Java Features/Buzz words

Java Buzz words can also be reprsented as features of java.These features are easy to understand.
The features of java are:-
*Simple:-Java language is simple because:
*syntax is based on C++ (so easier for programmers to learn it after C++).
*removed many confusing and/or rarely-used features e.g., explicit pointers, operator overloading etc.
* No need to remove unreferenced objects because there is Automatic Garbage Collection in java.

*Object Oriented:-Object oriented means we organize our software as a combination of different types of objects that incorporates both data and behaviour.
*Object oriented programming is a methodology that simplify software development and maintenance by providing some rules.

*Portable:-We may carry the java bytecode to any platform.

*Platform independent:- A platform is the hardware or software environment in which a program runs.
* There are two types of platforms software-based and hardware-based. Java provides software-based platform.
* The Java platform differs from most other platforms in the sense that it is a software-based platform that runs on the top of other hardware-based platforms. It has two components:
a)Runtime Environment
b)API

*Secured:- Java is secured because:
* No explicit pointer
* Java Programs run inside virtual machine sandbox

*Robust:-Robust simply means strong.These points makes java robust:-

* Java uses strong memory management.

* There are lack of pointers that avoids security problem.
* There is automatic garbage collection in java. There is exception handling and type checking mechanism in java.

*Architecture neutral:-There is no implementation dependent features e.g. size of primitive types is fixed.
* In C programming, int data type occupies 2 bytes of memory for 32-bit architecture and 4 bytes of memory for 64-bit architecture.
* But in java, it occupies 4 bytes of memory for both 32 and 64 bit architectures.

*Dynamic:-Java is considered as Dynamic because of Bytecode. A source code writen in one platform, the same code can be executed in any platform.
* It also loads the class files at runtime. anything that happes at runtime is considered as Dynamic.

*Interpreted:-Java is a compiled programming language, but rather than compile straight to executable machine code, it compiles to an intermediate binary form called JVM byte code.
* The byte code is then compiled and/or interpreted to run the program

*High Performance:-Java is faster than traditional interpretation since byte code is "close" to native code still somewhat slower than a compiled language (e.g., C++)

*Multithreaded:-A thread is like a separate program, executing concurrently.
* We can write Java programs that deal with many tasks at once by defining multiple threads.
* The main advantage of multi-threading is that it doesn't occupy memory for each thread. It shares a common memory area.
* Threads are important for multi-media, Web applications etc.

*Distributed:-We can create distributed applications in java. RMI and EJB are used for creating distributed applications.
* We may access files by calling the methods from any machine on the internet.