

Nama : Ilha Maulana Zakiya
Kelas : 2 D Teknik Informatika
NIM : 200300049
Materi : Algoritma dan Struktur data 2

1. Nested Loop

```
package Nested Looping; // → Deklarasi Package
public class No2 { // → Beginn class
    public static void main (String [] args) { // Method main

        int x, y;

        for (x = 0; x <= 9; x++) {
            for (y = 0; y < x; y++) {
                System.out. print (x);
            }
            System.out. println();
        }
    }
}
```

Penjelasan :

- ◊ Deklarasi Package → Ada (package nested Looping)
- ◊ Import Library → Tidak ada
- ◊ Bagian class → Ada (Public class No2)
- ◊ Method main → Ada (public static void main (String [] args) {)
- ◊ Documentation Section → Tidak ada

Penjelasan Jalannya kode program

No	Penjelasan	Output
1.	$x = 0; x \leq 9 \rightarrow \text{True}$; lanjut ke looping dalam	
2.	$y = 0; 0 < 0 \rightarrow \text{False}$; stop ke looping dalam Print()	Enter Baris
3.	$x++$; $x = 0 + 1 = 1$; $x = 0 \leq 9$? True → lanjut Looping dalam	
4.	$y = 0; 0 < 1$? True → lanjut Print x	1
5.	$y++$; $y = 0 + 1 = 1$; $1 < 1$? False → stop Looping dalam Print()	

No	Pengelasan	Output
6.	$x++$; $x = 1+1 = 2$; $2 \leq 4$? True \rightarrow lanjut looping dalam	5
7.	$y = 0$; $0 < 2$? True \rightarrow Print x	2
8.	$y++$; $y = 0+1 = 1$; $1 < 2$? True \rightarrow Print x	22
9.	$y++$; $y = 1+1 = 2$; $2 < 2$? False \rightarrow Stop Looping dalam Print ()	Enter baris
10.	$x++$; $x = 2+1 = 3$; $3 < 4$? True \rightarrow lanjut looping dalam	3
11.	$y = 0$; $0 < 3$? True \rightarrow Print x	33
12.	$y++$; $y = 0+1 = 1$; $1 < 3$? True \rightarrow Print x	333
13.	$y++$; $y = 1+1 = 2$; $2 < 3$? True \rightarrow Print x	333
14.	$y++$; $y = 2+1 = 3$; $3 < 3$? False \rightarrow Stop Looping dalam Print ()	Enter baris
15.	$x++$; $x = 3+1 = 4$; $4 \leq 4$? True \rightarrow lanjut looping dalam	4
16.	$y = 0$; $0 < 4$? True \rightarrow Print x	44
17.	$y++$; $y = 0+1 = 1$; $1 < 4$? True \rightarrow Print x	444
18.	$y++$; $y = 1+1 = 2$; $2 < 4$? True \rightarrow Print x	4444
19.	$y++$; $y = 2+1 = 3$; $3 < 4$? True \rightarrow Print x	4444
20.	$y++$; $y = 3+1 = 4$; $4 < 4$? False \rightarrow Stop Looping dalam Print ()	Enter baris
21.	$x++$; $x = 4+1 = 5$; $5 \leq 4$? False \rightarrow Stop Looping dalam Print ()	Enter baris
	edd	
	Hasil = 1	
	22	
	333	
	4444	

2 Array menggunakan Looping

```
Public class arrayperulangan_3 {
```

```
    Public static void main (String args []) {
```

```
        String [] Siswa = {"Reinan", "Odena", "Geanno"}; // Panjang array 3
```

```
        for (int i = 0; i < Siswa.length; i++) {
```

```
            System.out.println ("indeks ke " + i + " = " + Siswa[i]);
```

```
        }
```

```
    }
```

No	Pengjelasan \rightarrow Siswa.length = 3	Output
1.	$i = 0$ $0 < 3$? True \rightarrow Print "Indeks ke " + i + " = " + Mahasiswa [i]	Reinan Reinan
2.	$i++$: $i = 0 + 1 = 1$; $1 < 3$? true \rightarrow Print "Indeks ke " + i + " = " + Mahasiswa [i]	Odenn
3.	$i++$: $i = 1 + 1 = 2$; $2 < 3$? true \rightarrow Print "Indeks ke " + i + " = " + Mahasiswa [i]	Gianno
4.	$i++$: $i = 2 + 1 = 3$; $3 < 3$? False \rightarrow Stop array looping	