

Classfile /Users/xiaolongchen/workspace/JAVA-000/out/production/JAVA-000/trainingcamp/
week1/exercise1/Hello.class

Last modified Oct 20, 2020; size 1021 bytes

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Compiled from "Hello.java"

public class trainingcamp.week1.exercise1.Hello

minor version: 0

major version: 52

flags: ACC_PUBLIC, ACC_SUPER

Constant pool:

#1 = Methodref	#13.#43	// java/lang/Object.<init>():V
#2 = Double	2.0d	
#4 = Double	10.0d	
#6 = Double	20.0d	
#8 = Fieldref	#44.#45	// java/lang/System.out:Ljava/io/PrintStream;
#9 = Class	#46	// trainingcamp/week1/exercise1/Hello
#10 = Methodref	#9.#43	// trainingcamp/week1/exercise1/Hello.<init>():V
#11 = Methodref	#9.#47	// trainingcamp/week1/exercise1/Hello.bar():D
#12 = Methodref	#48.#49	// java/io/PrintStream.println:(D)V
#13 = Class	#50	// java/lang/Object
#14 = Utf8	<init>	
#15 = Utf8	()V	
#16 = Utf8	Code	
#17 = Utf8	LineNumberTable	
#18 = Utf8	LocalVariableTable	
#19 = Utf8	this	
#20 = Utf8	Ltrainingcamp/week1/exercise1/Hello;	
#21 = Utf8	bar	
#22 = Utf8	()D	
#23 = Utf8	i	
#24 = Utf8	l	
#25 = Utf8	j	
#26 = Utf8	d	
#27 = Utf8	D	
#28 = Utf8	f	
#29 = Utf8	F	
#30 = Utf8	c	
#31 = Utf8	C	
#32 = Utf8	b	
#33 = Utf8	Z	
#34 = Utf8	di	
#35 = Utf8	StackMapTable	
#36 = Class	#46	// trainingcamp/week1/exercise1/Hello
#37 = Utf8	main	
#38 = Utf8	([Ljava/lang/String;)V	
#39 = Utf8	args	
#40 = Utf8	[Ljava/lang/String;	
#41 = Utf8	SourceFile	
#42 = Utf8	Hello.java	
#43 = NameAndType	#14:#15	// "<init>():V
#44 = Class	#51	// java/lang/System
#45 = NameAndType	#52:#53	// out:Ljava/io/PrintStream;
#46 = Utf8	trainingcamp/week1/exercise1/Hello	
#47 = NameAndType	#21:#22	// bar():D

```

#48 = Class          #54          // java/io/PrintStream
#49 = NameAndType    #55:#56      // println:(D)V
#50 = Utf8           java/lang/Object
#51 = Utf8           java/lang/System
#52 = Utf8           out
#53 = Utf8           Ljava/io/PrintStream;
#54 = Utf8           java/io/PrintStream
#55 = Utf8           println
#56 = Utf8           (D)V
{
public trainingcamp.week1.exercise1.Hello();
  descriptor: ()V
  flags: ACC_PUBLIC
  Code:
    stack=1, locals=1, args_size=1  //(操作栈深度=1, 本地变量=1, 参数数量=1)
    0: aload_0                      //在this对应的引用加入栈
    1: invokespecial #1              //调用默认构造函数 Method java/lang/Object."<init>":()V
    4: return
  LineNumberTable:
    line 3: 0                      //对应到源码的行数
  LocalVariableTable:              //本地变量表
    Start Length Slot Name Signature
    0    5    0 this Ltrainingcamp/week1/exercise1/Hello;

public double bar();
  descriptor: ()D
  flags: ACC_PUBLIC                //PUBLIC 方法
  Code:
    stack=4, locals=10, args_size=1. //(操作栈深度=4, 本地变量=10, 参数数量=1)
    0: iconst_3                        //加载常量3
    1: istore_1                       //赋值对应的变量i
    2: iconst_4                      //加载常量4
    3: istore_2                      //赋值对应的变量j
    4: ldc2_w      #2                // double 2.0d
    7: dstore_3                      //赋值对应的变量d
    8: fconst_1                      //加载常量1.0f
    9: fstore    5                  //赋值对应的变量f
   11: bipush    67                 //加载字符C
   13: istore    6                  //赋值对应的变量c
   15: iconst_1                      //加载常量1.0
   16: istore    7                  //赋值对应的变量b
   18: iload_1                       //加载i到栈上
   19: iload_2                       //加载j到栈上
   20: iadd                          //i+j
   21: istore_1                      //存回本地变量表中i
   22: iload_1                      //加载i到栈上

```

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23: iconst_2
24: isub                //i-j
25: istore_1
26: iload_1
27: iload_2
28: imul                //l*j
29: istore_1
30: iload_1
31: i2d                //integer转为double
32: ldc2_w             #2    // double 2.0d
35: ddiv                //l*d
36: dstore             8    //存回本地变量表中di
38: iload              7    //加载b到栈上
40: ifeq              48    //条件不满足就到48行
43: ldc2_w             #4    // double 10.0d
46: dstore             8    //存回本地变量表中di
48: iload              6
50: bipush             66
52: if_icmpeq         70    //条件满足就到70行
55: dload_3
56: ldc2_w             #2    // double 2.0d
59: dcmpl
60: ifeq              70
63: fload              5
65: fconst_1
66: fcmpl
67: ifne              75    //条件不满足就到75行
70: ldc2_w             #6    // double 20.0d
73: dstore             8    //存回本地变量表中di
75: iconst_0
76: istore_2
77: iload_2
78: iconst_5
79: if_icmpge         95    //条件满足就到95行
82: dload              8
84: iload_2
85: i2d
86: dadd
87: dstore             8
89: iinc              2, 1    //j=j+1
92: goto              77
95: iconst_2
96: istore_2
97: dload              8    //加载di到栈上
99: dconst_1           //加载常量1.0f
100: dadd              //相加
101: dstore             8    //存回本地变量表中di
103: iload_2           //加载j到栈上

```

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104: iinc      2, -1      //-1, 赋值给j
107: ifeq      97         //条件满足, 就跳动97行
110: dload      8         //加载di到栈上
112: dreturn                    //返回

```

LineNumberTable:

```

line 6: 0
line 7: 2
line 8: 4
line 9: 8
line 10: 11
line 11: 15
line 13: 18
line 14: 22
line 15: 26
line 16: 30
line 18: 38
line 19: 43
line 22: 48
line 23: 70
line 26: 75
line 27: 82
line 28: 89
line 30: 95
line 32: 97
line 33: 103
line 35: 110

```

LocalVariableTable:

Start	Length	Slot	Name	Signature
0	113	0	this	Ltrainingcamp/week1/exercise1/Hello;
2	111	1	i	I
4	109	2	j	I
8	105	3	d	D
11	102	5	f	F
15	98	6	c	C
18	95	7	b	Z
38	75	8	di	D

StackMapTable: number_of_entries = 6

frame_type = 255 /* full_frame */

offset_delta = 48

locals = [class trainingcamp/week1/exercise1/Hello, int, int, double, float, int, int, double

]

stack = []

frame_type = 21 /* same */

frame_type = 4 /* same */

frame_type = 1 /* same */

frame_type = 17 /* same */

frame_type = 1 /* same */

public static void main(java.lang.String[]);

descriptor: ([Ljava/lang/String;)V

flags: ACC_PUBLIC, ACC_STATIC

Code:

```
stack=3, locals=1, args_size=1
  0: getstatic  #8          // Field java/lang/System.out:Ljava/io/PrintStream;
  3: new        #9          // class trainingcamp/week1/exercise1/Hello
  6: dup
  7: invokespecial #10        // Method "<init>":()V
 10: invokevirtual #11        // Method bar:()D
 13: invokevirtual #12        // Method java/io/PrintStream.println:(D)V
 16: return
LineNumberTable:
  line 39: 0
  line 40: 16
LocalVariableTable:
  Start Length Slot Name  Signature
    0      17     0 args  [Ljava/lang/String;
}
SourceFile: "Hello.java"
```