TUGAS PEKAN 5

PRATIKUM PEMROGRAMAN ALGORITMA DAN PEMROGRAMAN

disusun Oleh:

Habib Al Faruq

2511532010

Dosen Pengampu: Dr. Wahyudi S.T.M.T

Asisten Pratikum: Muhammad Zaki Al Hafiz

DEPARTEMEN INFORMATIKA

FAKULTAS TEKNOLOGI INFORMASI
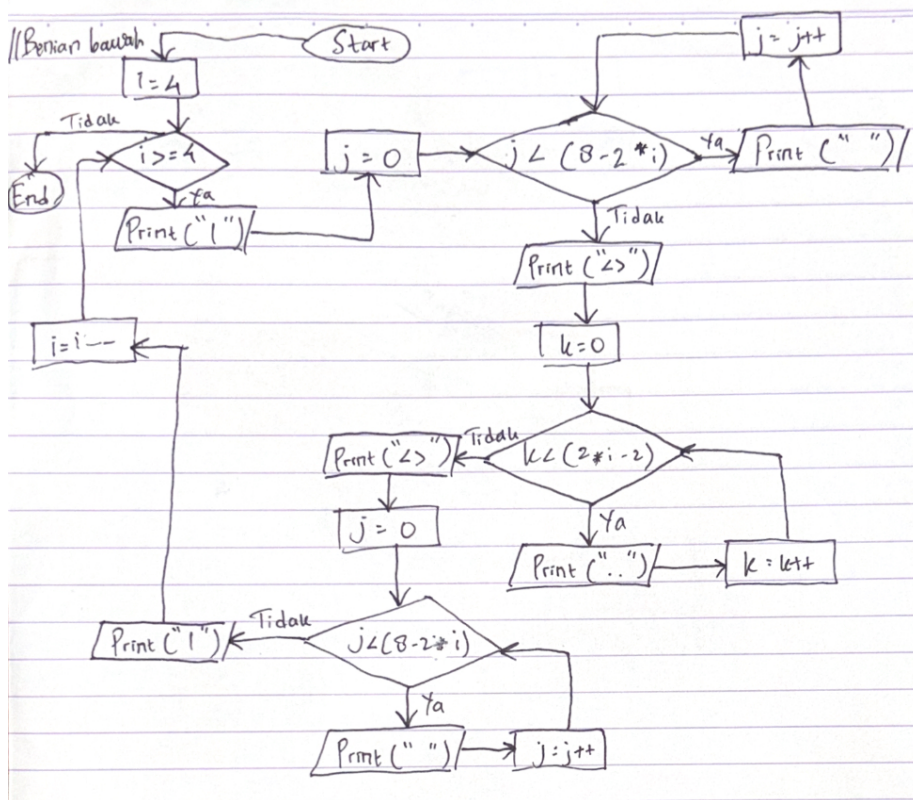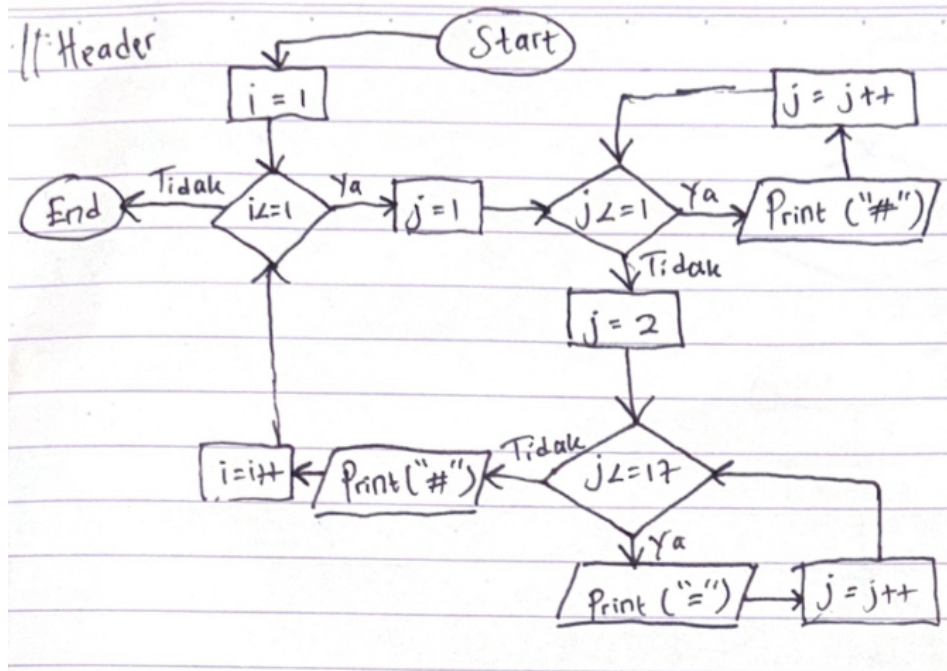
UNIVERSITAS ANDALAS

2025

KODE PROGRAM

```java
package pekan5;

public class TugasNestedFor {

    public static void main(String[] args) {
        for (int i = 1; i<= 1; i++) {
            for (int j = 1; j<=1; j++) {System.out.print("#");}
            for (int j =2; j<=17;j++) {System.out.print("=");}
            System.out.println ("#");}
        for (int i = 1; i <= 4; i++) {System.out.print("|");
            for (int j = 0; j < (8 - 2 * i); j++) {System.out.print(" ");}
            System.out.print("<>");
            for (int k = 0; k < (2 * i - 2); k++) {System.out.print("..");}
            System.out.print("<>");
            for (int j = 0; j < (8 - 2 * i); j++) {System.out.print(" ");}
            System.out.println("|");}
        for (int i = 4; i >= 1; i--) {System.out.print("|");
            for (int j = 0; j < (8 - 2 * i); j++) {System.out.print(" ");}
            System.out.print("<>");
            for (int k = 0; k < (2 * i - 2); k++) {System.out.print("..");}
            System.out.print("<>");
            for (int j = 0; j < (8 - 2 * i); j++) {System.out.print(" ");}
            System.out.println("|");}
        for (int i = 1; i<= 1; i++) {
            for (int j = 1; j<=1; j++) {System.out.print("#");}
            for (int j =2; j<=17;j++) {System.out.print("=");}
            System.out.println ("#");}}}
```
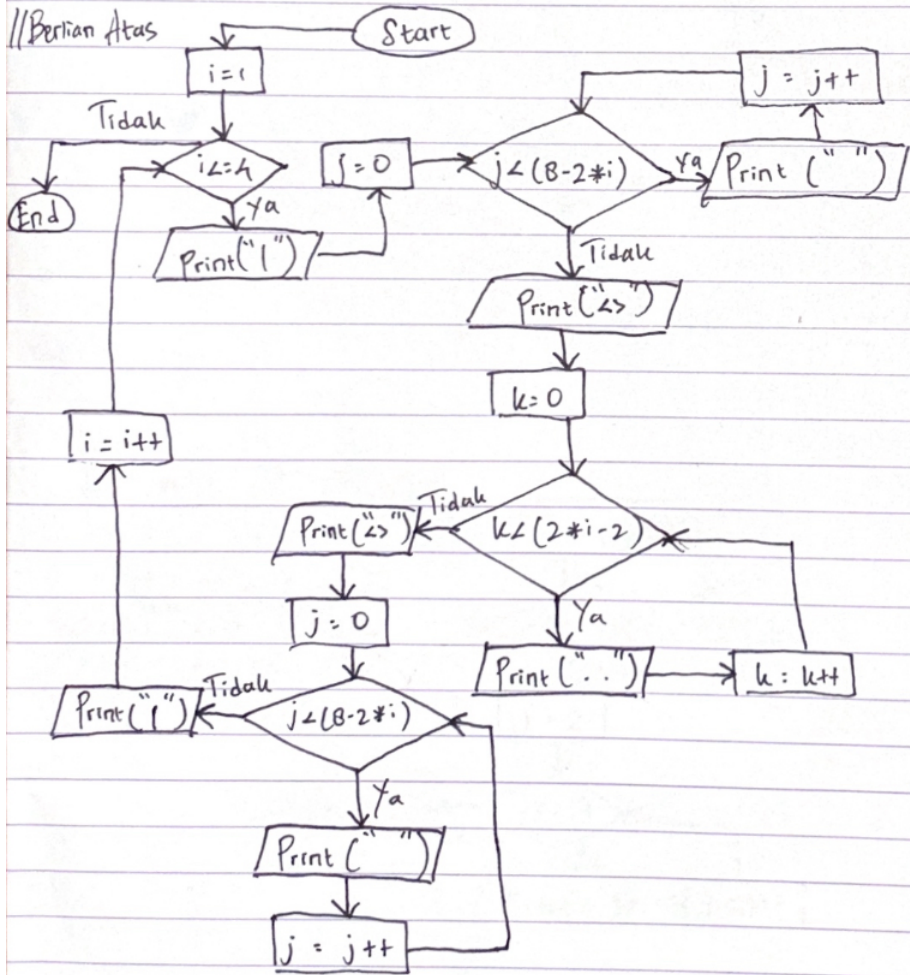
Problems @ Javadoc 🔧 Declaration 🖥 Console ✕ 🔧 Git Staging ⓘ Eclipse IDE for Java Developers 2025-09 Release

<terminated> TugasNestedFor [Java Application] /Library/Java/JavaVirtualMachines/jdk-24.jdk/Contents/Home/bin/java (31 Oct 2025, 21.17.49 – 21.17

```
#===============#
|       <><>      |
|     <>....<>    |
|   <>........<>  |
| <>............<>|
|<>............<>|
|   <>........<>  |
|     <>....<>    |
|       <><>      |
#===============#
```

FLOWCHART

// Header

Start → i = 1

i<=1 — Tidak → End
i<=1 — Ya → j=1 → j<1

j<1 — Ya → Print ("#") → j = j++
j<1 — Tidak → j = 2

j<=17 — Tidak → Print ("#") → i=i++
j<=17 — Ya → Print ("=") → j = j++

// Barisan bawah

Start → i = 4

i>=4 — Tidak → End
i>=4 — Ya → Print ("1")

j = 0 → j < (8-2*i)
j < (8-2*i) — Ya → Print (" ") → j = j++
j < (8-2*i) — Tidak → Print ("<>")

Print ("<>") → k = 0

k < (2*i-2) — Tidak → Print ("<>") → j = 0
k < (2*i-2) — Ya → Print ("..") → k = k++

j < (8-2*i) — Tidak → Print ("1")
j < (8-2*i) — Ya → Print (" ") → j = j++

i = i--

//Berlian Atas

Start

i=1

Tidak

i<=4

End

Ya

Print("1")

j=0

j<(8-2*i)

Ya → Print("   ")

j=j++

Tidak

Print("<>")

k=0

Tidak

Print("<>") ← k<(2*i-2)

j=0

Ya

Print("..") → k=k++

Tidak

Print("1") ← j<(8-2*i)

i=i++

Ya

Print("   ")

j=j++

//Footer

Start

i=1

Tidak

End ← i<=1

Ya

j=1

j<=1

Tidak

Print("#")

Ya

j=j++

j=2

i=i++ ← Print("#") ← j<=17

Tidak

Ya

Print("=") → j=j++
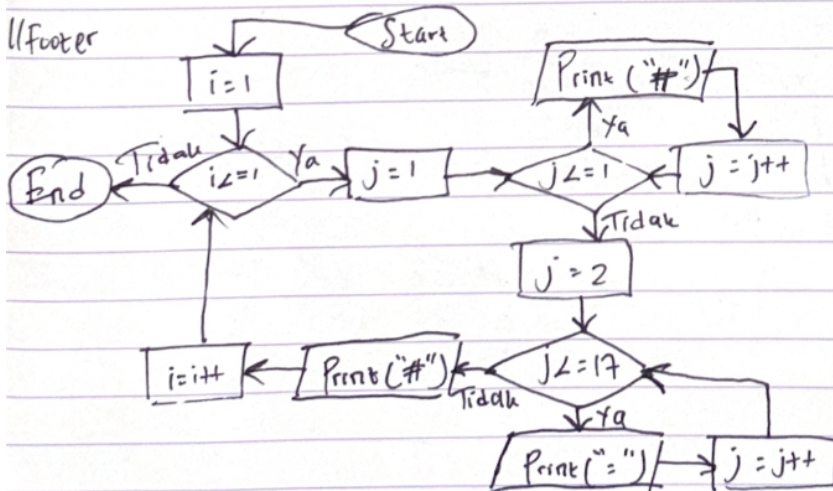
PSEUDOCODE

Judul :

Program perulangan for untuk mendapatan gambar output yang diinginkan

Deklarasi

Variabel i = Integer
Variabel j = Integer
Variabel k = Integer

Algoritma

//Header
1. Input i = 1
2. for i<=1
3.   Input j = 1
4.   for j<=1, Print ("#")
5.   j = j++
6.   End for
7.   Input j = 2
8.   for j<=17, Print ("=")
9.   j = j++
10.   End for
11.   Print ("#")
12. i = i++
13. End for

//Berlian Atas
1. Input i = 1
2. for i <= 4
3.   Input j = 0
4.   for j < (8 - 2 * i), Print (" ")
5.   j = j++
6.   End for
7.   Print ("<>")
8.   Input k = 0
9.   for k < (2 * i - 2), Print (". .")
10.   k = k++
11.   End for
12.   Print ("<>")
13.   Input j = 0
14.   for j < (8 - 2 * i), Print (" ")
15.   j = j++
16.   End for

17.   Print ("|")
18. i = i++
19. End for

//Berlian Bawah
1. Input i = 4
2. for i >= 1
3.   Input j = 0
4.   for j < (8 - 2 * i), Print (" ")
5.   j = j++
6.   End for
7.   Print ("<>")
8.   Input k = 0
9.   for k < (2 * i - 2), Print (". .")
10.   k = k++
11.   End for
12.   Print ("<>")
13.   Input j = 0
14.   for j < (8 - 2 * i), Print (" ")
15.   j = j++
16.   End for
17.   Print ("|")
18. i = i--
19. End for

//Footer
1. Input i = 1
2. for i<=1
3.   Input j = 1
4.   for j<=1, Print ("#")
5.   j = j++
6.   End for
7.   Input j = 2
8.   for j<=17, Print ("=")
9.   j = j++
10.   End for
11.   Print ("#")
12. i = i++
13. End for