- 1. What is the Java Virtual Machine? What is Bytecode?
  - a. A Java virtual machine (JVM) is an abstract computing machine that enables a computer to run a Java program(Wikipedia)
  - b. Java bytecode is the instruction set of the Java virtual machine.(Wikipedia)
- 2. What is the Java Classpath?
  - a. The CLASSPATH variable is one way to tell applications, including the JDK tools, where to look for user classes. (<u>Java documentation</u>)
- 3. How do you compile and run your java program without the help of an Integrated Development Environment (IDE) (e.g., an IDE like Eclipse)?
  - a. By running it with the help of java in the command prompt. Specify the path to the entry class and using "Javac" (Stackoverflow, Java documentation)
- 4. What is a JAR file?
  - a. In software, JAR (Java Archive) is a package file format typically used to aggregate many Java class files and associated metadata and resources (text, images, etc.) into one file to distribute application software or libraries on the Java platform.(Wikipedia)
- 5. How do you declare the starting point of a Java application?
  - a. By using main() (Stackoverflow)
- 6. What is a package? Why is important to declare classes inside packages?
  - a. A package is a namespace that organizes a set of related classes and interfaces(<u>Java Documentation</u>)
- 7. What is an interface? Why is it important to not change them?
  - a. interface is a group of related methods with empty bodies(<u>Java</u> documentation)
  - b. If you change any functionality in an interface, all things that use the interface will probably break and stop working.

- 8. Which visibility levels are available in Java? What is the default visibility for classes, methods, and fields?
  - a. Default visibility in java is known as "package-private",
    "Public", "Protected", "Package-Private", "Private" is also availble to choose from. (Java Documentation)
- 9. In the context of Java, what is an Exception? And what is an Error?
  - a. Exceptions occurs when an error occurs within a method. These are usually handled by the code. Errors are abnormal and are often caused by rare errors not on code level.(Java Documentation, Java Documentation)
- 10. What happened if your program terminates with an *OutOfMemoryError*, or *NoClassDefFoundError* or *NullPointerException*?
  - a. *OutOfMemoryError* means that the garbagecollector couldn't allocate more memory(<u>Java documentation</u>)
- 11. How do you handle Exceptions in your program?
  - a. A combination of while loops to keep asking for input where needed, and using try/catch were a exception might be thrown.
- 12. Why is it important to test your code/application/product, before you deliver it to your customer/boss/teacher?
  - a. To ensure a quality release without bugs and dead/unneccecary code.
- 13. What is JavaDoc? How do you write documentation with it?
  - a. JavaDoc is a documentation system developed by Sun for Java, it reads comments in the code of a document and creates documentations based on the comments found.

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