Object Oriented Programming

Profil Dosen

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Perkuliahan

Pelaksanaan dan Tata tertib

Presensi minimal 75%

Kehadiran paling lambat 15 menit setelah kuliah dimulai

Tidak diperkenankan menggunakan kaos oblong dan sandal

Selama perkuliahan berlangsung, dilarang menggunakan ponsel

Selama perkuliahan berlangsung, dilarang makan dan minum di dalam kelas

Penilaian

*Presentasi Kategori*

Praktikum **30%**

UTS 35%

UAS 35%

Total 100%

Mahasiswa yang presensinya **kurang dari 75%,** *tidak bisa mengikuti UAS*

myProgram.java

Interpreter

My Program

Compiler

myProgram.class

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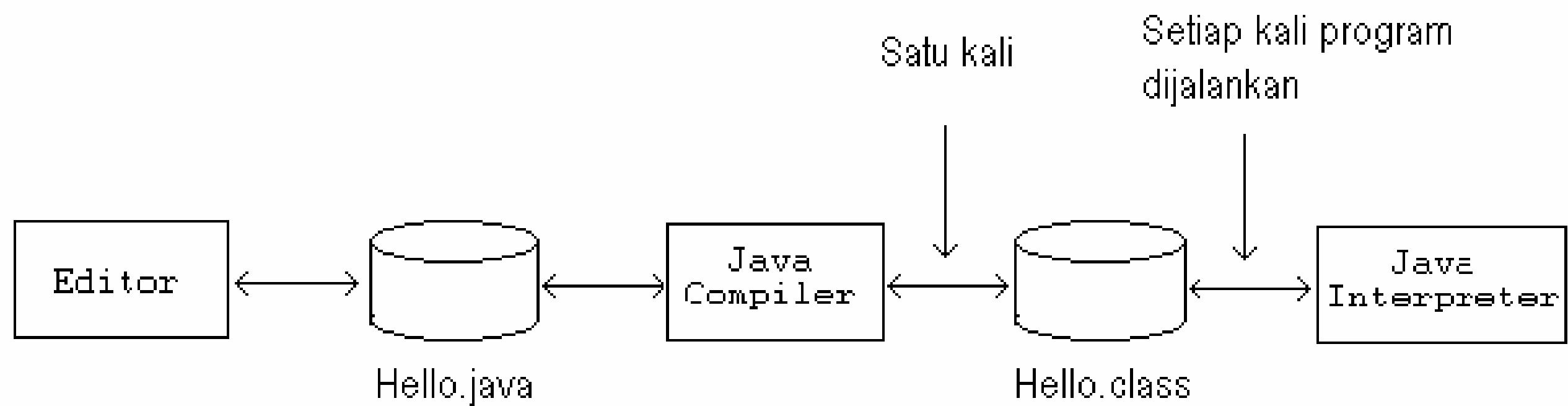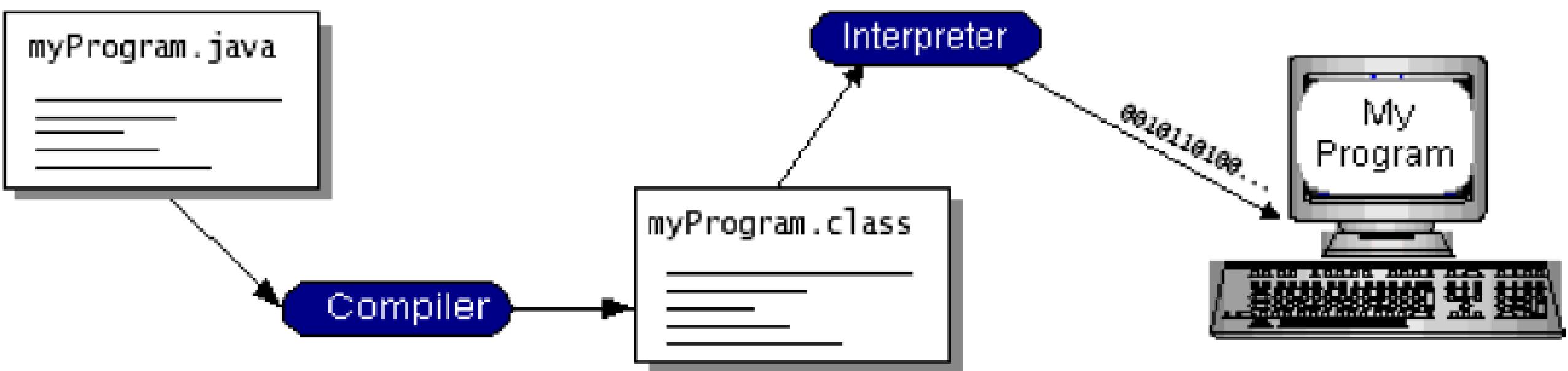
Java Program

```
class HelloWorldApp {
    public static void main(String[] args) {
        System.out.println("Hello World!");
    }
}
```

HelloWorldApp.java

Compiler

Interpreter   **Interpreter**   **Interpreter**

Hello World!

Hello World!

Hello World!

Win32   **Solaris**   **MacOS**
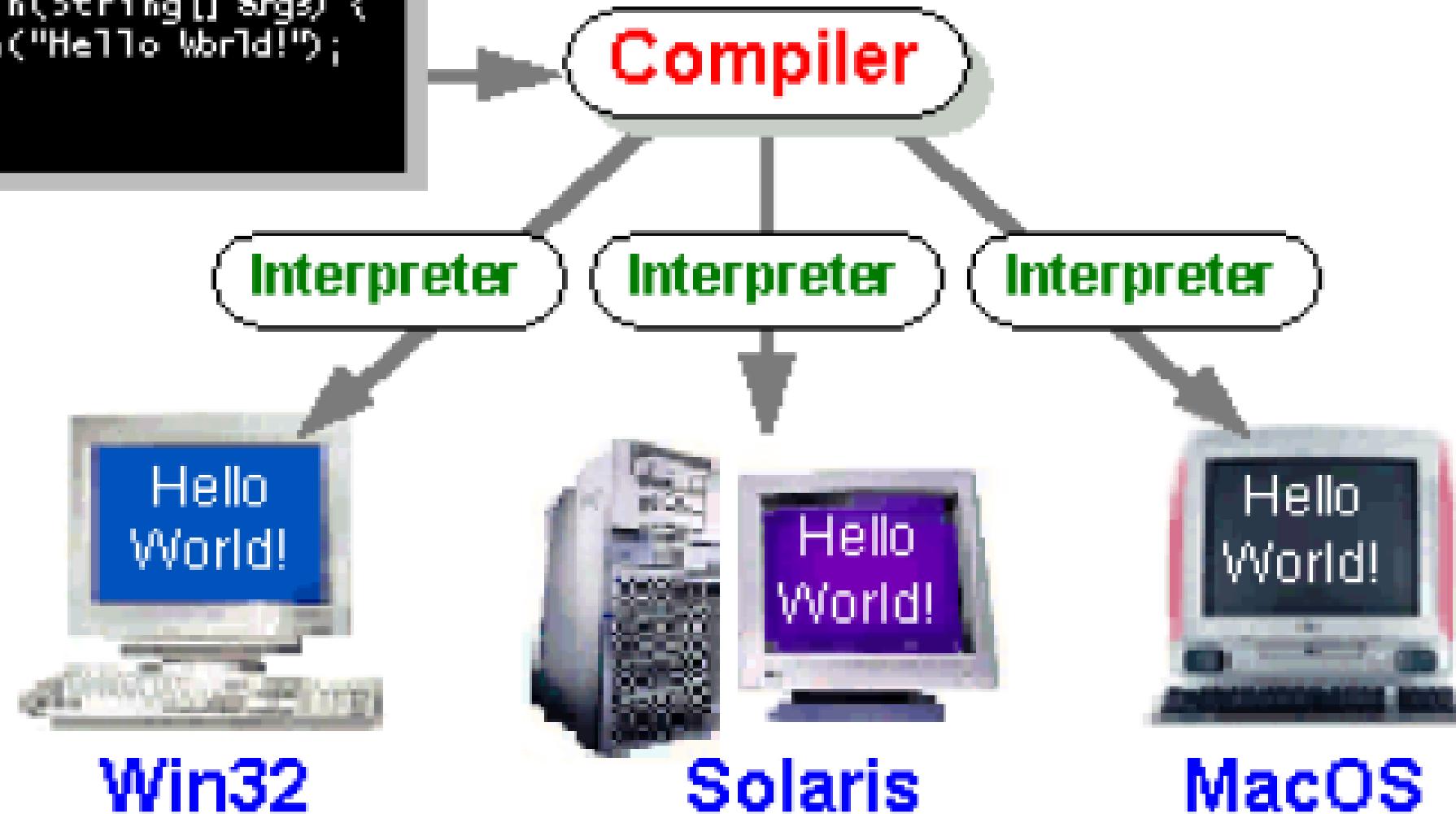
Statemen kontrol digunakan untuk mengatur jalannya alur program sesuai dengan yang kita inginkan

Jenis Statemen
-Pemilihan (Branching)
-Pengulangan (Looping)
-Peloncatan (jumping)
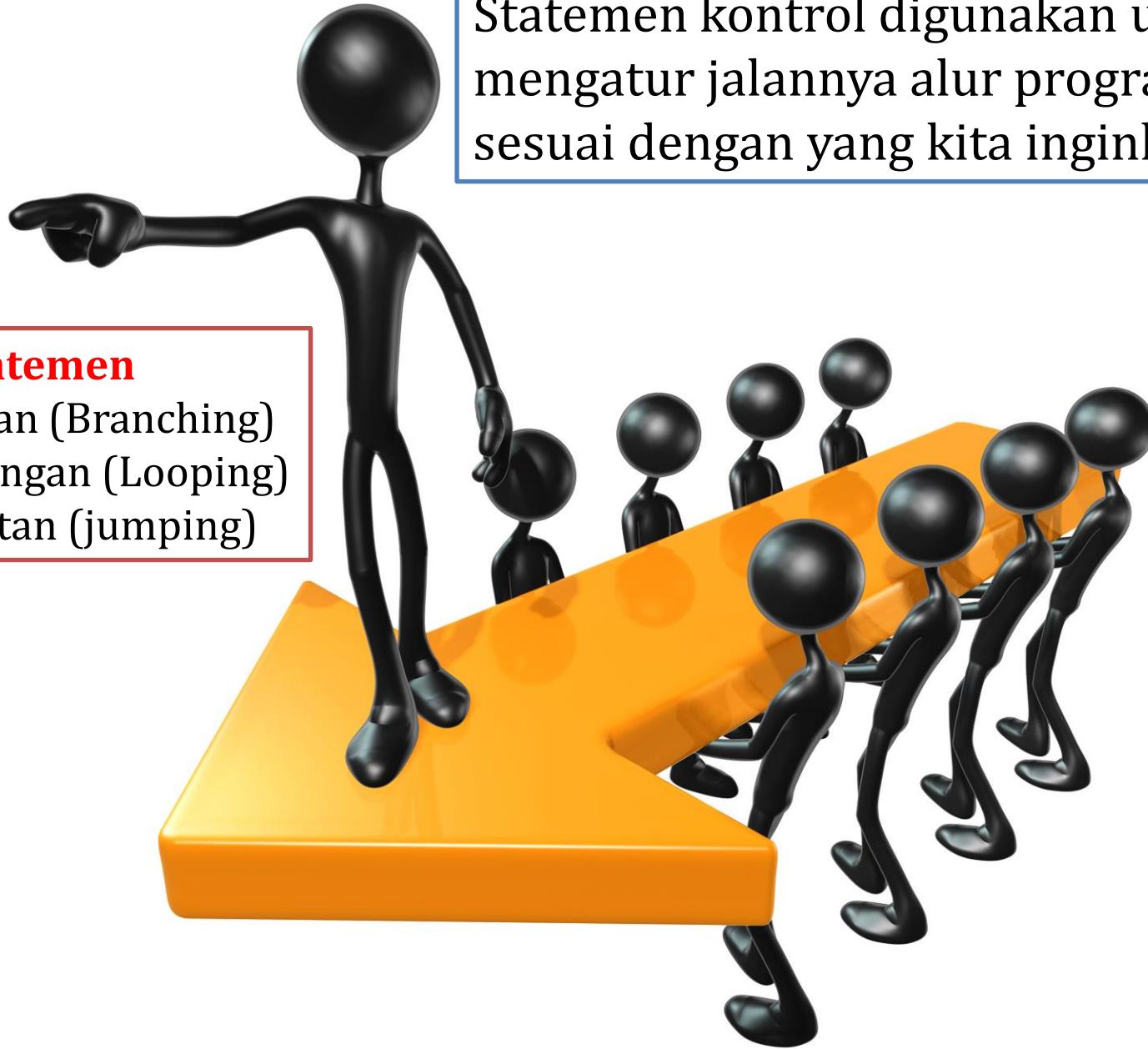
```java
public class DemoFor3 {
    public static void main (String [] args){
        int n = 5;
        int hasil = 0;
        for (int i = 1; i<=n; i++){
            hasil += i;
            if (i != n){
                System.out.print (i + " + ");
            }else {
                System.out.print (i + " = ");
            }
        }
        System.out.println (hasil);
    }
}
```

```
run:
1 + 2 + 3 + 4 + 5 = 15
BUILD SUCCESSFUL (total time: 0 seconds)
```

```java
public class DemoFor6 {
    public static void main (String [] args){
        int i,j;
        for (i=0, j=4; i<5; i++, j--){
            System.out.println ("Nilai i : " + i);
            System.out.println ("Nilai j : " + j);
            System.out.println ();
        }
    }
}
```

```
run:
Nilai i : 0
Nilai j : 4

Nilai i : 1
Nilai j : 3

Nilai i : 2
Nilai j : 2

Nilai i : 3
Nilai j : 1

Nilai i : 4
Nilai j : 0

BUILD SUCCESSFUL (total time: 0 seconds)
```

```java
public class DemoDoWhile {
    public static void main (String [] args){
            int bilangan = 5;
            int hasil = 1;
            System.out.print (bilangan + " ! = ");
            if (bilangan ==0){
                System.out.println (hasil);
                System.exit (1);
            }
            int i = bilangan;
            do {
                System.out.print (i);
                if (i!=1){
                    System.out.print (" X ");
                }else{
                    System.out.print (" = ");
                }
        hasil *=i;
        i--;
    }while (i>=1);
    System.out.println (hasil);
}
}
```

```
run:
5 ! = 5 X 4 X 3 X 2 X 1 = 120
BUILD SUCCESSFUL (total time: 0 seconds)
```

```
run:
1
2 4
3 6 9
4 8 12 16
5 10 15 20 25
BUILD SUCCESSFUL (total time: 0 seconds)
```

```java
public class DemoForBersarang {
    public static void main (String [] args){
        for (int i = 1; i<=5; i++){
            for (int j = 1; j<=i; j++){
                System.out.print (i*j + " ");
            }
            System.out.println ();
        }
    }
}
```

```java
public class DemoWhileBersarang {
    public static void main (String [] args){
        int i = 1, j;
        while (i<=5){
            j = 1;
            while (j<=i){
                System.out.print (i*j + " ");
                j++;
            }
            System.out.println ();
            i++;
        }
    }
}
```

```java
public class DemoDoWhileBersarang {
    public static void main (String [] args){
        int i = 1, j;
        do {
            j = 1;
            do {
                System.out.print (i*j + " ");
                j++;
            } while (j<=i);
            System.out.println ();
            i++;
        } while (i<=5);
    }
}
```

```java
public class DemoBreak1 {
    public static void main (String [] args){
        for (int i=0; i<10; i++){
        if (i == 5){
            break;
        }
        System.out.println ("Baris ke-" + i);
    }

        System.out.println ("Statemen setelah blok pengulangan");
}
}
```

```
run:
Baris ke-0
Baris ke-1
Baris ke-2
Baris ke-3
Baris ke-4
Statemen setelah blok pengulangan
BUILD SUCCESSFUL (total time: 0 seconds)
```

```java
public class DemoContinue {
    public static void main (String [] args){
        for (int i =0; i<10; i++){
            System.out.print (i + " ");
            if (i % 2 == 0){
                continue;
            }
            System.out.println ();
        }
    }
}
```

```
run:
0 1
2 3
4 5
6 7
8 9
BUILD SUCCESSFUL (total time: 0 seconds)
```

```java
public class DemoArray2D {
    public static void main (String [] args){
        int [][] duaD = new int [2][3];
        int k = 1;
        for (int i=0;i<2;i++){
            for (int j=0;j<3;j++){
                duaD [i][j] = k*10;
                System.out.print (duaD[i][j]);
                if (j<2) System.out.print (" ");
                k++;
            }

            System.out.println ();
        }
    }
}
```

```
run:
10 20 30
40 50 60
BUILD SUCCESSFUL (total time: 0 seconds)
```

```java
public class DemoModulus {
    public static void main (String [] args){
        int a = 11, b = 4;
        int c = a%b;
        double da = 13.75;
        double dc = da%b;
        System.out.println ("Sisa bagi " +a+ "/" +b+ " adalah" +c);
        System.out.println ("Sisa bagi " +da+ "/" +b+ " adalah" +dc);
    }
}
```

```
run:
Sisa bagi 11/4 adalah3
Sisa bagi 13.75/4 adalah1.75
BUILD SUCCESSFUL (total time: 0 seconds)
```

```java
public class DemoIncrement {
    public static void main (String []args){
        int a = 5;
        System.out.println("Pre-Increment");
        System.out.println("a\t: " +a);
        System.out.println ("++a\t: " + ++a);
        System.out.println("a\t: " +a);
        int b = 5;
        System.out.println("\nPost-Increment");
        System.out.println("b\t: " +b);
        System.out.println ("b++\t: " + b++);
        System.out.println("a\t: " +b);
    }
}
```

```
run:
Pre-Increment
a             :  5
++a           :  6
a             :  6


Post-Increment
b             :  5
b++           :  5
a             :  6
BUILD SUCCESSFUL (total time: 0 seconds)
```