

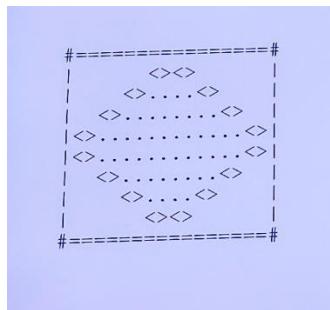
LAPORAN TUGAS
ALGORITMA PEMROGRAMAN
“PERULANGAN FOR”
DISUSUN OLEH:
NABIL FIKRI
2511533011
DOSEN PENGAMPU:
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Pada pekan5 ini, mahasiswa diberikan tugas kode program java dengan output sebagai berikut :



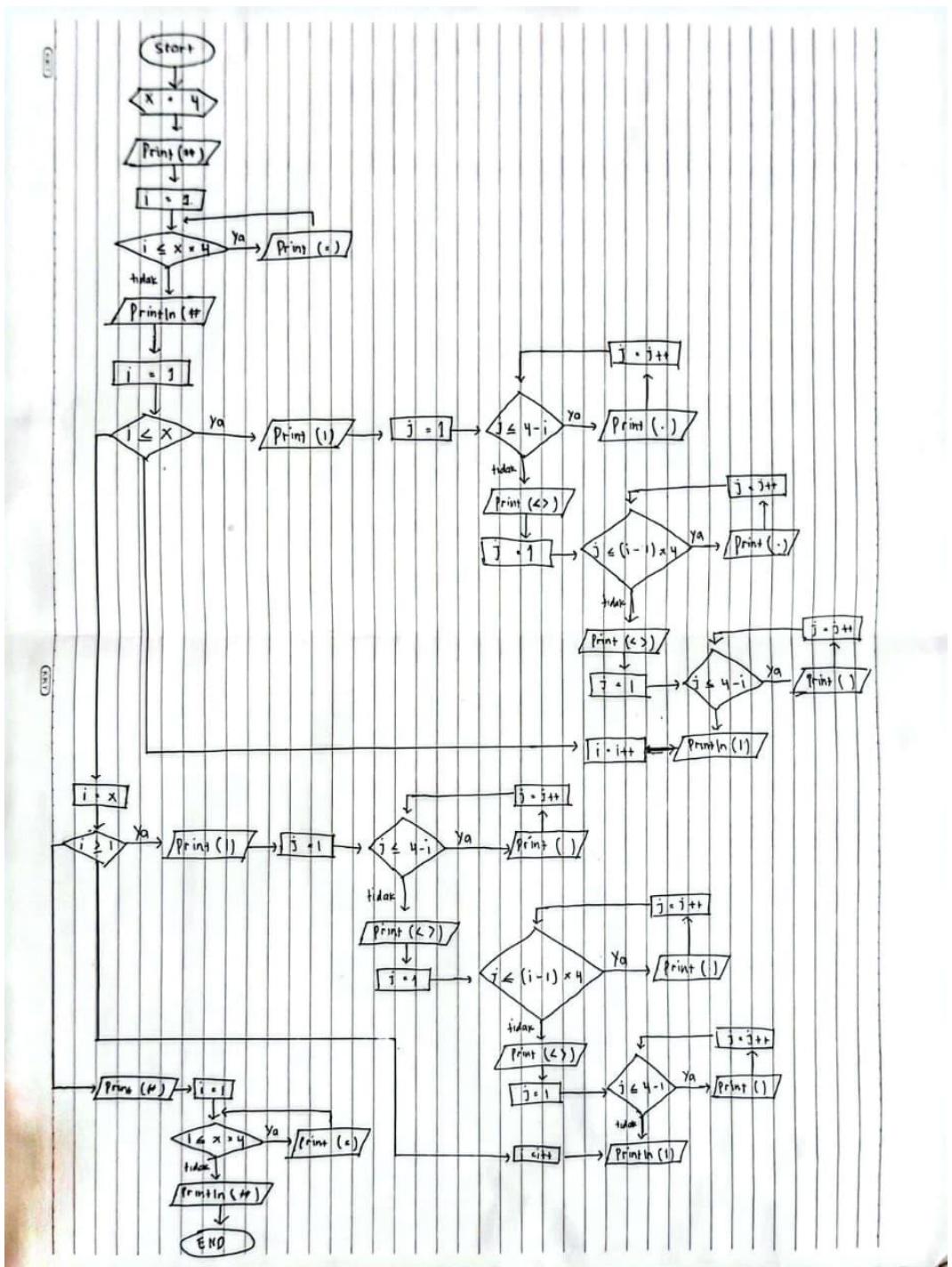
Beberapa tugas yang diminta :

1. Buatlah program java dengan menggunakan Perulangan *for* dan *nested for!*
2. Buatlah flowchart secara manual dengan ditulis tangan !
3. Buatlah Pseudocode program tersebut !

1. Kode Program Java

```
1 package pekan5_2511533011;
2
3 public class tugaspekan5 {
4
5     public static void main(String[] args) {
6         int x = 4;
7
8         System.out.print("#");
9         for ( int i= 1; i<=x*4; i++) {
10             System.out.print("=");
11         }
12         System.out.println("#");
13
14         for (int i= 1; i<=x; i++) {
15             System.out.print("|");
16             for ( int j=1; j<=4-i; j++) {
17                 System.out.print(" ");
18             }
19             System.out.print("<>");
20             for ( int j=1; j<=(i-1)*4; j++) {
21                 System.out.print(".");
22             }
23             System.out.print("<>");
24             for ( int j=1; j<= 4-i; j++) {
25                 System.out.print(" ");
26             }
27             System.out.println("|");
28         }
29
30         for (int i= x; i>=1; i--) {
31             System.out.print("|");
32             for ( int j=1; j<=4-i; j++) {
33                 System.out.print(" ");
34             }
35             System.out.print("<>");
36             for ( int j=1; j<=(i-1)*4; j++) {
37                 System.out.print(".");
38             }
39             System.out.print("<>");
40             for ( int j=1; j<= 4-i; j++) {
41                 System.out.print(" ");
42             }
43             System.out.println("|");
44         }
45
46         System.out.print("#");
47         for ( int i= 1; i<=x*4; i++) {
48             System.out.print("=");
49         }
50         System.out.println("#");
51
52     }
53 }
```

2. Flowchart



3. Pseudocode

Judul

Gambar menyerupai pola belah ketupat
{ Menghasilkan output seperti pola belah ketupat dengan menggunakan perulangan for}

Deklarasi

Int x, i, j : integer

Pseudocode

```
BEGIN
    SET x ← 4
    OUTPUT "#"
    FOR i ← 1 TO x * 4 DO
        OUTPUT "=" WITHOUT NEWLINE
    END FOR
    OUTPUT "#" WITH NEWLINE
    FOR i ← 1 TO x DO
        OUTPUT "|" WITHOUT NEWLINE

        FOR j ← 1 TO (4 - i) DO
            OUTPUT " " WITHOUT NEWLINE
        END FOR

        OUTPUT "<>" WITHOUT NEWLINE

        FOR j ← 1 TO (i - 1) * 4 DO
            OUTPUT "." WITHOUT NEWLINE
        END FOR

        OUTPUT "<>" WITHOUT NEWLINE

        FOR j ← 1 TO (4 - i) DO
            OUTPUT " " WITHOUT NEWLINE
        END FOR

        OUTPUT "|" WITH NEWLINE
    END FOR
    FOR i ← x DOWNTO 1 DO
        OUTPUT "|" WITHOUT NEWLINE

        FOR j ← 1 TO (4 - i) DO
            OUTPUT " " WITHOUT NEWLINE
        END FOR
```

```
OUTPUT "<>" WITHOUT NEWLINE  
  
FOR j ← 1 TO (i - 1) * 4 DO  
    OUTPUT "." WITHOUT NEWLINE  
END FOR  
  
OUTPUT "<>" WITHOUT NEWLINE  
  
FOR j ← 1 TO (4 - i) DO  
    OUTPUT " " WITHOUT NEWLINE  
END FOR  
  
    OUTPUT "|" WITH NEWLINE  
END FOR  
OUTPUT "#"  
FOR i ← 1 TO x * 4 DO  
    OUTPUT "=" WITHOUT NEWLINE  
END FOR  
OUTPUT "#" WITH NEWLINE  
END
```