

# Java Compilation Process Questions

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## 1 Question 1

Fill out the blanks for the Java Compilation Process.

Java <b>Source Code</b>	<b>.java</b> file
Java <b>Compiler</b>	(e.g. javac)
Java <b>Byte Code</b>	<b>.class</b> file
Java <b>Virtual Machine</b>	(Java Interpreter)

## 2 Question 2

```
public static void main(String[] args)
```

Given the line of code above, explain what each of the following keywords means in the context of Java.

- public: allows universal access
- static: method will be called using a class name
- void: does not return anything
- main: the name of the method

## 3 Question 3

In Java, is it absolutely necessary for the file name to be the same as the class name? If so, explain why.

Yes because the filename should always reflect the public class defined within that file. Otherwise, you will get a compiler error.

## 4 Question 4

If a programmer has the source code for a Java program already written, and they wish to run that program, they will need both a **compiler** and **interpreter**.

Briefly explain what a Java compiler and a Java interpreter will do:

The Java compiler will run through the code and check for errors. All at once, it will produce a machine language program that can be executed. The Interpreter will run through the given code one line at a time and executes immediately.

## 5 Question 5

Explain three different advantages of Java using bytecode rather than native code.

Portability, Security, Size