Java Programming Language

The Java **programming** language was developed by Sun Microsystems in the early 1990s. Although it is primarily used for Internet-based applications, Java is a simple, efficient, general-purpose language. Java was originally designed for embedded **network** applications running on multiple platforms. It is a portable, object-oriented, interpreted language.

Java is vantages is its set of security features which protect a PC running a Java program not only from problems caused by erroneous code but also from malicious programs (such as viruses). You can safely run a Java applet downloaded from the Internet, because Java's security features prevent these types of applets from accessing a PC's hard drive or network connections. An applet is typically a small Java program that is **embedded** within an HTML page.

Java can be considered both a compiled and an interpreted language because its source code is first compiled into a binary byte-code. This byte-code runs on the Java Virtual Machine (JVM), which is usually a software-based interpreter. The use of compiled byte-code allows the **interpreter** (the virtual machine) to be small and efficient (and nearly as fast as the CPU running native, compiled code). In **addition**, this byte-code gives Java its **portability**: it will run on any JVM that is correctly implemented, regardless of computer hardware or software configuration. Most Web browsers (such as Microsoft Internet Explorer or Netscape Communicator) contain a JVM to run Java applets.