

**TUGAS LAPORAN**  
**PEMROGRAMAN BERORIENTASI OBJEK**



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NIM : 130 2019 0005

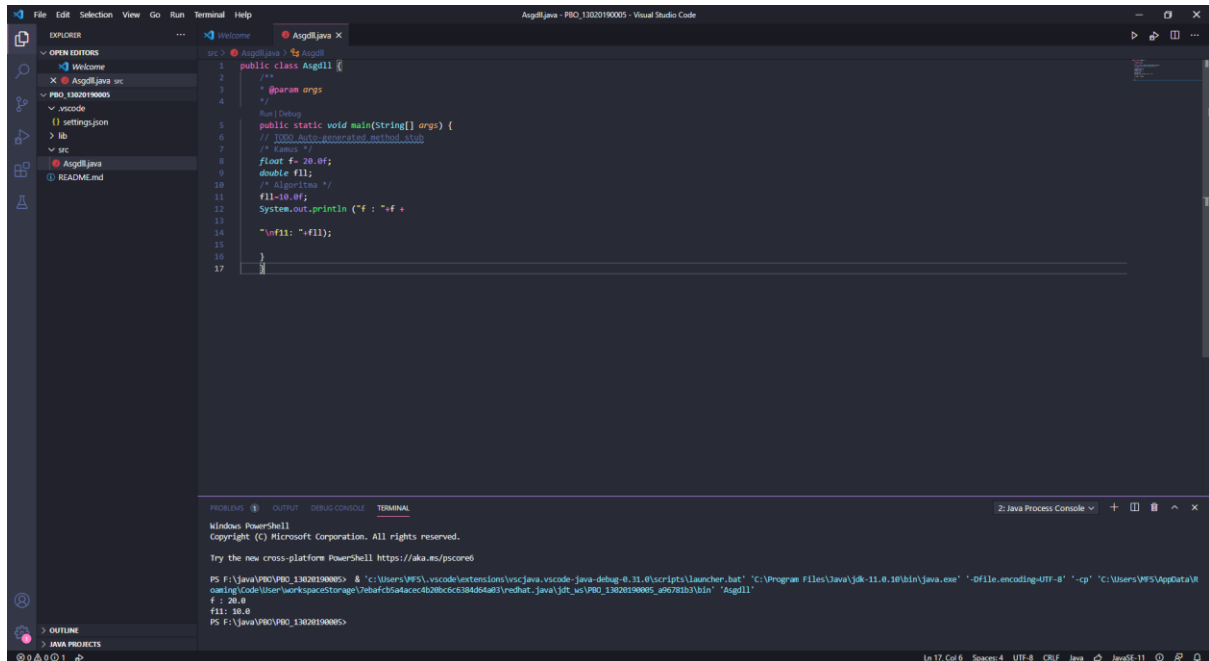
Kelas : A1 2019

**PROGRAM STUDI TEKNIK INFORMATIKA**  
**FAKULTAS ILMU KOMPUTER**  
**UNIVERSITAS MUSLIM INDONESIA**  
**MAKASSAR**

**2021**

# LAPORAN OUTPUT PROGRAM

## PROGRAM 1



```
src > Asgdll.java X
1 public class Asgdll {
2     //
3     // @param args
4     //
5     // Run | Debug
6     public static void main(String[] args) {
7         // 1000 Auto-generated method stub
8         // * Kamas */
9         float f= 20.0f;
10        double f11;
11        // * Algoritma */
12        f11=10.0f;
13        System.out.println("f : " + f +
14        "\nf11: "+f11);
15    }
16
17 }
```

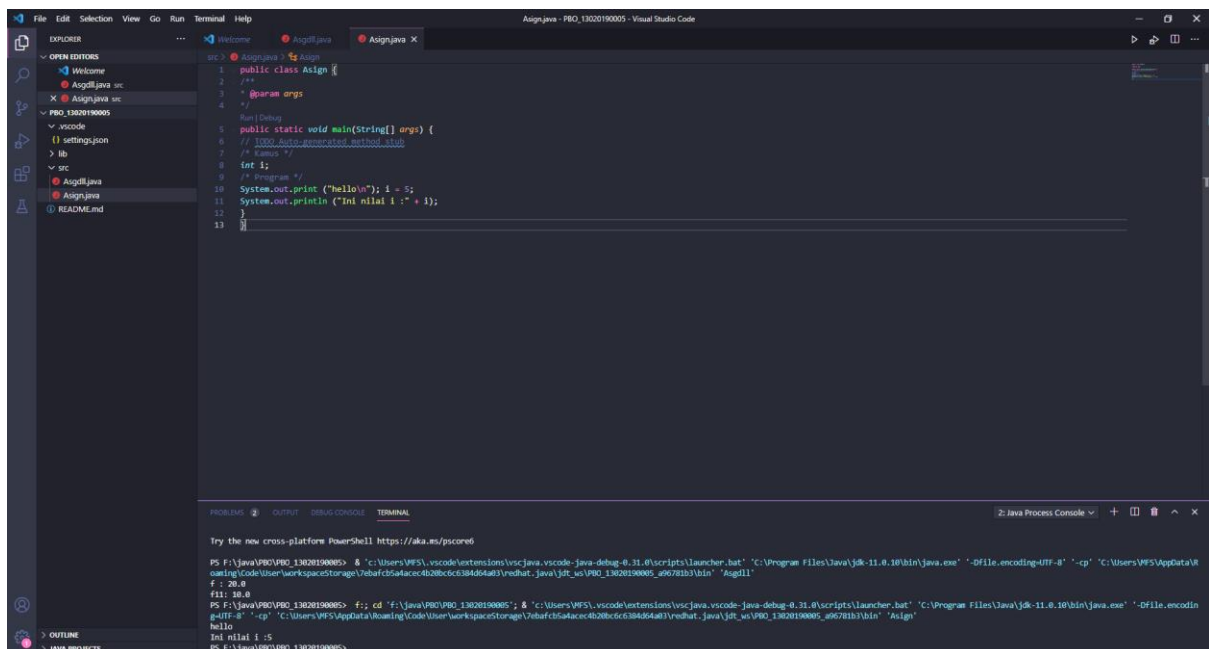
```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/powershell

PS F:\Java\PROJ\PROJ_13020190005> & "C:\Users\WFS\vscode\extensions\vscode-java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Local\Temp\13020190005_49678103\bin" "Asgdll"
f : 20.0
f11: 10.0
PS F:\Java\PROJ\PROJ_13020190005>
```

Dalam program 1 merupakan program java dengan nama kelas Asgdll yang dimana program ini mengeluarkan output dari variable f dan f11.Dimana nilai variable f =20 dan f11=10.

## PROGRAM 2



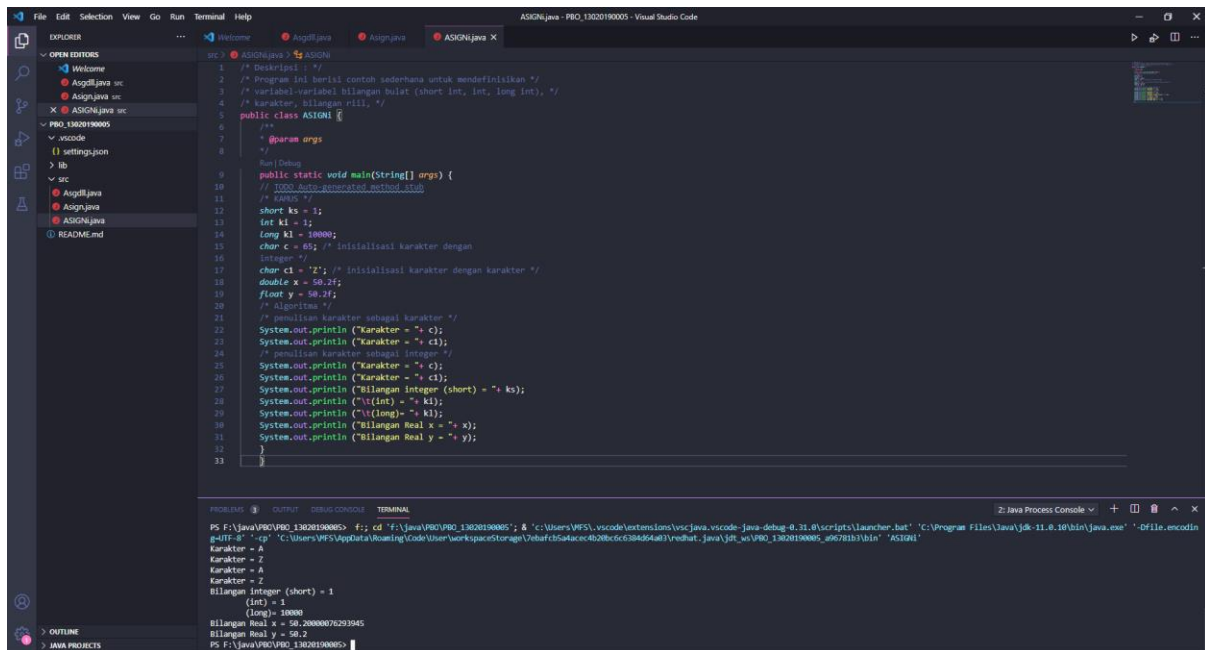
```
src > Asign.java X
1 public class Asign {
2     //
3     // @param args
4     //
5     // Run | Debug
6     public static void main(String[] args) {
7         // 1000 Auto-generated method stub
8         // * Kamas */
9         int i;
10        // * Algoritma */
11        System.out.print("hello\n"); i = 5;
12        System.out.println("Ini nilai i : " + i);
13    }
14 }
```

```
PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Try the new cross-platform PowerShell https://aka.ms/powershell

PS F:\Java\PROJ\PROJ_13020190005> & "C:\Users\WFS\vscode\extensions\vscode-java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Local\Temp\13020190005_49678103\bin" "Asign"
hello
Ini nilai i : 5
PS F:\Java\PROJ\PROJ_13020190005>
```

Program ini disimpan dalam class Asign. Dimana dalam program ini bertujuan untuk mengeluarkan output yang menunjukkan nilai i yang dimana nilai i=5.

## PROGRAM 3

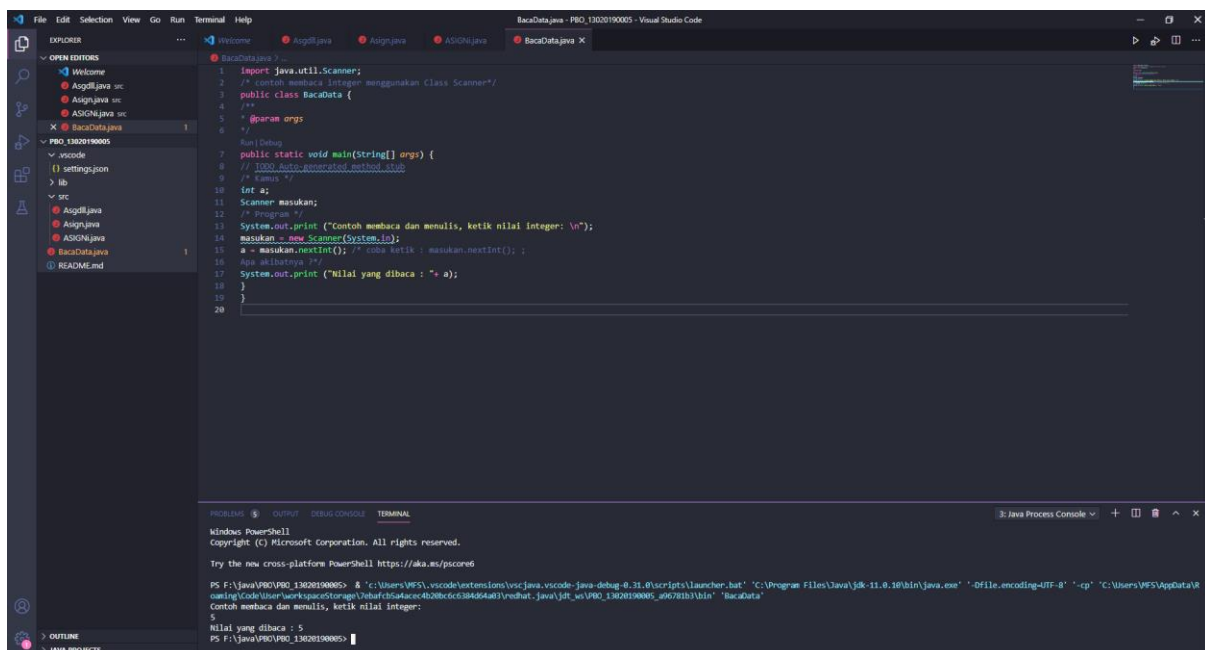


```
1  /* Deskripsi : */
2  /* Program ini berisi contoh sederhana untuk mendefinisikan */
3  /* variabel-variabel bilangan bulat (short int, int, long int), */
4  /* karakter, bilangan riil, */
5  public class ASIGNi {
6      /**
7       * @param args
8       */
9      public static void main(String[] args) {
10         // TODO: Auto-generated method stub
11         /* KAWAS */
12         short ks = 1;
13         int ki = 1;
14         long li = 10000;
15         char c = 65; /* Inisialisasi karakter dengan
16            integer */
17         char ci = 'Z'; /* Inisialisasi karakter dengan karakter */
18         double x = 50.2f;
19         float y = 50.2f;
20         /* Algoritma */
21         /* pemilisan karakter sebagai karakter */
22         System.out.println("Karakter = " + c);
23         System.out.println("Karakter = " + ci);
24         /* pemilisan karakter sebagai integer */
25         System.out.println("Karakter = " + ci);
26         System.out.println("Karakter = " + c);
27         System.out.println("Bilangan Integer (short) = " + ks);
28         System.out.println("(int) = " + ki);
29         System.out.println("(long) = " + li);
30         System.out.println("Bilangan Real x = " + x);
31         System.out.println("Bilangan Real y = " + y);
32     }
33 }
```

```
PS F:\Java\PRO_13020190005> f:\cd "F:\Java\PRO_13020190005"; & "C:\Users\WFS\vscode\extensions\vscode-java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Local\Temp\13020190005\classes" "ASIGNi"
Karakter = A
Karakter = Z
Karakter = A
Karakter = Z
Bilangan Integer (short) = 1
(int) = 1
(long) = 10000
Bilangan Real x = 50.20000076293945
Bilangan Real y = 50.2
PS F:\Java\PRO_13020190005>
```

Program ini disimpan pada kelas ASIGNi. Dimana program ini bertujuan untuk mendefinisikan variabel-variabel bilangan bulat (short, int, long, char, double, dan float). Dimana terdapat salah satu variabel yang di definisikan menggunakan kode ASCII yaitu C=65 dimana dalam ASCII 65 itu merupakan karakter A kapital. Selain itu juga program ini bertujuan untuk menampilkan nilai yang telah dideklarasikan dengan sebuah variabel.

## PROGRAM 4



```
1  import java.util.Scanner;
2  /* contoh membaca Integer menggunakan Class Scanner */
3  public class BacaData {
4      /**
5       * @param args
6       */
7      public static void main(String[] args) {
8         // TODO: Auto-generated method stub
9         /* KAWAS */
10         int a;
11         Scanner masukan;
12         /* Program */
13         System.out.print("Contoh membaca dan menulis, ketik nilai Integer: \n");
14         masukan = new Scanner(System.in);
15         a = masukan.nextInt(); /* coba ketik : masukan.nextInt();
16            Apa kaitannya */
17         System.out.print("Nilai yang dibaca : " + a);
18     }
19 }
20
```

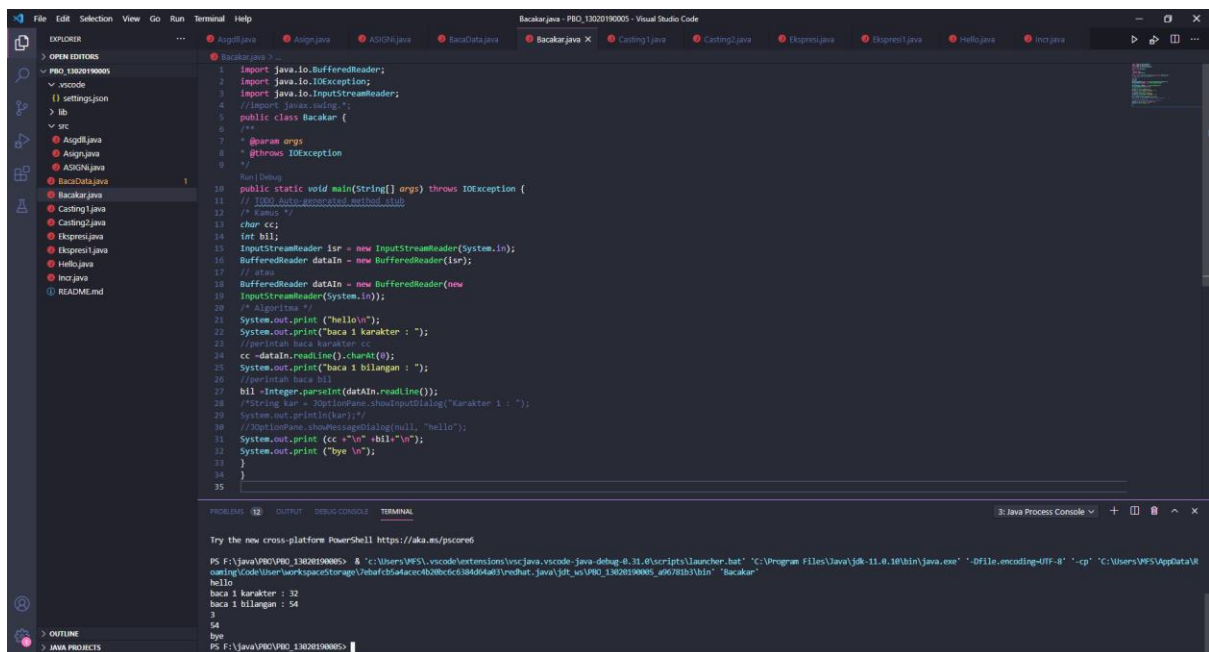
```
Windows PowerShell
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PS F:\Java\PRO_13020190005> & "C:\Users\WFS\vscode\extensions\vscode-java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Local\Temp\13020190005\classes" "BacaData"
Contoh membaca dan menulis, ketik nilai Integer:
5
Nilai yang dibaca : 5
PS F:\Java\PRO_13020190005>
```

Program ini disimpan pada class BacaData. Dimana pada program ini bertujuan untuk penginputan data serta mengeluarkan hasil inputan dari int a berupa output nilai int a.

## PROGRAM 5



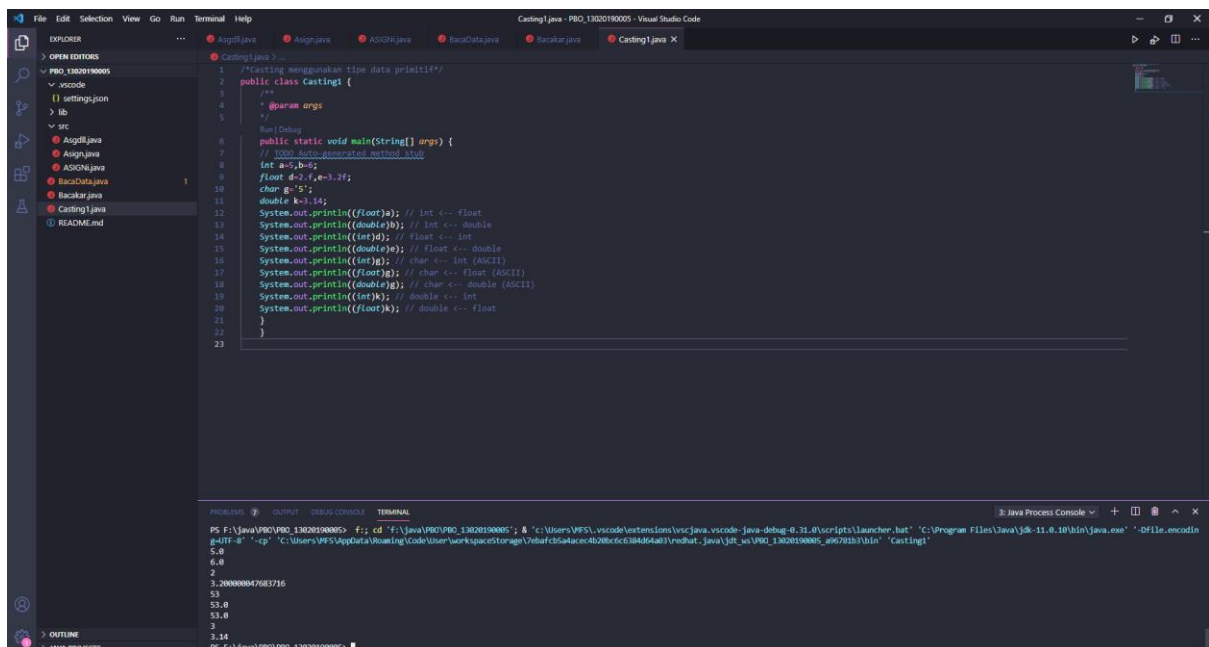
```
1 import java.io.BufferedReader;
2 import java.io.IOException;
3 import java.io.InputStreamReader;
4 //import java.util.*;
5 public class Bacakar {
6     //
7     @param args
8     @throws IOException
9     //
10    public static void main(String[] args) throws IOException {
11        // 1000 Auto-generated method stub
12        /* Kamus */
13        char cc;
14        int bil;
15        InputStreamReader isr = new InputStreamReader(System.in);
16        BufferedReader dataIn = new BufferedReader(isr);
17        //
18        BufferedReader dataIno = new BufferedReader(new
19        InputStreamReader(System.in));
20        /* Algoritma */
21        System.out.print("halo!\n");
22        System.out.print("baca 1 karakter : ");
23        //perintah baca karakter cc
24        cc = dataIn.readLine().charAt(0);
25        System.out.print("baca 1 bilangan : ");
26        //perintah baca bil
27        bil = Integer.parseInt(dataIn.readLine());
28        /*String kar = JOptionPane.showInputDialog("karakter 1 : ");
29        System.out.println(kar);
30        //JOptionPane.showMessageDialog(null, "hello");
31        System.out.print(cc + "\n" + bil + "\n");
32        System.out.print("bye\n");
33        }
34    }
35 }
```

Try the new cross-platform PowerShell <https://aka.ms/powershell>

```
PS F:\Java\PROJ\PROJ_13020190005> & "C:\Users\WFS\vscode\extensions\vscode-java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Local\Temp\13020190005\workspace\Bacakar\Bacakar.java" "Bacakar"
halo
baca 1 karakter : 32
baca 1 bilangan : 54
3
54
bye
PS F:\Java\PROJ\PROJ_13020190005>
```

Program ini disimpan dalam class Bacakar. Dimana program ini bertujuan untuk menginput dan mengeluarkan output yang merupakan hasil inputan. Dimana ada output yang hanya dibaca 1 karakter dari inputan yang kita input dan ada juga output yang mengeluarkan hasil inputan bilangan yang kita input.

## PROGRAM 6



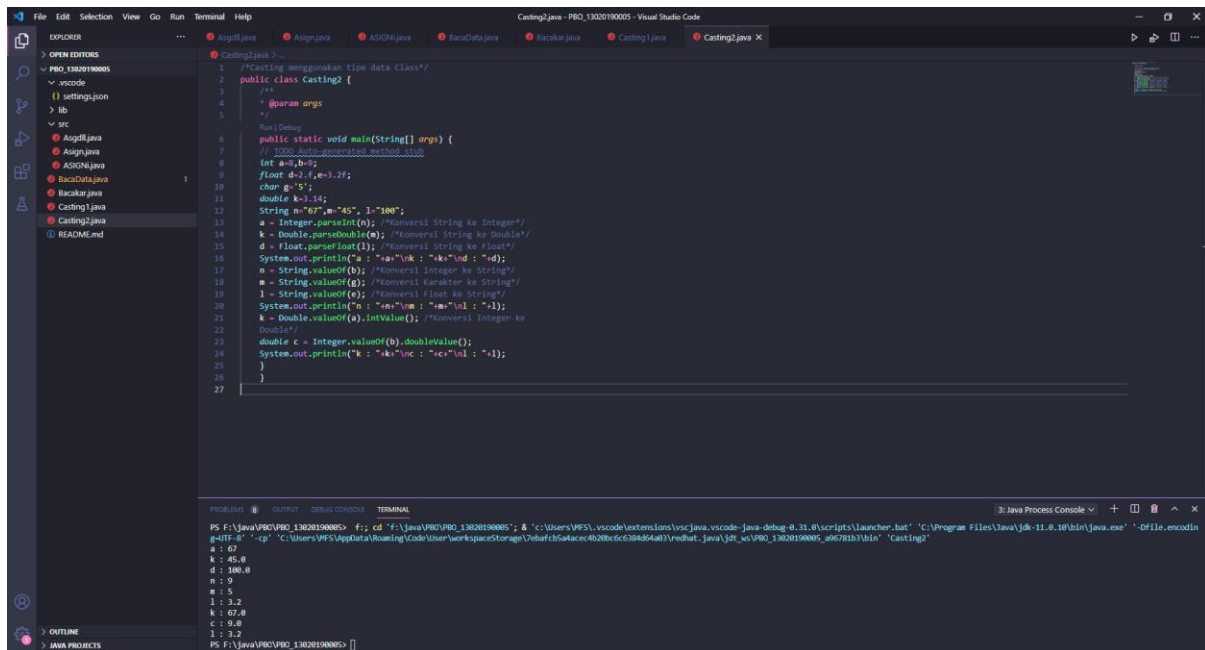
```
1 /*Casting menggunakan tipe data primitif*/
2 public class Casting1 {
3     //
4     @param args
5     //
6     public static void main(String[] args) {
7        // 1000 Auto-generated method stub
8        int a=5,b=6;
9        float d=3.4,f=3.2f;
10        char g='5';
11        double k=3.14;
12        System.out.println((float)a); // int <-- float
13        System.out.println((double)b); // int <-- double
14        System.out.println((int)d); // float <-- int
15        System.out.println((double)e); // float <-- double
16        System.out.println((int)g); // char <-- int (ASCII)
17        System.out.println((float)h); // char <-- float (ASCII)
18        System.out.println((double)g); // char <-- double (ASCII)
19        System.out.println((int)k); // double <-- int
20        System.out.println((float)k); // double <-- float
21    }
22 }
23 }
```

Try the new cross-platform PowerShell <https://aka.ms/powershell>

```
PS F:\Java\PROJ\PROJ_13020190005> & "C:\Users\WFS\vscode\extensions\vscode-java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Local\Temp\13020190005\workspace\Casting1\Casting1.java" "Casting1"
5.0
6.0
3
3.14
3.200000047683716
53
53.0
53.0
3
3.14
PS F:\Java\PROJ\PROJ_13020190005>
```

Program ini disimpan pada class Casting1. Dimana program ini bertujuan untuk mengubah tipe data pada sebuah variabel yang telah dideklarasikan sebelumnya. Dimana outputnya itu berupa perubahan tipe data pada setiap variabel.

## PROGRAM 7

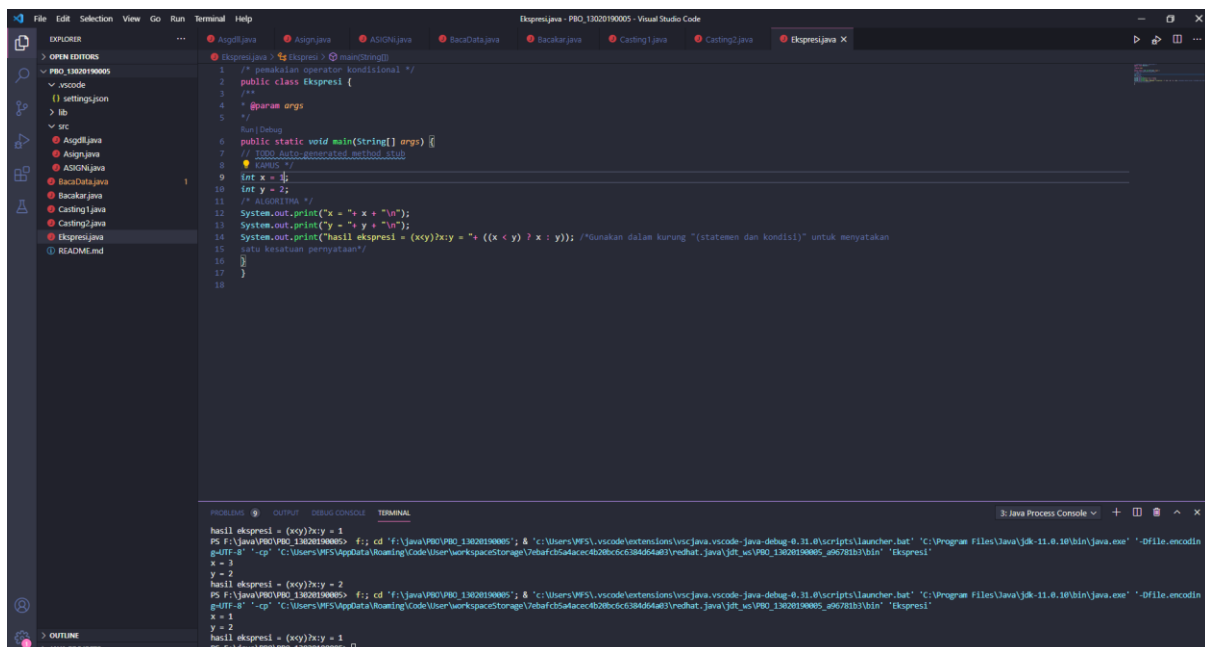


```
1  /*Casting menggunakan tipe data Class*/
2  public class Casting2 {
3      //
4      @param args
5      //
6      Run/Debug
7      public static void main(String[] args) {
8          // 1000 Auto-generated method stub
9          int a=0,b=0;
10         float d=2.5,e=3.2f;
11         char g='s';
12         double k=1.14;
13         String m="67",n="45",l="100";
14         a = Integer.parseInt(n); /*Konversi String ke Integer*/
15         k = Double.parseDouble(b); /*Konversi String ke Double*/
16         d = Float.parseFloat(l); /*Konversi String ke Float*/
17         System.out.println("a : "+a+"b : "+b+"d : "+d);
18         n = String.valueOf(b); /*Konversi Integer ke String*/
19         m = String.valueOf(d); /*Konversi Karakter ke String*/
20         l = String.valueOf(e); /*Konversi Float ke String*/
21         System.out.println("n : "+n+"m : "+m+"l : "+l);
22         k = Double.valueOf(a).intValue(); /*Konversi Integer ke Double*/
23         double c = Integer.valueOf(b).doubleValue();
24         System.out.println("k : "+k+"c : "+c);
25     }
26 }
27
```

```
PS F:\Java\PROJ\PROJ_13020190005> f.; cd "F:\Java\PROJ\PROJ_13020190005"; & "C:\Users\WFS\vscode\extensions\vscode-java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Roaming\Code\User\workspaceStorage\17ebafcb5afacc4b208cc6384d64a3\vscode\java\jdk_ws\PROJ_13020190005_496701b3\bin" "Casting2"
a : 67
k : 45.0
d : 100.0
b : 0
e : 3.2
l : 67.0
m : 45
n : 100
c : 0.0
PS F:\Java\PROJ\PROJ_13020190005>
```

Program ini disimpan pada class Casting2.Dimana program ini semacam mengonversi variabel sesuai tipe data yang telah dideklarasikan pada awalnya beserta nilai variabelnya masing-masing, kemudian mengeluarkan output berupa pemanggilan variabel yang disertai perubahan tipe data.

## PROGRAM 8

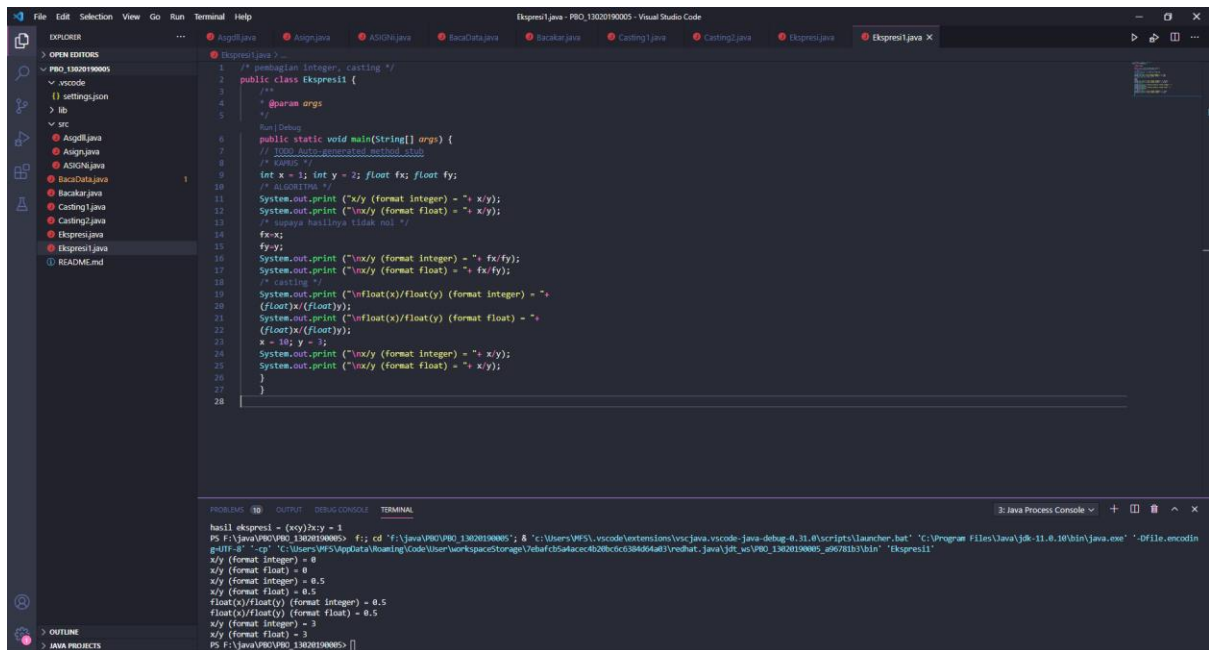


```
1  /* pemakaian operator kondisional */
2  public class Ekspresi {
3      //
4      @param args
5      //
6      Run/Debug
7      public static void main(String[] args) {
8          // 1000 Auto-generated method stub
9          int x = 1;
10         int y = 2;
11         // ALGORITMA
12         System.out.println("x = "+ x + "y = "+ y);
13         System.out.println("y = "+ y + "x = "+ x);
14         System.out.println("hasil ekspresi = (x<y)?x:y = "+ ((x < y) ? x : y)); /*Gunakan dalam kurung "(statemen dan kondisi)" untuk menyatakan satu kesatuan pernyataan*/
15     }
16 }
17
18
```

```
hasil ekspresi = (x<y)?x:y = 1
PS F:\Java\PROJ\PROJ_13020190005> f.; cd "F:\Java\PROJ\PROJ_13020190005"; & "C:\Users\WFS\vscode\extensions\vscode-java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Roaming\Code\User\workspaceStorage\17ebafcb5afacc4b208cc6384d64a3\vscode\java\jdk_ws\PROJ_13020190005_496701b3\bin" "Ekspresi"
x = 1
y = 2
hasil ekspresi = (x<y)?x:y = 1
PS F:\Java\PROJ\PROJ_13020190005>
```

Program ini disimpan dalam class Ekspresi .Dimana program ini bertujuan untuk penggunaan operasi kondisional .Dimana pada kasus program diatas dilakukan pengecekan apakah  $x < y$ ? apabila ya maka hasil ekspresi = nilai x ,apabila tidak maka hasil ekspresi =nilai y

## PROGRAM 9

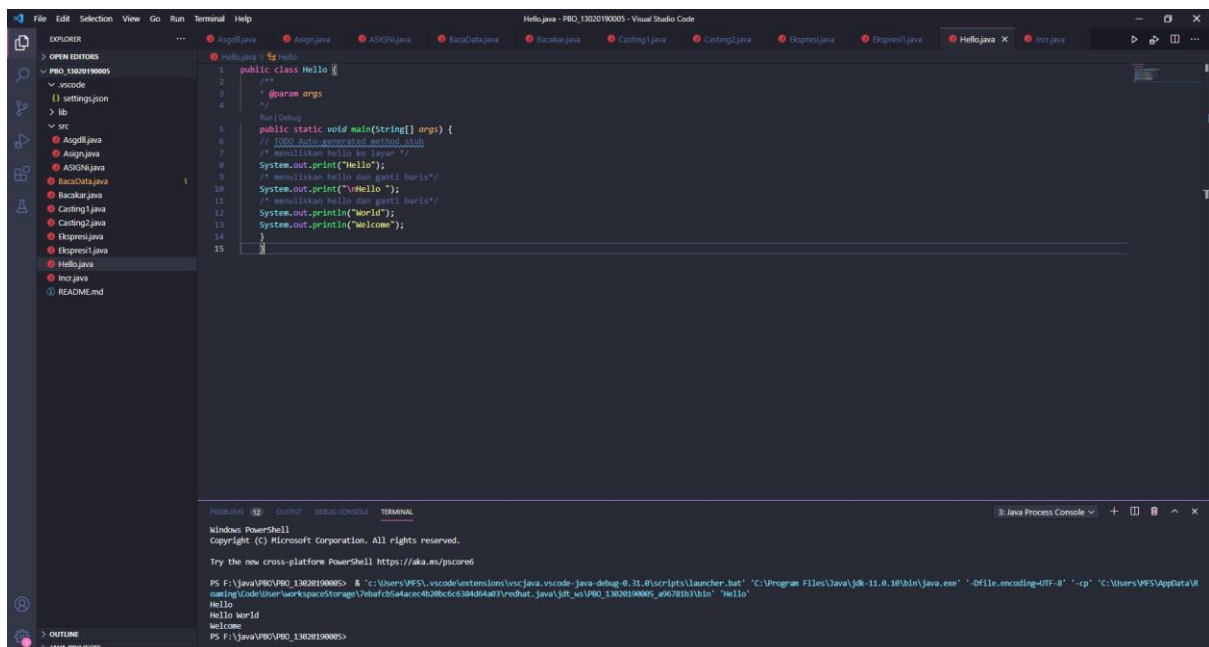


```
1  /* pembagian Integer, casting */
2  public class Ekspres1 {
3      //
4      // @param args
5      //
6      Run [Debug]
7      // 1000 Auto-generated method stub
8      // Kanvas
9      int x = 1; int y = 2; float fx; float fy;
10     // AutoRun
11     System.out.print ("x/y (format Integer) = " + x/y);
12     System.out.print ("\\n x/y (format float) = " + x/y);
13     // supaya hasilnya tidak nol
14     fx=x;
15     fy=y;
16     System.out.print ("\\n x/y (format Integer) = " + fx/fy);
17     System.out.print ("\\n x/y (format float) = " + fx/fy);
18     // casting
19     System.out.print ("\\n float(x)/float(y) (format Integer) = " +
20     (float)x/(float)y);
21     System.out.print ("\\n float(x)/float(y) (format float) = " +
22     (float)x/(float)y);
23     x = 10; y = 3;
24     System.out.print ("\\n x/y (format Integer) = " + x/y);
25     System.out.print ("\\n x/y (format float) = " + x/y);
26
27
28 }
```

```
hasil ekspresi = {xy}xy = 1
PS F:\Java\PROG\PROG_13020190005> F:\cd "F:\Java\PROG\PROG_13020190005"; & "C:\Users\WFS\vscode\extensions\vscode.java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Local\Temp\Code\User\workspaceStorage\7ebafcb5afacc4b208dc6384d6a83\vscode\java\jdt_ws\PROG_13020190005_a96781b3\bin" "Ekspres1"
x/y (format Integer) = 0
x/y (format float) = 0
x/y (format Integer) = 0.5
x/y (format float) = 0.5
float(x)/float(y) (format Integer) = 0.5
float(x)/float(y) (format float) = 0.5
x/y (format Integer) = 3
x/y (format float) = 3
PS F:\Java\PROG\PROG_13020190005>
```

Program ini disimpan pada class Ekspres1 .Program ini bertujuan untuk pembagian dalam tipe data integer serta casting pada variabel yang telah dideklarasikan sebelumnya.Seperti pengubahan tipe data integer ke float dalam pembagian variabel x dan y .

## PROGRAM 10



```
1  public class Hello {
2      //
3      // @param args
4      //
5      Run [Debug]
6      // 1000 Auto-generated method stub
7      // memuliskan Hello ke layar
8      System.out.print("Hello");
9      // memuliskan Hello dan ganti baris
10     System.out.print("\nHello ");
11     // memuliskan Hello dan ganti baris
12     System.out.println("World");
13     System.out.println("Welcome");
14
15 }
```

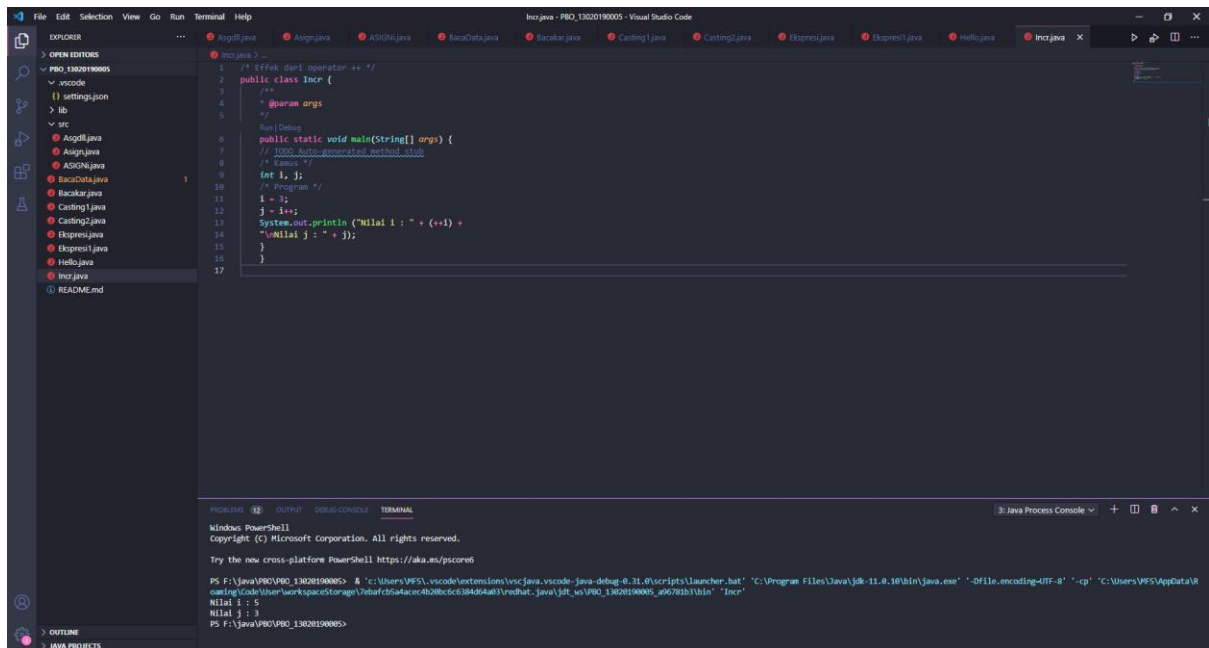
```
Windows PowerShell
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PS F:\Java\PROG\PROG_13020190005> & "C:\Users\WFS\vscode\extensions\vscode.java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Local\Temp\Code\User\workspaceStorage\7ebafcb5afacc4b208dc6384d6a83\vscode\java\jdt_ws\PROG_13020190005_a96781b3\bin" "Hello"
Hello
Hello
Welcome
PS F:\Java\PROG\PROG_13020190005>
```

Program ini disimpan pada class Hello.Dimana program ini bertujuan untuk mengeluarkan output dengan ganti baris (\n) atau tanpa ganti baris

## PROGRAM 11

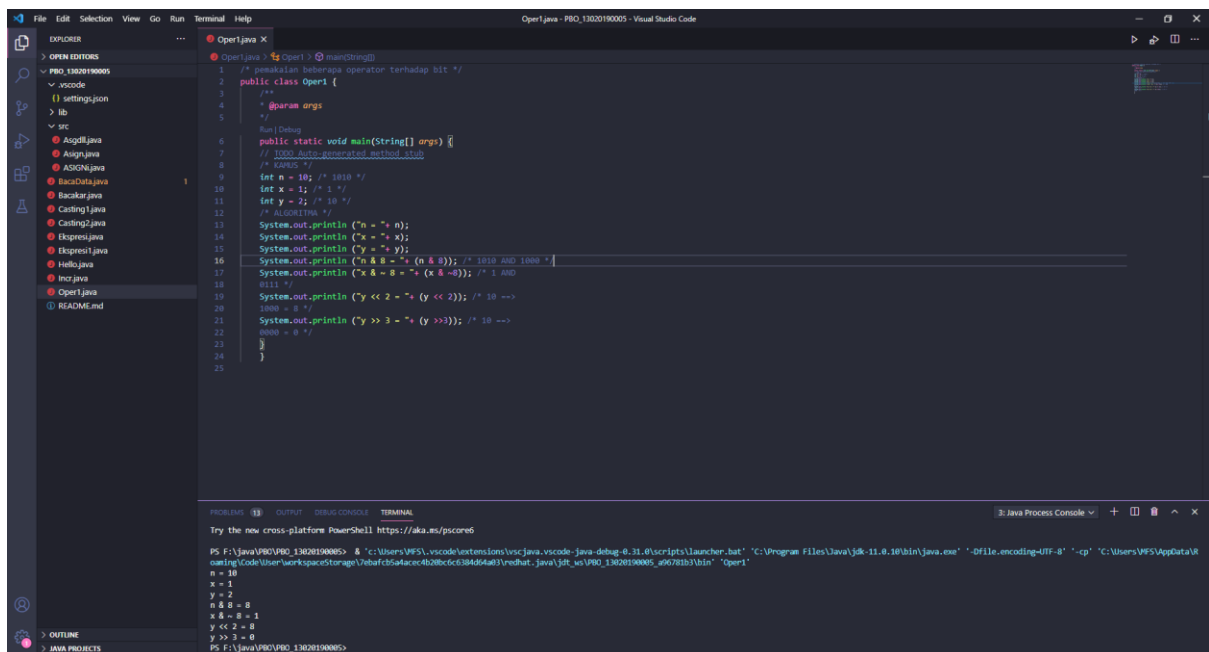


```
1  /* Efek dari operator ++ */
2  public class Incr {
3      /**
4       * @param args
5       */
6      public static void main(String[] args) {
7          // 1000 Auto-generated method stub
8          /* Kamus */
9          int i, j;
10         /* Program */
11         i = 5;
12         j = i++;
13         System.out.println("Nilai i : " + (++i) +
14             "Nilai j : " + j);
15     }
16 }

PS F:\Java\PROG_13020190005> & "C:\Users\WFS\vscode\extensions\vscode-java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Local\Temp\code-workspace\storage\debafcb54fac64b208c6c384d04a31\redhat_java\jdk_vs_VPRO_13020190005_06070303\bin" "Incr"
Nilai i : 3
Nilai j : 5
PS F:\Java\PROG_13020190005>
```

Program ini disimpan dalam class Incr. Dimana merupakan penggunaan increment yang terdiri atas pre-increment (++i) dan post-increment (i++) .

## PROGRAM 12



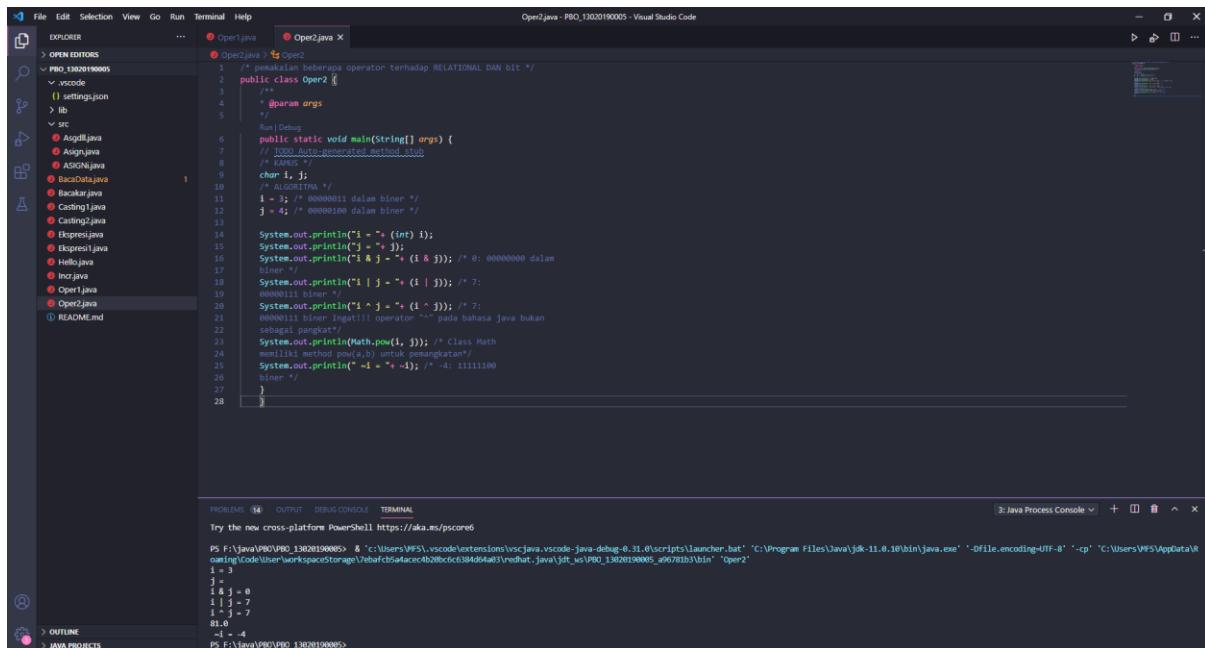
```
1  /* penekanan beberapa operator terhadap bit */
2  public class Oper1 {
3      /**
4       * @param args
5       */
6      public static void main(String[] args) {
7          // 1000 Auto-generated method stub
8          /* KAMUS */
9          int n = 10; /* 1010 */
10         int x = 1; /* 1 */
11         int y = 2; /* 10 */
12         /* ALGORITMA */
13         System.out.println("n = " + n);
14         System.out.println("x = " + x);
15         System.out.println("y = " + y);
16         System.out.println("n & 8 = " + (n & 8)); /* 1010 AND 1000 = 1000 */
17         System.out.println("x & 8 = " + (x & 8)); /* 1 AND 1000 = 0 */
18         System.out.println("y << 2 = " + (y << 2)); /* 10 << 2 = 40 */
19         System.out.println("y >> 3 = " + (y >> 3)); /* 10 >> 3 = 0 */
20     }
21 }

PS F:\Java\PROG_13020190005> & "C:\Users\WFS\vscode\extensions\vscode-java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Local\Temp\code-workspace\storage\debafcb54fac64b208c6c384d04a31\redhat_java\jdk_vs_VPRO_13020190005_06070303\bin" "Oper1"
n = 10
x = 1
y = 2
n & 8 = 8
x & 8 = 0
y << 2 = 4
y >> 3 = 0
PS F:\Java\PROG_13020190005>
```

Program ini disimpan dalam class Oper1. Dimana program ini berfungsi untuk memaparkan mengenai penggunaan operator bitwise pada variabel yang memiliki nilai dan telah dideklarasikan



## Program 13

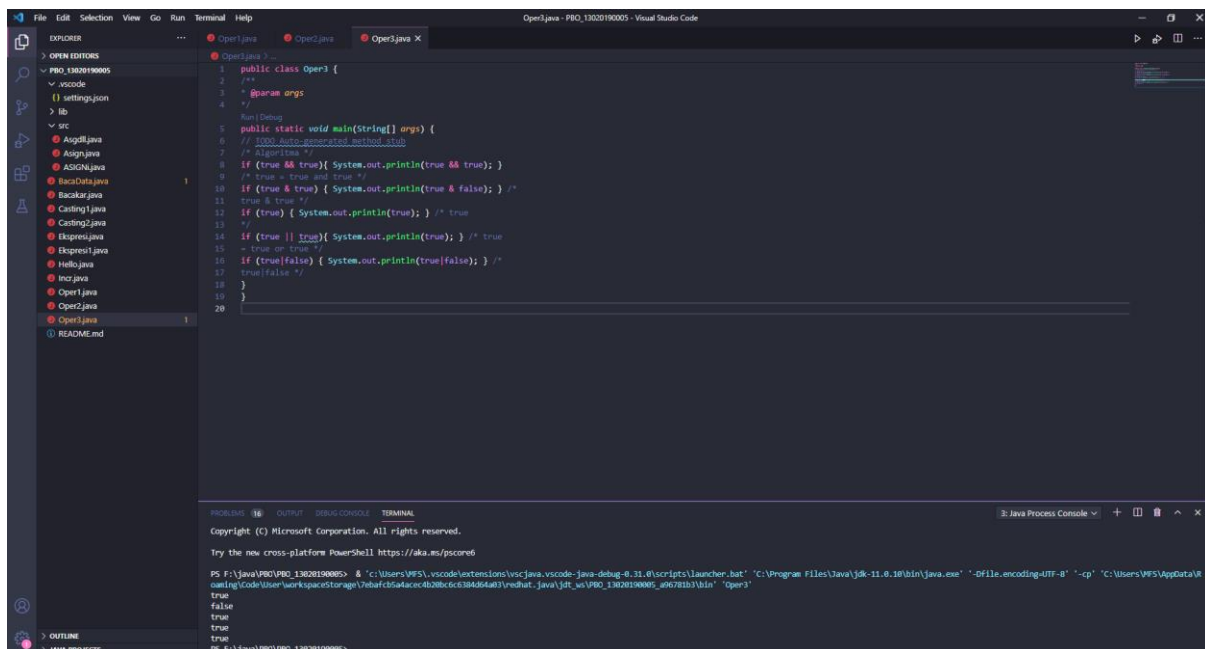


```
1  /* pemakaian beberapa operator terhadap RELATIONAL DAN bit */
2  public class Oper2 {
3      //
4      @param args
5      //
6      Run(Debug
7      // 1000 Auto-generated method stub
8      /* KAWAS */
9      char i, j;
10     // ASCII 1190 /*
11     i = 3; /* 00000011 dalam biner */
12     j = 4; /* 00000100 dalam biner */
13
14     System.out.println("i = " + (int) i);
15     System.out.println("j = " + j);
16     System.out.println("i & j = " + (i & j)); /* 0: 00000000 dalam
17     biner */
18     System.out.println("i | j = " + (i | j)); /* 7:
19     00000111 biner */
20     System.out.println("i ^ j = " + (i ^ j)); /* 7:
21     00000111 biner. Ingat!!! operator "<"; pada bahasa java bukan
22     bahasa pemrograman
23     System.out.println(Math.pow(1, j)); /* Class Math
24     memiliki method pow(a,b) untuk pemangkatan/
25     System.out.println("-i = " + -i); /* -4: 11111100
26     biner */
27
28 }
```

```
PS F:\Java\PRO_13020190005> & "C:\Users\WFSI\vscode\extensions\vscode-java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFSI\AppData\Local\Temp\13020190005\classes" "Oper2"
i = 3
j = 4
i & j = 0
i | j = 7
i ^ j = 7
-i = -4
```

Program ini disimpan dalam class Oper2. Dimana program ini bertujuan untuk pemakaian beberapa operator terhadap relational dan bit.

## PROGRAM 14



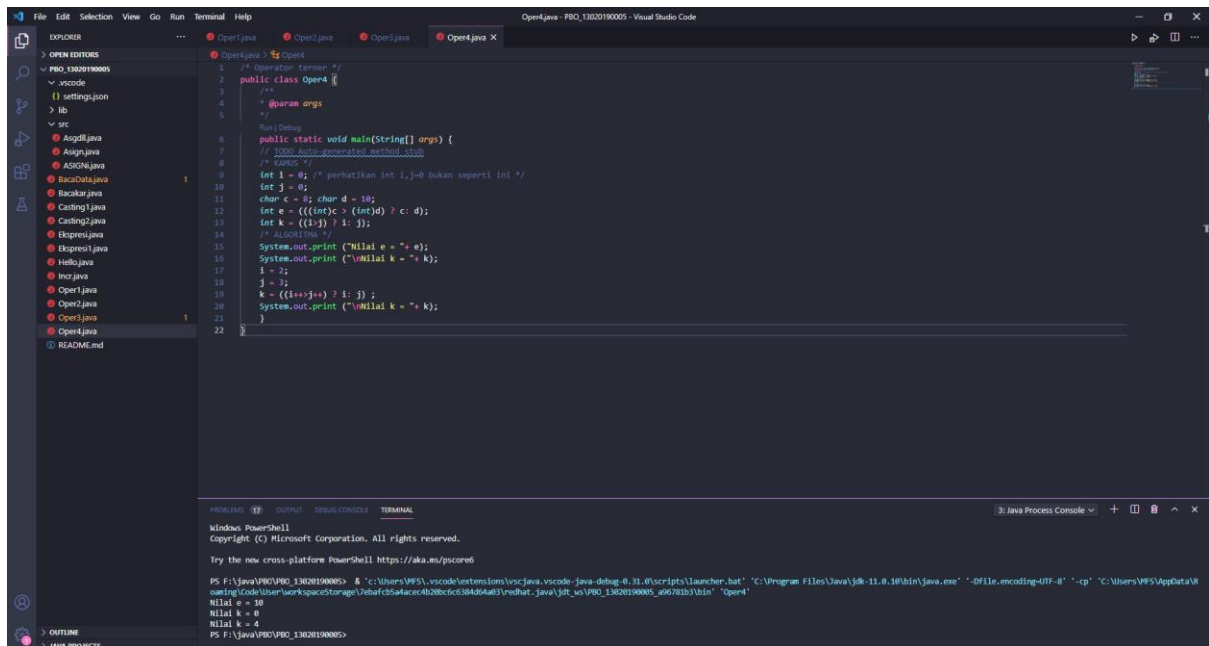
```
1  public class Oper3 {
2      //
3      @param args
4      //
5      Run(Debug
6      // 1000 Auto-generated method stub
7      /* KAWAS */
8      if (true && true) { System.out.println(true && true); }
9      // true & true & true */
10     if (true & true) { System.out.println(true & false); } /*
11     true & true */
12     if (true) { System.out.println(true); } /* true
13     */
14     if (true || true) { System.out.println(true); } /* true
15     = true or true */
16     if (true || false) { System.out.println(true || false); } /*
17     true || false */
18
19
20 }
```

```
PS F:\Java\PRO_13020190005> & "C:\Users\WFSI\vscode\extensions\vscode-java-debug-0.31.0\scripts\launcher.bat" "C:\Program Files\Java\jdk-11.0.10\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFSI\AppData\Local\Temp\13020190005\classes" "Oper3"
true
true
true
true
true
```

Program ini disimpan dalam class Oper3. Dimana program ini berfungsi untuk memaparkan proses Boolean pada suatu kondisi.



## PROGRAM 15



```
1  /* Operator terner */
2  public class Oper4 {
3      //
4      // @param args
5      //
6      Run (Debug)
7      // 1000 Auto-generated method stub
8      // KAVAS */
9      int i = 0; /* perhatikan int i,j=0 bukan seperti ini */
10     int j = 0;
11     char c = 'k'; char d = 'l';
12     int e = (((int)c) > (int)d) ? c : d;
13     int k = (((i > j) ? i : j));
14     // algoritma */
15     System.out.print ("Nilai e = " + e);
16     System.out.print ("\nNilai k = " + k);
17     i = 2;
18     j = 3;
19     k = (((i++>j++)) ? i : j);
20     System.out.print ("\nNilai k = " + k);
21 }

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/powershell

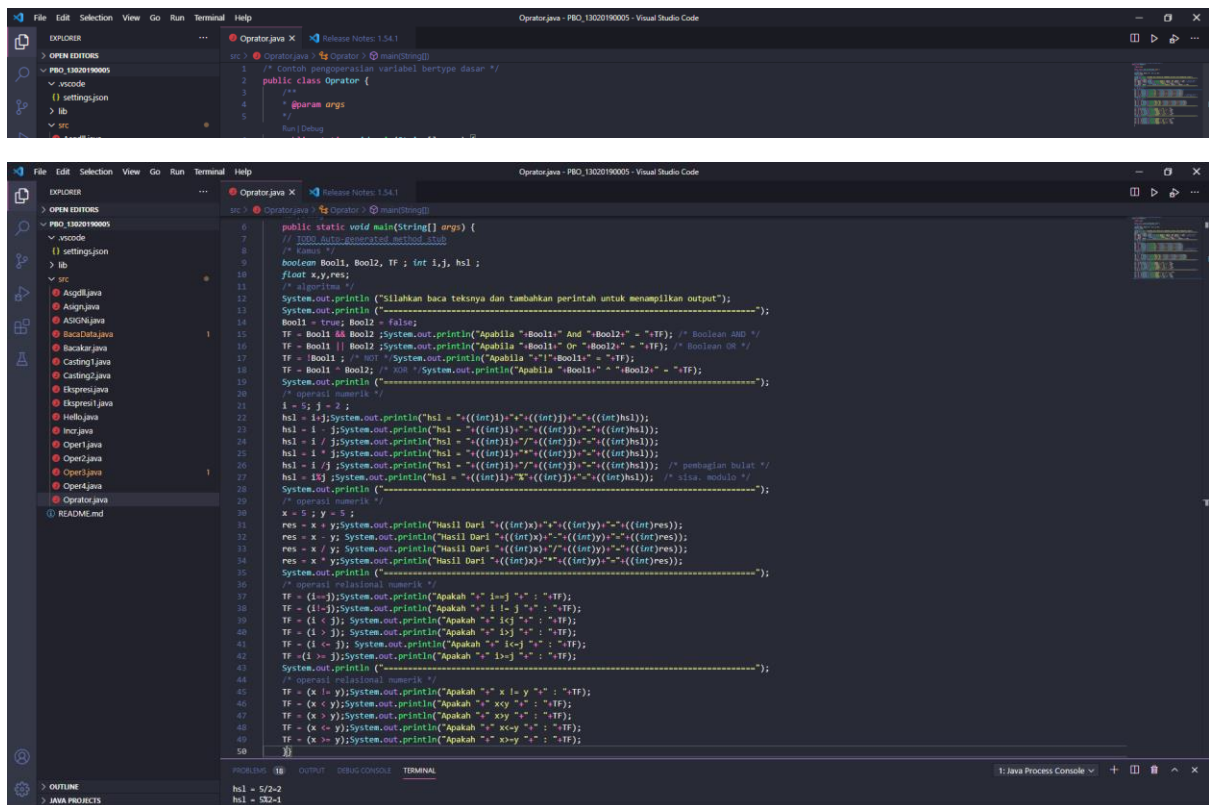
PS F:\Java\PROJ\PROJ_13020190005> & "C:\Users\WFS\vscode\extensions\vscode.java-debug-0.31.0\scripts\launcher.ps1" "C:\Program Files\Java\jdk-11.0.8\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Local\Temp\Code\User\workspaceStorage\2ebafcb5afac6b208c6c384d04a13\redhat_java\jdt_vs_V80_13020190005_49078183\bin" "Oper4"

Nilai e = 10
Nilai k = 0
Nilai k = 4

PS F:\Java\PROJ\PROJ_13020190005>
```

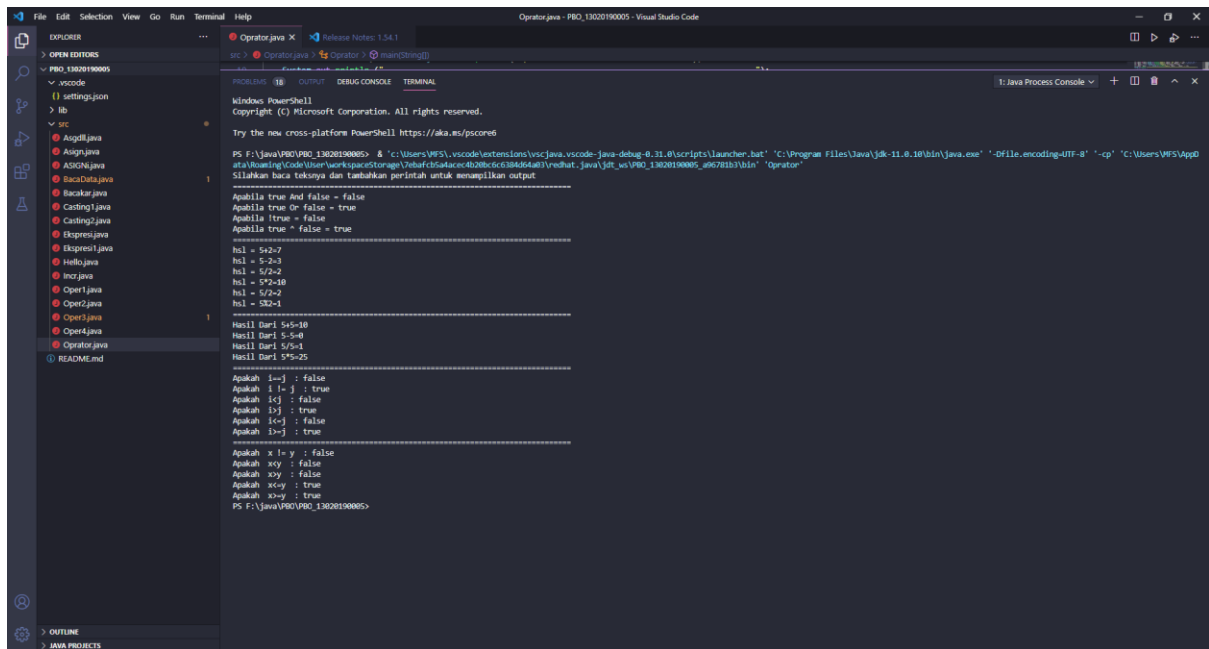
Program ini disimpan dalam class Oper4. Dimana program ini bertujuan untuk menggunakan operator terner dalam penentuan kondisi. Operator terner yang terdapat pada program ini yaitu “?” dan merupakan penulisan singkat dari kondisi if else.

## PROGRAM 16



```
1  /* Contoh pengoperasian variabel bertipe dasar */
2  public class Operator {
3      //
4      // @param args
5      //
6      Run (Debug)
7      // 1000 Auto-generated method stub
8      // KAVAS */
9      boolean Bool1, Bool2, TF; int i,j, hsl;
10     float x,y,res;
11     // algoritma */
12     System.out.println ("Silahkan baca teksnya dan tambahkan perintah untuk menampilkan output");
13     System.out.println ("-----");
14     Bool1 = true; Bool2 = false;
15     TF = Bool1 && Bool2; System.out.println("Apabila " +Bool1+" And " +Bool2+" = "+TF); /* Boolean AND */
16     TF = Bool1 || Bool2; System.out.println("Apabila " +Bool1+" Or " +Bool2+" = "+TF); /* Boolean OR */
17     TF = !Bool1; /* NOT */ System.out.println("Apabila " +Bool1+" = "+TF);
18     TF = Bool1 == Bool2; /* XOR */ System.out.println("Apabila " +Bool1+" = " +Bool2+" = "+TF);
19     System.out.println ("-----");
20     /* operasi numerik */
21     i = 5; j = 2;
22     hsl = i+j; System.out.println("hsl = "+(((int)i)+(((int)j)+" = "+(((int)hsl));
23     hsl = i - j; System.out.println("hsl = "+(((int)i)-(((int)j)+" = "+(((int)hsl));
24     hsl = i / j; System.out.println("hsl = "+(((int)i)/(((int)j)+" = "+(((int)hsl));
25     hsl = i * j; System.out.println("hsl = "+(((int)i)*(((int)j)+" = "+(((int)hsl));
26     hsl = i % j; System.out.println("hsl = "+(((int)i)%(((int)j)+" = "+(((int)hsl)); /* pembagian bulat */
27     hsl = 15; System.out.println("hsl = "+(((int)i)*(((int)j)+" = "+(((int)hsl)); /* sisa modulo */
28     System.out.println ("-----");
29     /* operasi numerik */
30     x = 5; y = 5;
31     res = x + y; System.out.println("Hasil Dari "+(((int)x)+" + "+(((int)y)+" = "+(((int)res));
32     res = x - y; System.out.println("Hasil Dari "+(((int)x)+" - "+(((int)y)+" = "+(((int)res));
33     res = x / y; System.out.println("Hasil Dari "+(((int)x)+" / "+(((int)y)+" = "+(((int)res));
34     res = x * y; System.out.println("Hasil Dari "+(((int)x)+" * "+(((int)y)+" = "+(((int)res));
35     System.out.println ("-----");
36     /* operasi relasional numerik */
37     TF = (i==j); System.out.println("Apakah " +i+" = "+j+" : "+TF);
38     TF = (i<j); System.out.println("Apakah " +i+" < "+j+" : "+TF);
39     TF = (i > j); System.out.println("Apakah " +i+" > "+j+" : "+TF);
40     TF = (i > j); System.out.println("Apakah " +i+" > "+j+" : "+TF);
41     TF = (i <= j); System.out.println("Apakah " +i+" <= "+j+" : "+TF);
42     TF = (i >= j); System.out.println("Apakah " +i+" >= "+j+" : "+TF);
43     System.out.println ("-----");
44     /* operasi relasional numerik */
45     TF = (x != y); System.out.println("Apakah " +x+" != "+y+" : "+TF);
46     TF = (x < y); System.out.println("Apakah " +x+" < "+y+" : "+TF);
47     TF = (x > y); System.out.println("Apakah " +x+" > "+y+" : "+TF);
48     TF = (x <= y); System.out.println("Apakah " +x+" <= "+y+" : "+TF);
49     TF = (x >= y); System.out.println("Apakah " +x+" >= "+y+" : "+TF);
50 }

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
hsl = 5/2=2
hsl = 5/2=1
```



```
src: Oprator.java
Operator > psalm@bongitj

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL
Windows PowerShell
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Try the new cross-platform PowerShell https://aka.ms/powershell

PS F:\Java\PRD\PRD_1302019005> & "C:\Users\WFS\vscode\extensions\vscode.java-debug-0.21.0\script\launcher.bat" "C:\Program Files\Java\jdk-11.0.8\bin\java.exe" "-Dfile.encoding=UTF-8" "-cp" "C:\Users\WFS\AppData\Local\Microsoft\Windows\Workspaces\7dbefc6f6a6cc4b26dc638469a6f1\vscode-java\src_ws\PRD_1302019005_a9c781b3\bin" "Oprator"

Silahkan baca teksnya dan tambahkan perintah untuk menampilkan output

=====
Apabila true And false = false
Apabila true Or false = true
Apabila true & false = false
Apabila true & false = true
=====
hs1 = 5*2*7
hs1 = 5*2*3
hs1 = 5/2*2
hs1 = 5*2*38
hs1 = 5/2*2
hs1 = 5/2-1
=====
Hasil Dari 5*5=10
Hasil Dari 5*5=1
Hasil Dari 5*5=25
=====
Apakah i=j : false
Apakah i != j : true
Apakah i<j : false
Apakah i>j : true
Apakah i<=j : false
Apakah i>=j : true
=====
Apakah x != y : false
Apakah x*y : false
Apakah x/y : false
Apakah x==y : true
Apakah x!=y : true
PS F:\Java\PRD\PRD_1302019005>
```

Program ini disimpan dalam class Oprator. Sebelum program ini selesai, kita terlebih dahulu menambahkan perintah didalam program untuk menyelesaikan program serta mengeluarkan output dari program yang berisi beberapa operasi. Program ini dibuat untuk mengeluarkan output berupa hasil dari Boolean, operasi numerik pada variabel i, j, x dan y, selain itu program ini juga mengeluarkan output berupa hasil dari operasi relasional numerik.