

## Ex6:

```
C:\Windows\System32\cmd.exe
Microsoft Windows [Version 6.1.7601]
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C:\PR2\bin\t3>javap Ex1.class
Compiled from "Ex1.java"
public class t3.Ex1 {
    public t3.Ex1();
    public static void main(java.lang.String[]);
}

C:\PR2\bin\t3>javap -c Ex1.class
Compiled from "Ex1.java"
public class t3.Ex1 {
    Code:
        0: aload_0
        1: invokespecial #8          // Method java/lang/Object."<init>":
    (<)U
        4: return

    public static void main(java.lang.String[]);
    Code:
        0: ldc         #16           // String class Hello < public stati
c void main (String[] args) { System.out.println("\Hello world!\"); } }
        2: astore_1
        3: aload_1
        4: invokestatic #18         // Method com/github/javaparser/Java
Parser.parse:(Ljava/lang/String;)Lcom/github/javaparser/ast/CompilationUnit;
        7: astore_2
        8: getstatic  #24           // Field java/lang/System.out:Ljava/
io/PrintStream;
        11: aload_2
        12: invokevirtual #30        // Method java/io/PrintStream.printl
n:(Ljava/lang/Object;)V
        15: return
}

C:\PR2\bin\t3>javap -verbose Ex1.class
Classfile /C:/PR2/bin/t3/Ex1.class
  Last modified Apr 10, 2020; size 849 bytes
  MD5 checksum 94d130a81ffaa59ccd9b46bc7100f8e5
  Compiled from "Ex1.java"
public class t3.Ex1
  minor version: 0
  major version: 52
  flags: ACC_PUBLIC, ACC_SUPER
Constant pool:
#1 = Class                #2 = t3/Ex1          // t3/Ex1
#2 = Utf8                 t3/Ex1
#3 = Class                #4 = java/lang/Object // java/lang/Object
#4 = Utf8                 java/lang/Object
#5 = Utf8                 <init>
#6 = Utf8                 (<)U
#7 = Utf8                 Code
#8 = Methodref            #3.#9                // java/lang/Object."<init>":(<)U
#9 = NameAndType          #5:#6                // "<init>":(<)U
#10 = Utf8                LineNumberTable
#11 = Utf8                LocalVariableTable
#12 = Utf8                this
#13 = Utf8                Lt3/Ex1;
```

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C:\PR2\bin\t3>javap -verbose Ex1.class
Classfile /C:/PR2/bin/t3/Ex1.class
  Last modified Apr 10, 2020; size 849 bytes
  MD5 checksum 94d130a81ffaa59ccd9b46bc7100f8e5
  Compiled from "Ex1.java"
public class t3.Ex1
  minor version: 0
  major version: 52
  flags: ACC_PUBLIC, ACC_SUPER
Constant pool:
#1 = Class                #2          // t3/Ex1
#2 = Utf8                 t3/Ex1
#3 = Class                #4          // java/lang/Object
#4 = Utf8                 java/lang/Object
#5 = Utf8                 <init>
#6 = Utf8                 <>U
#7 = Utf8                 Code
#8 = Methodref            #3.#9       // java/lang/Object."<init>":<>U
#9 = NameAndType          #5:#6       // "<init>":<>U
#10 = Utf8                LineNumberTable
#11 = Utf8                LocalVariableTable
#12 = Utf8                this
#13 = Utf8                Lt3/Ex1;
#14 = Utf8                main
#15 = Utf8                <Ljava/lang/String; >U
#16 = String              #17       // class Hello { public static void ma
in <String[] args> {   System.out.println("<Hello world!\<"); } }
#17 = Utf8                class Hello { public static void main <String[] args>
{   System.out.println("<Hello world!\<"); } }
#18 = Methodref            #19.#21    // com/github/javaparser/JavaParser.pa
rse:<Ljava/lang/String; >Lcom/github/javaparser/ast/CompilationUnit;
#19 = Class                #20       // com/github/javaparser/JavaParser
#20 = Utf8                com/github/javaparser/JavaParser
#21 = NameAndType          #22:#23    // parse:<Ljava/lang/String; >Lcom/gith
ub/javaparser/ast/CompilationUnit;
#22 = Utf8                parse
#23 = Utf8                <Ljava/lang/String; >Lcom/github/javaparser/ast/Compil
ationUnit;
#24 = Fieldref            #25.#27    // java/lang/System.out:Ljava/io/Print
Stream;
#25 = Class                #26       // java/lang/System
#26 = Utf8                java/lang/System
#27 = NameAndType          #28:#29    // out:Ljava/io/PrintStream;
#28 = Utf8                out
#29 = Utf8                Ljava/io/PrintStream;
#30 = Methodref            #31.#33    // java/io/PrintStream.println:<Ljava/
lang/Object; >U
#31 = Class                #32       // java/io/PrintStream
#32 = Utf8                java/io/PrintStream
#33 = NameAndType          #34:#35    // println:<Ljava/lang/Object; >U
#34 = Utf8                println
#35 = Utf8                <Ljava/lang/Object; >U
#36 = Utf8                args
#37 = Utf8                [Ljava/lang/String;
#38 = Utf8                progText
#39 = Utf8                Ljava/lang/String;
#40 = Utf8                codeUnit
#41 = Utf8                Lcom/github/javaparser/ast/CompilationUnit;
#42 = Utf8                SourceFile

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#37 = Utf8          [Ljava/lang/String;
#38 = Utf8          progText
#39 = Utf8          Ljava/lang/String;
#40 = Utf8          codeUnit
#41 = Utf8          Lcom/github/javaparser/ast/CompilationUnit;
#42 = Utf8          SourceFile
#43 = Utf8          Ex1.java

<
  public t3.Ex1();
    descriptor: ()V
    flags: ACC_PUBLIC
    Code:
      stack=1, locals=1, args_size=1
        0: aload_0
        1: invokespecial #8          // Method java/lang/Object."<init>"
      :<>V
        4: return
    LineNumberTable:
      line 5: 0
    LocalVariableTable:
      Start Length Slot Name Signature
        0      5      0  this  Lt3/Ex1;

  public static void main(java.lang.String[]);
    descriptor: ([Ljava/lang/String;)V
    flags: ACC_PUBLIC, ACC_STATIC
    Code:
      stack=2, locals=3, args_size=1
        0: ldc          #16          // String class Hello { public sta
        2: astore_1
        3: aload_1
        4: invokestatic #18          // Method com/github/javaparser/Ja
        7: astore_2
        8: getstatic   #24          // Field java/lang/System.out:Ljav
        11: aload_2
        12: invokevirtual #30       // Method java/io/PrintStream.prin
        15: return
    LineNumberTable:
      line 8: 0
      line 18: 3
      line 21: 8
      line 22: 15
    LocalVariableTable:
      Start Length Slot Name Signature
        0      16      0  args  [Ljava/lang/String;
        3      13      1  progText  Ljava/lang/String;
        8       8      2  codeUnit  Lcom/github/javaparser/ast/CompilationUni
t;
}
SourceFile: "Ex1.java"

C:\PR2\bin\t3>
```