CFL CW4

1. FIB

.class public fib.fib  
.super java/lang/Object  
  
.method public <init>()V  
 aload\_0  
 invokenonvirtual java/lang/Object/<init>()V  
 return  
.end method  
  
.method public static write(I)V  
 .limit locals 1  
 .limit stack 2  
 getstatic java/lang/System/out Ljava/io/PrintStream;  
 iload 0  
 invokevirtual java/io/PrintStream/println(I)V  
 return  
.end method  
  
.method public static read()I  
 .limit locals 10  
 .limit stack 10  
  
 ldc 0  
 istore 1 ; this will hold our final integer  
Label1:  
 getstatic java/lang/System/in Ljava/io/InputStream;  
 invokevirtual java/io/InputStream/read()I  
 istore 2  
 iload 2  
 ldc 10 ; the newline delimiter  
 isub  
 ifeq Label2  
 iload 2  
 ldc 32 ; the space delimiter  
 isub  
 ifeq Label2  
  
 iload 2  
 ldc 48 ; we have our digit in ASCII, have to subtract it from 48  
 isub  
 ldc 10  
 iload 1  
 imul  
 iadd  
 istore 1  
 goto Label1  
Label2:  
 ;when we come here we have our integer computed in local variable 1  
 iload 1  
 ireturn  
.end method  
  
.method public static main([Ljava/lang/String;)V  
 .limit locals 200  
 .limit stack 200  
  
 invokestatic fib/fib/read()I  
istore 0  
ldc 0  
istore 1  
ldc 1  
istore 2  
ldc 0  
istore 3  
  
Loop\_begin\_0:  
  
iload 0  
ldc 0  
if\_icmple Loop\_end\_1  
iload 2  
istore 3  
iload 1  
iload 2  
iadd  
istore 2  
iload 3  
istore 1  
iload 0  
ldc 1  
isub  
istore 0  
goto Loop\_begin\_0  
  
Loop\_end\_1:  
  
iload 1  
invokestatic fib/fib/write(I)V  
  
  
 return  
  
.end method

FACT

.class public fact.fact  
.super java/lang/Object  
  
.method public <init>()V  
 aload\_0  
 invokenonvirtual java/lang/Object/<init>()V  
 return  
.end method  
  
.method public static write(I)V  
 .limit locals 1  
 .limit stack 2  
 getstatic java/lang/System/out Ljava/io/PrintStream;  
 iload 0  
 invokevirtual java/io/PrintStream/println(I)V  
 return  
.end method  
  
.method public static read()I  
 .limit locals 10  
 .limit stack 10  
  
 ldc 0  
 istore 1 ; this will hold our final integer  
Label1:  
 getstatic java/lang/System/in Ljava/io/InputStream;  
 invokevirtual java/io/InputStream/read()I  
 istore 2  
 iload 2  
 ldc 10 ; the newline delimiter  
 isub  
 ifeq Label2  
 iload 2  
 ldc 32 ; the space delimiter  
 isub  
 ifeq Label2  
  
 iload 2  
 ldc 48 ; we have our digit in ASCII, have to subtract it from 48  
 isub  
 ldc 10  
 iload 1  
 imul  
 iadd  
 istore 1  
 goto Label1  
Label2:  
 ;when we come here we have our integer computed in local variable 1  
 iload 1  
 ireturn  
.end method  
  
.method public static main([Ljava/lang/String;)V  
 .limit locals 200  
 .limit stack 200  
  
 invokestatic fact/fact/read()I  
istore 0  
ldc 1  
istore 1  
iload 0  
istore 2  
  
Loop\_begin\_0:  
  
iload 1  
iload 0  
if\_icmpge Loop\_end\_1  
iload 2  
iload 1  
imul  
istore 2  
ldc 1  
iload 1  
iadd  
istore 1  
goto Loop\_begin\_0  
  
Loop\_end\_1:  
  
iload 2  
invokestatic fact/fact/write(I)V  
  
  
 return  
  
.end method