Tugas Algoritma & Struktur Data II

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1. Nested Looping
   a. Deklarasi Package → Package Nested Loop (Ada)
   b. Import Library → Tidak Ada
   c. Bagian Class → Public class no 2 { (Ada)
   d. Dokumentation Section → Tidak Ada
   e. Method Main → Public static void main (String args []) { (Ada)

- Array menggunakan Looping
   a. Deklarasi Package → Tidak Ada
   b. Import Library → Tidak Ada
   c. Bagian Class → Public Class Array perulangan_3 (Ada)
   d. Dokumentation Section → // Panjang array_3 (Ada)
   e. Method Main → Public static void main (String args []) { (Ada)

2. Nested Loop

```
Package Nested Loop;
Public class no 2 {
    Public static void main (String [] args) {
    int x, y;
    for (x = 0; x <= 4; x++) {

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

}

}
```

Penjelasan	Output	Jawab
x = 0; x<=4 ? True → Lanjut Looping dalam		
y = 0; 0<0 ? False → Stop Looping dalam		i = 0;
Print ()	enter baris	i++;
x++; x = 0+1 = 1; x = 0<=4 ? True → Lanjut looping dalam		i++;
y = 0; 0<1 ? True → Print x	1	i++;
y++; y = 0+1 = 1; 1<1 ? False → Stop looping dalam		
Print ()		
x++; x = 1+1 = 2; 2<=4 ? True → lanjut looping dalam		
y = 0; 0<2 ? True → print x	2	
y++; y = 0+1 = 1 1<2 ? True → print x	22	
y++; y = 1+1 = 2; 2<2 ? False → Stop looping dalam		
Print ()	enter baris	
y++; y = 0+1 = 1; 1<3 → True → Print x		
y++; y = 1+1 = 2; 2<3 → True → Print x	3	
y++; y = 2+1 = 3; 3<3 → False → Stop Looping dalam	33	
Print ()	333	
x++; x = 3+1 = 4 4<4 ? True → lanjut looping dalam		
y = 0; 0<4 ? true → print x		
y++; y = 0+1 = 1; 1<4 ? True → Print x		
y++; y = 1+1 = 2; 2<4 ? True → Print x	4	
y++; y = 2+1 = 3; 3<4 ? True → Print x	44	
y++; y = 3+1 = 4; 4<4 ? True → Stop looping dalam	444	
Print ()	4444	
x++; x = 4+1 = 5 5<=4 ? False → Stop looping dalam		
Print ()	enter baris	
end		

Hasil = 1
2 2
3 3 3
4 4 4 4

3. Array menggunakan Looping

```
Public class array perulangan_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 ("Index ke "+i+" = " + mahasiswa[i]);
        }
    }
}
```

Jawab

Penjelaran	Output
i = 0; 0 < 3 → T; print Mahasiswa [0]	Rainan
i++; i = 0+1 = 1; 1 < 3 → T; print mahasiswa [1]	Adena
i++; i = 1+1 = 2; 2 < 3 → T; print mahasiswa [2]	Geanno
i++; i = 2+1 = 3; 3 < 3 → F; perulangan selesai	