

9. Ten Parts of Byte Code

• The first four byte of every Java class file are its magic number 0XCAFEBABE.

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• The magic no. makes non-Java class files easier to identify. If a file doesn't start with 0XCAFEBABE, it is ~~is~~ definitely is not a Java class file.

• The second 4 bytes of the class file contains the minor & major version numbers.

• As java tech. evolves, new features may occasionally be added to the Java class format. Each time the class file format changes, the version numbers will change as well.

To ~~see~~ JVM, the version no. identify the format to which a particular file adheres.

• JVM will generally be able to load class files with a given major version & a range of minor version nos. JVM must reject class files with ver. nos. outside their valid range.

- For Class files generated by 1.04 or 1.1 compilers, the major version no. is 45. The minor version no. is 3.

Class File

There are 10 basic sectⁿ to the Java Class File Structure:

1. Magic Number: This is currently 0xCAFEBABE. ~~0xCAFEBABE~~
2. Version of class File Format: The minor 4 major versions of the class file.
3. Constant Pool: Pool of constants ~~for~~ for the class.
4. Access Flags: For example whether class is abstract, static etc.
5. This class: The name of current class.
6. Super class: The name of super class.

7. Interfaces: Any interfaces in the class

8. Fields: Any fields in the class

9. Methods: " Methods " " " ,

10. Attributes: Any attributes of the class

(for ex. the name of newspaper etc).

Mnemonic: My Very Cute Animal Turning
Savage In Full Moon Areas.