Article Side

Private JVM Tomcat Hosting

by Angela Jones

Article published on January 14th 2012 | Web Hosting

Java Virtual Machine (JVM) is a software which is implemented over hardware either virtually or non-virtually on certain Operating Systems. In such an environment, Java bytecode is executed, with lots of special features as â€˜root causeâ€™ debugging for each and every software error, automatic exception handling.

Java bytecode is an execution component of Java Platform, by Sun Microsystems for over 5.5 billion devices. The best part of Java bytecode is that, it is compiled in Java and can also be compiled from other programming languages. Oracle JVM is written in C++ language.

The use of similar bytecode for all JVMs on all platforms, which can be described as â€œwrite once, run (or compile) anywhereâ€• language is also described as cross-platform languages; which makes JVM a crucial component of Java platform.

The Private JVM (Java Virtual Machine) will have a separate or dedicated Tomcat instance running within the JVM. This uses more sophisticated configuration which is not the case for shared Tomcat Hosting (Instance).

The Java Virtual Machine checks all bytecode before it is complied or executed. This consists primarily of three types of checks:

o Branches are always to right locations

o Data is initialized at place and references are always type-safe

o Access to private data and methods is precisely controlled.

The first two of these checks take place during the "verification" step that occurs when a class is loaded and ready for use. The third check is performed dynamically, where data methods of a class are first accessed by another class.

In case of JVM, memory protection is achieved without any Memory management Unit (MMU), thus making JVM very efficient for memory protection.

Heap

Heap is the area of memory used by the Java Virtual Machine for dynamic memory allocation. The heap is classified into generations:

- The young generations (Short lived objects, built and destroyed)

- Old generations (Object persist longer, other name tenured generations)

- Permanent generations(metadata and class definitions)

The specification for the JVM is written in a book, known as "blue book". The preface states:

â€œWe intend that this specification should sufficiently document the Java Virtual Machine to make possible compatible clean-room implementations. Oracle provides tests that verify the proper

operation of implementations of the Java Virtual Machine.â€•

Article Source:
http://www.articleside.com/web-hosting-articles/private-jvm-tomcat-hosting.htm - Article Side

Angela Jones - About Author:
InstantAppz allows you to easily add or deploy any of the most popular web applications available through your control panel. No more having to worry about the hassles of configuring the software installs. Apache a Tomcat Hosting is an open source software implementation of the Java Servlet and JavaServer Pages technologies. New era a Cloud Hosting has been creating quite a buzz around these days.

Article Keywords:
Tomcat Hosting, Specification of JVM

You can find more free articles on Article Side. Sign up today and share your knowledge to the community! It is completely FREE!