

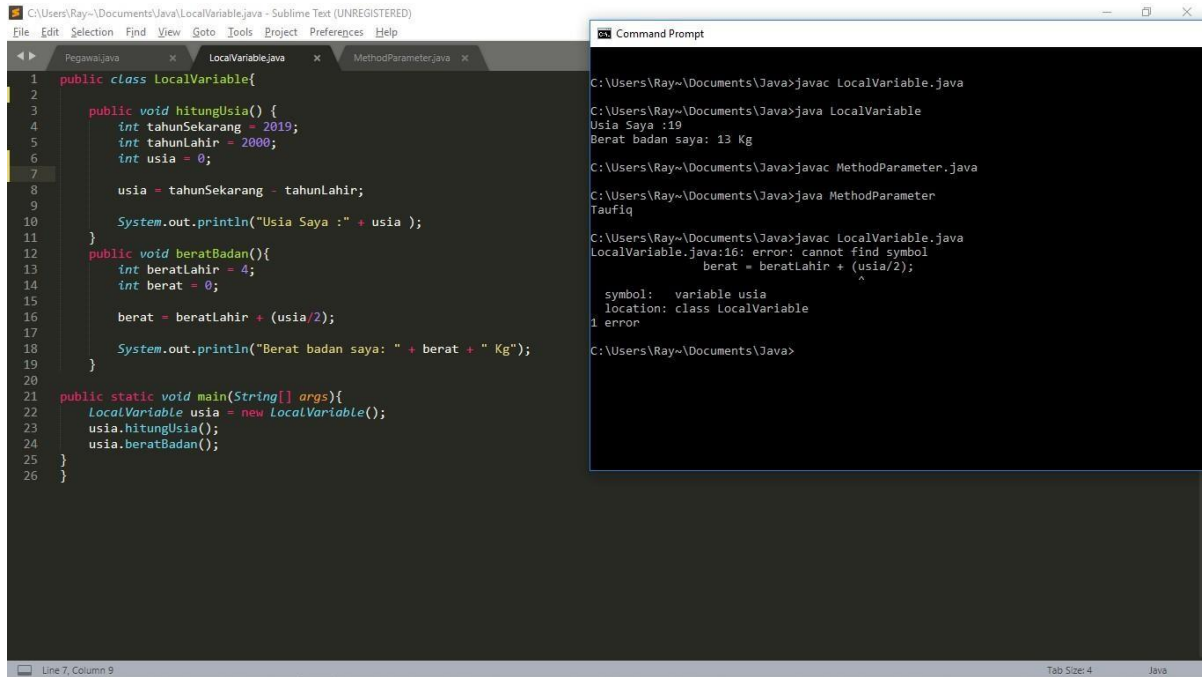
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## MODUL 3

### Latihan 1

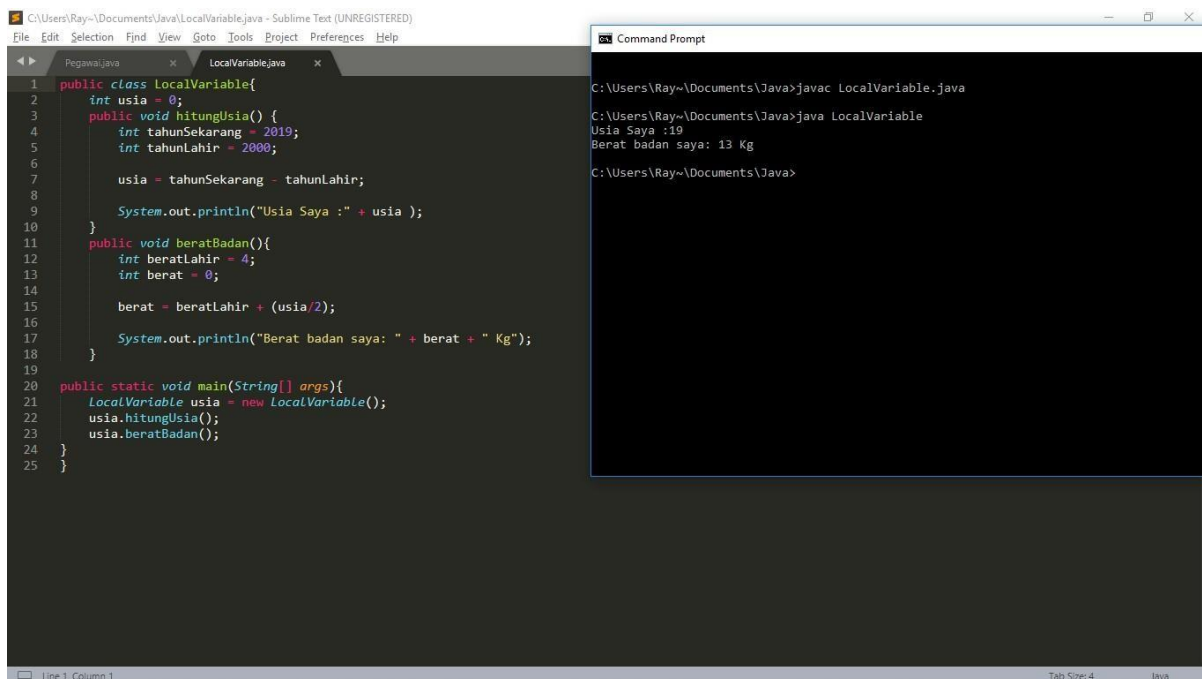


The screenshot shows a Sublime Text editor with a Java file named `LocalVariable.java`. The code defines a class `LocalVariable` with two methods: `hitungUsia()` and `beratBadan()`. The `hitungUsia()` method calculates the current age based on birth year and current year. The `beratBadan()` method calculates weight based on birth weight and current age. The `main` method creates an instance of `LocalVariable` and calls both methods. The Command Prompt shows the output of the compilation and execution. The first two commands (`javac LocalVariable.java` and `java LocalVariable`) execute successfully, displaying the age and weight. The third command (`javac MethodParameter.java`) also executes successfully. The fourth command (`java MethodParameter Taufiq`) also executes successfully. The fifth command (`javac LocalVariable.java`) results in a compilation error: `LocalVariable.java:16: error: cannot find symbol berat = beratLahir + (usia/2);`. The error message indicates that the variable `usia` cannot be found in the class `LocalVariable`.

```
1 public class LocalVariable{
2
3     public void hitungUsia() {
4         int tahunSekarang = 2019;
5         int tahunLahir = 2000;
6         int usia = 0;
7
8         usia = tahunSekarang - tahunLahir;
9
10        System.out.println("Usia Saya : " + usia );
11    }
12    public void beratBadan(){
13        int beratLahir = 4;
14        int berat = 0;
15
16        berat = beratLahir + (usia/2);
17
18        System.out.println("Berat badan saya: " + berat + " Kg");
19    }
20
21    public static void main(String[] args){
22        LocalVariable usia = new LocalVariable();
23        usia.hitungUsia();
24        usia.beratBadan();
25    }
26 }
```

```
C:\Users\Ray~\Documents\Java>javac LocalVariable.java
C:\Users\Ray~\Documents\Java>java LocalVariable
Usia Saya :19
Berat badan saya: 13 Kg
C:\Users\Ray~\Documents\Java>javac MethodParameter.java
C:\Users\Ray~\Documents\Java>java MethodParameter
Taufiq
C:\Users\Ray~\Documents\Java>javac LocalVariable.java
LocalVariable.java:16: error: cannot find symbol
    berat = beratLahir + (usia/2);
                        ^
symbol:   variable usia
location: class LocalVariable
1 error
C:\Users\Ray~\Documents\Java>
```

Tidak bisa berjalan karena local variable hanya dapat digunakan pada method tersebut saja.

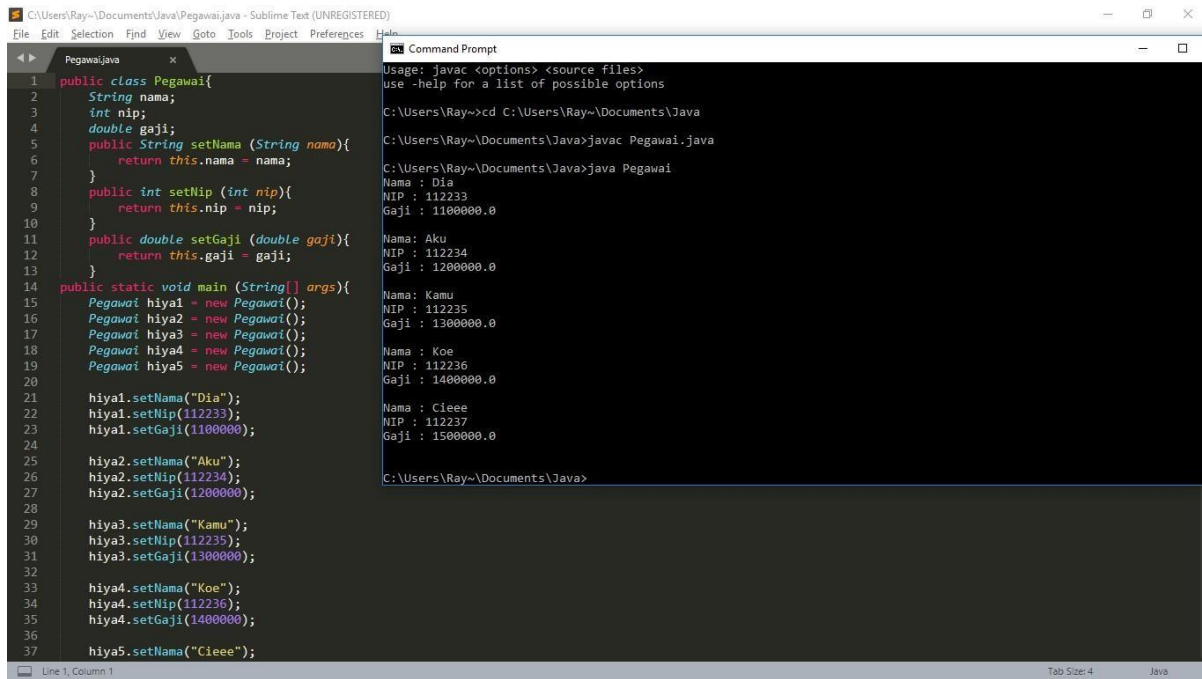


The screenshot shows the same Sublime Text editor with the `LocalVariable.java` file. The code is identical to the previous screenshot. The Command Prompt shows the output of the compilation and execution. The first two commands (`javac LocalVariable.java` and `java LocalVariable`) execute successfully, displaying the age and weight. The third command (`javac MethodParameter.java`) also executes successfully. The fourth command (`java MethodParameter Taufiq`) also executes successfully. The fifth command (`javac LocalVariable.java`) executes successfully without any errors. The output of the execution is the same as the previous screenshot.

```
1 public class LocalVariable{
2     int usia = 0;
3     public void hitungUsia() {
4         int tahunSekarang = 2019;
5         int tahunLahir = 2000;
6
7         usia = tahunSekarang - tahunLahir;
8
9         System.out.println("Usia Saya : " + usia );
10    }
11    public void beratBadan(){
12        int beratLahir = 4;
13        int berat = 0;
14
15        berat = beratLahir + (usia/2);
16
17        System.out.println("Berat badan saya: " + berat + " Kg");
18    }
19
20    public static void main(String[] args){
21        LocalVariable usia = new LocalVariable();
22        usia.hitungUsia();
23        usia.beratBadan();
24    }
25 }
```

```
C:\Users\Ray~\Documents\Java>javac LocalVariable.java
C:\Users\Ray~\Documents\Java>java LocalVariable
Usia Saya :19
Berat badan saya: 13 Kg
C:\Users\Ray~\Documents\Java>
```

## Latihan 3



The screenshot shows a Java IDE with a file named `Pegawai.java` and a Command Prompt window. The Java code defines a `Pegawai` class with attributes `nama`, `nip`, and `gaji`, and methods for setting these attributes and a `main` method that creates five `Pegawai` objects and sets their values.

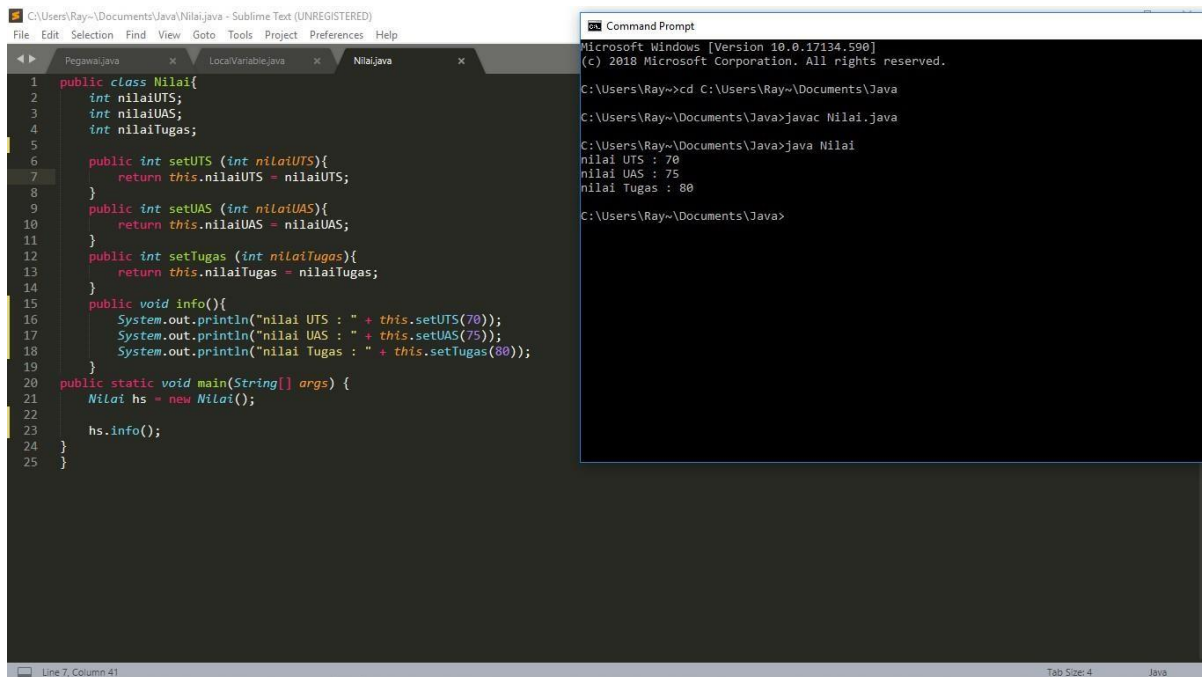
```
1 public class Pegawai{
2     String nama;
3     int nip;
4     double gaji;
5     public String setNama (String nama){
6         return this.nama = nama;
7     }
8     public int setNip (int nip){
9         return this.nip = nip;
10    }
11    public double setGaji (double gaji){
12        return this.gaji = gaji;
13    }
14    public static void main (String[] args){
15        Pegawai hiya1 = new Pegawai();
16        Pegawai hiya2 = new Pegawai();
17        Pegawai hiya3 = new Pegawai();
18        Pegawai hiya4 = new Pegawai();
19        Pegawai hiya5 = new Pegawai();
20
21        hiya1.setNama("Dia");
22        hiya1.setNip(112233);
23        hiya1.setGaji(1100000);
24
25        hiya2.setNama("Aku");
26        hiya2.setNip(112234);
27        hiya2.setGaji(1200000);
28
29        hiya3.setNama("Kamu");
30        hiya3.setNip(112235);
31        hiya3.setGaji(1300000);
32
33        hiya4.setNama("Koe");
34        hiya4.setNip(112236);
35        hiya4.setGaji(1400000);
36
37        hiya5.setNama("Cieee");
```

The Command Prompt shows the execution of the program, displaying the output for each `Pegawai` object:

```
Usage: javac <options> <source files>
use -help for a list of possible options

C:\Users\Ray~\Documents\Java>cd C:\Users\Ray~\Documents\Java
C:\Users\Ray~\Documents\Java>javac Pegawai.java
C:\Users\Ray~\Documents\Java>java Pegawai
Nama : Dia
NIP : 112233
Gaji : 1100000.0
Nama : Aku
NIP : 112234
Gaji : 1200000.0
Nama : Kamu
NIP : 112235
Gaji : 1300000.0
Nama : Koe
NIP : 112236
Gaji : 1400000.0
Nama : Cieee
NIP : 112237
Gaji : 1500000.0
C:\Users\Ray~\Documents\Java>
```

## Pekerjaan rumah 1



The screenshot shows a Java IDE with a file named `Nilai.java` and a Command Prompt window. The Java code defines a `Nilai` class with attributes `nilaiUTS`, `nilaiUAS`, and `nilaiTugas`, and methods for setting these attributes and an `info` method that prints the values.

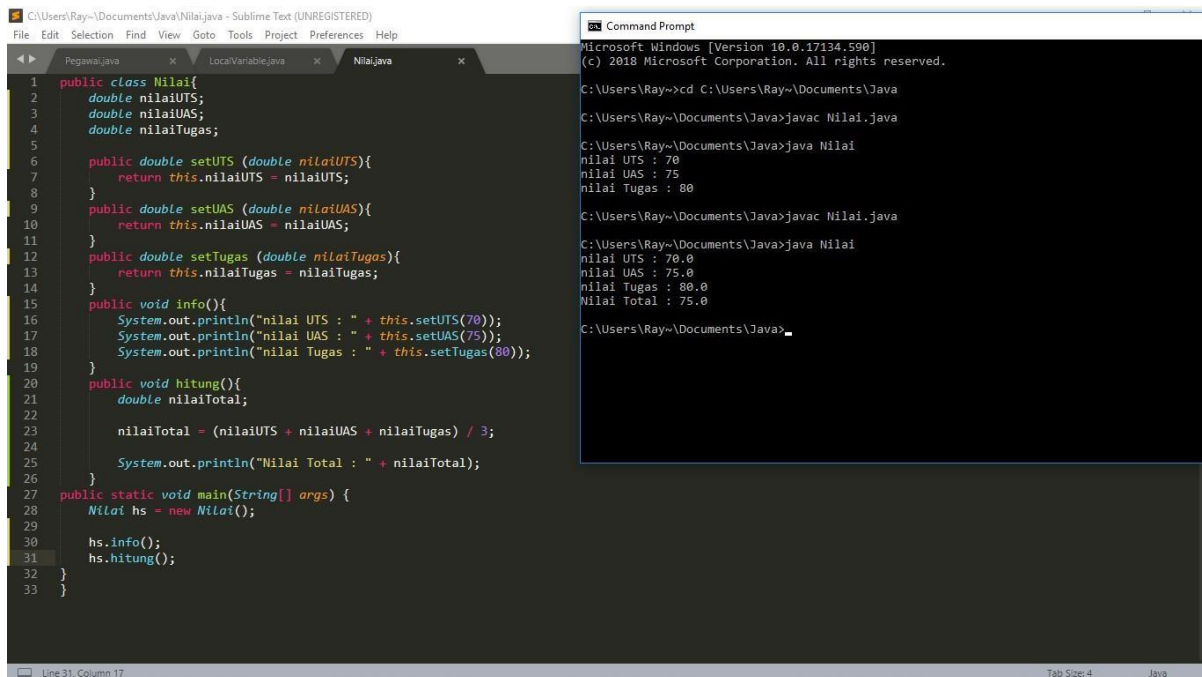
```
1 public class Nilai{
2     int nilaiUTS;
3     int nilaiUAS;
4     int nilaiTugas;
5
6     public int setUTS (int nilaiUTS){
7         return this.nilaiUTS = nilaiUTS;
8     }
9     public int setUAS (int nilaiUAS){
10        return this.nilaiUAS = nilaiUAS;
11    }
12    public int setTugas (int nilaiTugas){
13        return this.nilaiTugas = nilaiTugas;
14    }
15    public void info(){
16        System.out.println("nilai UTS : " + this.setUTS(70));
17        System.out.println("nilai UAS : " + this.setUAS(75));
18        System.out.println("nilai Tugas : " + this.setTugas(80));
19    }
20    public static void main(String[] args) {
21        Nilai hs = new Nilai();
22
23        hs.info();
24    }
25 }
```

The Command Prompt shows the execution of the program, displaying the output of the `info` method:

```
Microsoft Windows [Version 10.0.17134.590]
(c) 2018 Microsoft Corporation. All rights reserved.

C:\Users\Ray~>cd C:\Users\Ray~\Documents\Java
C:\Users\Ray~\Documents\Java>javac Nilai.java
C:\Users\Ray~\Documents\Java>java Nilai
nilai UTS : 70
nilai UAS : 75
nilai Tugas : 80
C:\Users\Ray~\Documents\Java>
```

## Pekerjaan rumah 2



The screenshot displays a Java IDE window titled "C:\Users\Ray~\Documents\Java\Nilai.java - Sublime Text (UNREGISTERED)". The code defines a class `Nilai` with attributes `nilaiUTS`, `nilaiUAS`, and `nilaiTugas`. It includes methods for setting these values, an `info()` method to display them, and a `hitung()` method to calculate the average. The `main` method creates an instance of `Nilai` and calls `info()` and `hitung()`.

```
1 public class Nilai{
2     double nilaiUTS;
3     double nilaiUAS;
4     double nilaiTugas;
5
6     public double setUTS (double nilaiUTS){
7         return this.nilaiUTS = nilaiUTS;
8     }
9     public double setUAS (double nilaiUAS){
10        return this.nilaiUAS = nilaiUAS;
11    }
12    public double setTugas (double nilaiTugas){
13        return this.nilaiTugas = nilaiTugas;
14    }
15    public void info(){
16        System.out.println("nilai UTS : " + this.setUTS(70));
17        System.out.println("nilai UAS : " + this.setUAS(75));
18        System.out.println("nilai Tugas : " + this.setTugas(80));
19    }
20    public void hitung(){
21        double nilaiTotal;
22
23        nilaiTotal = (nilaiUTS + nilaiUAS + nilaiTugas) / 3;
24
25        System.out.println("Nilai Total : " + nilaiTotal);
26    }
27    public static void main(String[] args) {
28        Nilai hs = new Nilai();
29
30        hs.info();
31        hs.hitung();
32    }
33 }
```

The Command Prompt window shows the execution of the program:

```
Microsoft Windows [Version 10.0.17134.590]
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C:\Users\Ray~>cd C:\Users\Ray~\Documents\Java
C:\Users\Ray~\Documents\Java>javac Nilai.java
C:\Users\Ray~\Documents\Java>java Nilai
nilai UTS : 70
nilai UAS : 75
nilai Tugas : 80
C:\Users\Ray~\Documents\Java>javac Nilai.java
C:\Users\Ray~\Documents\Java>java Nilai
nilai UTS : 70.0
nilai UAS : 75.0
nilai Tugas : 80.0
Nilai Total : 75.0
C:\Users\Ray~\Documents\Java>
```