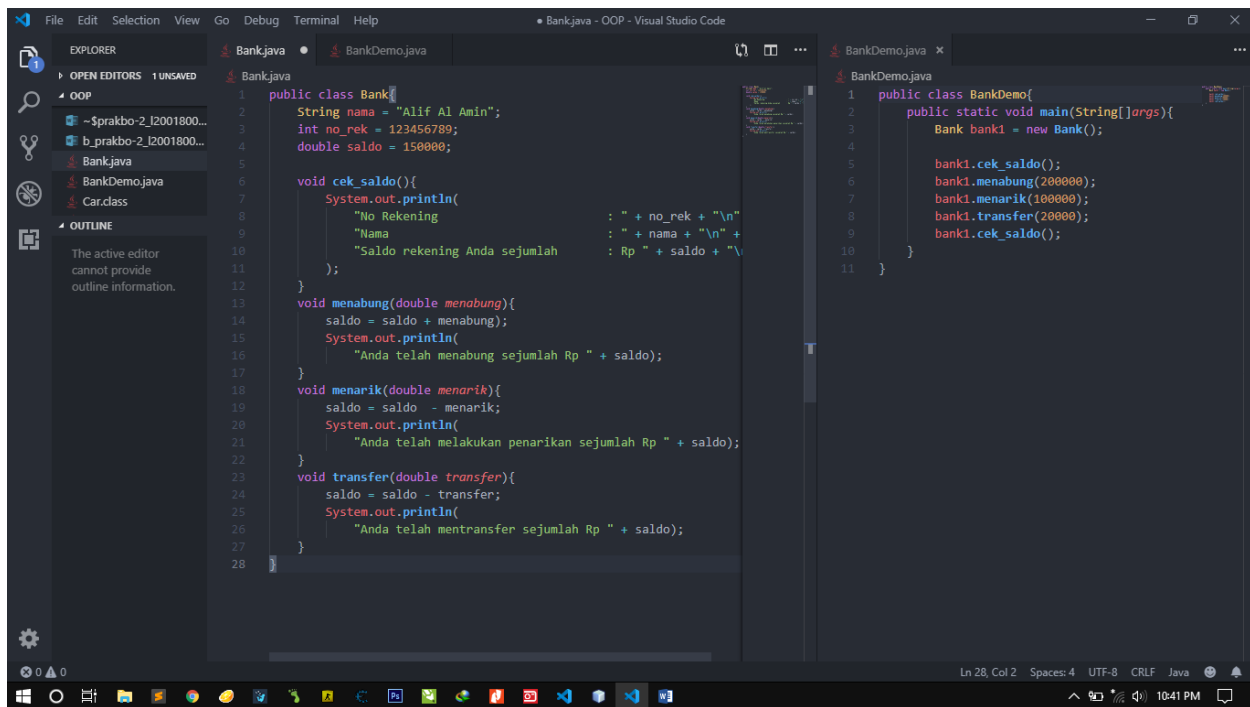
5. Membuat suatu class yang dapat merepresentasikan sifat-sifat dari object Kucing

```
File Edit Selection View Go Debug Terminal Help
Kucing.java - OOP - Visual Studio Code

EXPLORER
OPEN EDITORS 1 UNSAVED
OOP
  CarDemo.java
  Kucing.java
  modul 1.jpg
  MODUL-1.docx
  MODUL.docx
  Program.java
OUTLINE
The active editor cannot provide outline information.

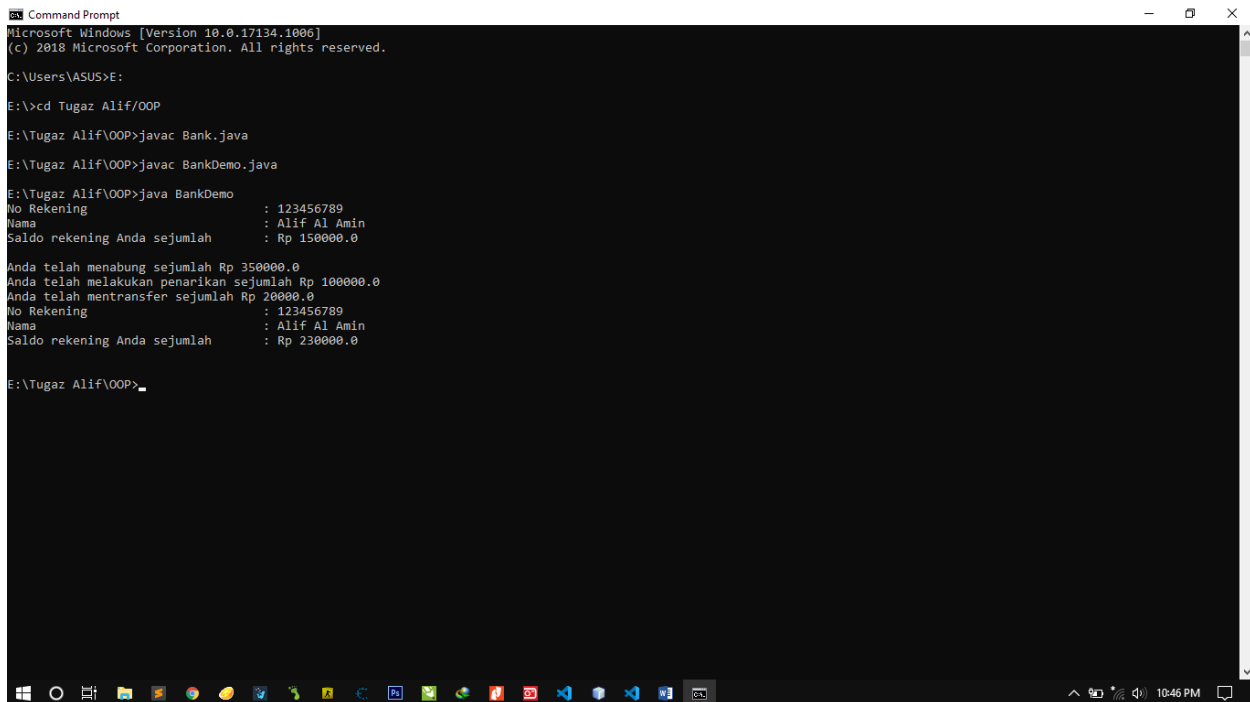
1 public class Kucing{
2     String warnabulu;
3     int umur;
4
5     Kucing kucing1 = new Kucing();
6     void warnabulu(String Warnabulu){
7         warnabulu = Warnabulu;
8     }
9     void Umur(int Usia){
10        umur = Usia;
11    }
12
13 }
```

6. Bank dan BankDemo



```
Bank.java
1 public class Bank{
2     String nama = "Alif Al Amin";
3     int no_rek = 123456789;
4     double saldo = 150000;
5
6     void cek_saldo(){
7         System.out.println(
8             "No Rekening          : " + no_rek + "\n"
9             "Nama                  : " + nama + "\n" +
10            "Saldo rekening Anda sejumlah   : Rp " + saldo + "\n"
11        );
12    }
13    void menabung(double menabung){
14        saldo = saldo + menabung;
15        System.out.println(
16            "Anda telah menabung sejumlah Rp " + saldo);
17    }
18    void menarik(double menarik){
19        saldo = saldo - menarik;
20        System.out.println(
21            "Anda telah melakukan penarikan sejumlah Rp " + saldo);
22    }
23    void transfer(double transfer){
24        saldo = saldo - transfer;
25        System.out.println(
26            "Anda telah mentransfer sejumlah Rp " + saldo);
27    }
28 }
```

```
BankDemo.java
1 public class BankDemo{
2     public static void main(String[] args){
3         Bank bank1 = new Bank();
4
5         bank1.cek_saldo();
6         bank1.menabung(200000);
7         bank1.menarik(100000);
8         bank1.transfer(200000);
9         bank1.cek_saldo();
10    }
11 }
```



```
Microsoft Windows [Version 10.0.17134.1006]
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C:\Users\ASUS>E:

E:\>cd Tugaz Alif\OOP

E:\Tugaz Alif\OOP>javac Bank.java

E:\Tugaz Alif\OOP>javac BankDemo.java

E:\Tugaz Alif\OOP>java BankDemo

No Rekening          : 123456789
Nama                  : Alif Al Amin
Saldo rekening Anda sejumlah   : Rp 150000.0

Anda telah menabung sejumlah Rp 350000.0
Anda telah melakukan penarikan sejumlah Rp 100000.0
Anda telah mentransfer sejumlah Rp 20000.0
No Rekening          : 123456789
Nama                  : Alif Al Amin
Saldo rekening Anda sejumlah   : Rp 230000.0

E:\Tugaz Alif\OOP>
```

7. Daftar variable dan fungsi/method yang dimiliki oleh Class String

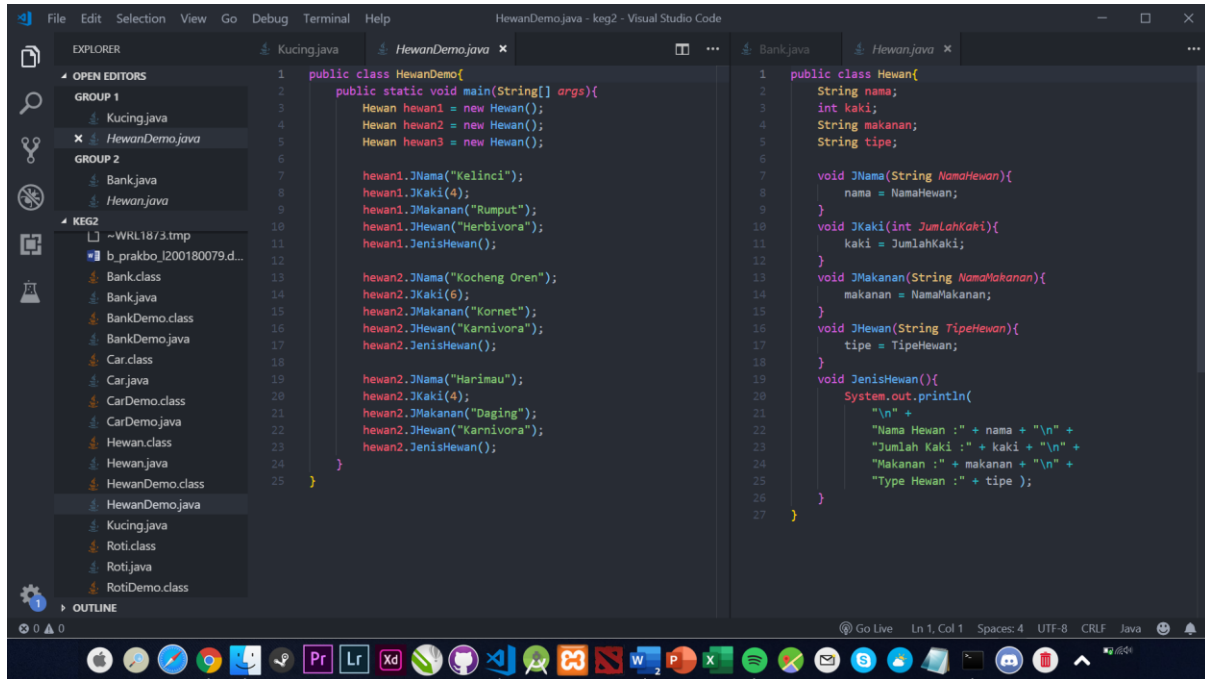
- String dataString = "Data didalam String"
- codePointAt(int) = mengembalikan code ASCII dari sebuah char yang di ambil dari String yang bersangkutan
- charAt(int) = mengembalikan Karakter yang ada di sebuah string bersangkutan sesuai dengan index

yang di masukkan.

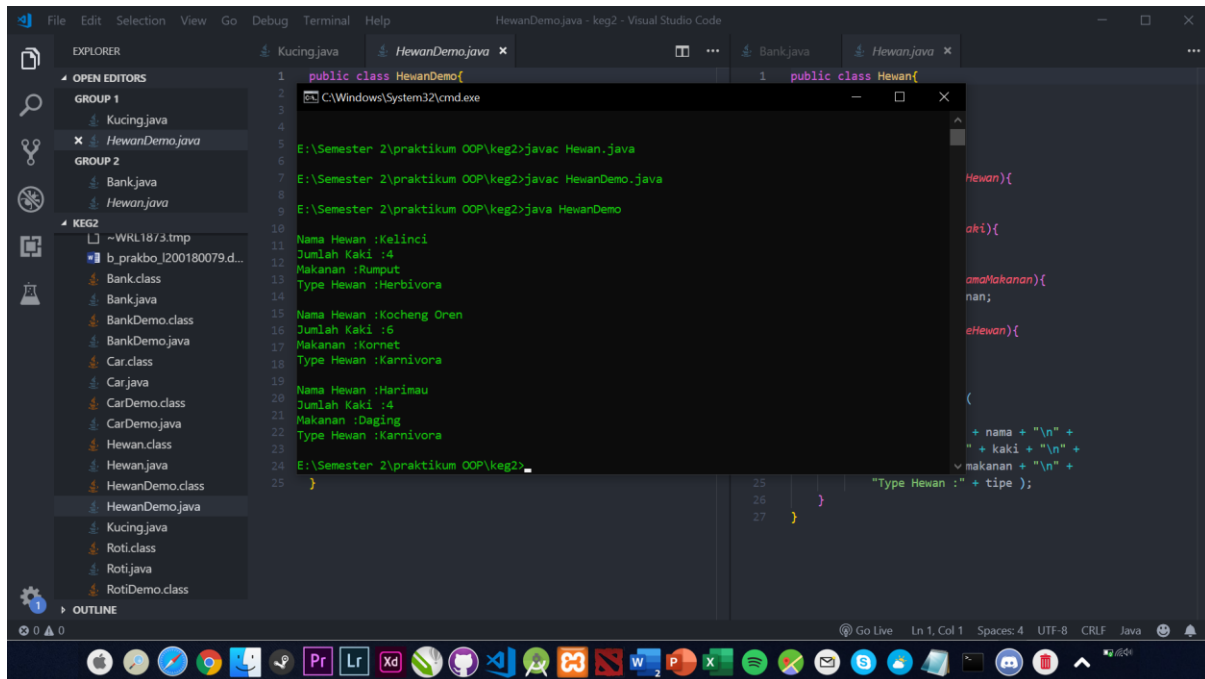
d. `codePointBefore(int)` = mengembalikan code ASCII dari karakter yang di ambil dari sebuah String

Tambahan

Pekerjaan Rumah



```
1 public class HewanDemo{
2     public static void main(String[] args){
3         Hewan hewan1 = new Hewan();
4         Hewan hewan2 = new Hewan();
5         Hewan hewan3 = new Hewan();
6
7         hewan1.JNama("Kelinci");
8         hewan1.JKaki(4);
9         hewan1.JMakanan("Rumput");
10        hewan1.JHewan("Herbivora");
11        hewan1.JjenisHewan();
12
13        hewan2.JNama("Kocheng Oren");
14        hewan2.JKaki(6);
15        hewan2.JMakanan("Kornet");
16        hewan2.JHewan("Karnivora");
17        hewan2.JjenisHewan();
18
19        hewan2.JNama("Harimau");
20        hewan2.JKaki(4);
21        hewan2.JMakanan("Daging");
22        hewan2.JHewan("Karnivora");
23        hewan2.JjenisHewan();
24    }
25 }
```



```
1 public class HewanDemo{
2     public static void main(String[] args){
3         Hewan hewan1 = new Hewan();
4         Hewan hewan2 = new Hewan();
5         Hewan hewan3 = new Hewan();
6
7         hewan1.JNama("Kelinci");
8         hewan1.JKaki(4);
9         hewan1.JMakanan("Rumput");
10        hewan1.JHewan("Herbivora");
11        hewan1.JjenisHewan();
12
13        hewan2.JNama("Kocheng Oren");
14        hewan2.JKaki(6);
15        hewan2.JMakanan("Kornet");
16        hewan2.JHewan("Karnivora");
17        hewan2.JjenisHewan();
18
19        hewan2.JNama("Harimau");
20        hewan2.JKaki(4);
21        hewan2.JMakanan("Daging");
22        hewan2.JHewan("Karnivora");
23        hewan2.JjenisHewan();
24    }
25 }
```

```
1 public class Hewan{
2     String nama;
3     int kaki;
4     String makanan;
5     String tipe;
6
7     void JNama(String NamaHewan){
8         nama = NamaHewan;
9     }
10    void JKaki(int JumlahKaki){
11        kaki = JumlahKaki;
12    }
13    void JMakanan(String NamaMakanan){
14        makanan = NamaMakanan;
15    }
16    void JHewan(String TipeHewan){
17        tipe = TipeHewan;
18    }
19    void JjenisHewan(){
20        System.out.println(
21            "\n" +
22            "Nama Hewan : " + nama + "\n" +
23            "Jumlah Kaki : " + kaki + "\n" +
24            "Makanan : " + makanan + "\n" +
25            "Type Hewan : " + tipe );
26    }
27 }
```

```
E:\Semester 2\praktikum OOP\keg2>javac Hewan.java
E:\Semester 2\praktikum OOP\keg2>javac HewanDemo.java
E:\Semester 2\praktikum OOP\keg2>java HewanDemo
Nama Hewan :Kelinci
Jumlah Kaki :4
Makanan :Rumput
Type Hewan :Herbivora
Nama Hewan :Kocheng Oren
Jumlah Kaki :6
Makanan :Kornet
Type Hewan :Karnivora
Nama Hewan :Harimau
Jumlah Kaki :4
Makanan :Daging
Type Hewan :Karnivora
```

This screenshot shows the Visual Studio Code interface with two Java files open. The Explorer sidebar on the left shows a project structure with folders 'GROUP 1' and 'GROUP 2', and various Java files including 'Kucing.java', 'Dosen.java', 'Mahasiswa.java', 'Karyawan.java', and several 'Bank', 'Car', and 'Hewan' demo files. The main editor area displays the code for 'Dosen.java' and 'Mahasiswa.java' side-by-side.

```
1 public class Dosen{
2     String nama;
3     int nik;
4     String pendidikan;
5     Date tgllahir;
6
7     void tampilkanNama(String name){
8         nama = name;
9     }
10
11    void tampilkanNik(int nik){
12        this.nik = nik;
13    }
14
15    void tampilkanTglLahir(Date tgl){
16        tgllahir = tgl;
17    }
18 }
19
```

```
1 public class Mahasiswa{
2     String nama;
3     String alamat;
4     int nim;
5     int semester;
6
7     void tampilkanNama(String name){
8         nama = name;
9     }
10
11    void tampilkanAlamat(String almt){
12        alamat = almt;
13    }
14
15    void tampilkanNim(int Nim){
16        nim = Nim;
17    }
18
19    void tampilkanSemester(int smtr){
20        semester = smtr;
21    }
22 }
```

This screenshot shows the Visual Studio Code interface with the 'Karyawan.java' file open. The Explorer sidebar on the left shows the same project structure as the first screenshot, with 'Karyawan.java' now selected. The main editor area displays the code for 'Karyawan.java'.

```
1 public class Karyawan{
2     String nama;
3     String alamat;
4     String jabatan;
5     int gaji;
6
7     void tampilkanNama(String name){
8         nama = name;
9     }
10
11    void tampilkanAlamat(String almt){
12        alamat = almt;
13    }
14
15    void tampilkanJabatan(String jbtn){
16        jabatan = jbtn;
17    }
18
19    void tampilkanGaji(int gaji){
20        gaji = gaji;
21    }
22 }
```

