

The Difference Between JDK, JRE, and JVM

To understand the difference between these three most commonly confusing acronyms in Java programming, one must first understand the meaning of each one of them individually.

The Java Development Kit (JDK) is a software development environment for Java application development. In a simple term, the JDK is a tool in which Java developers develop, compile, and run Java applications.

While the other acronyms, like the JRE, which stands for Java Runtime Environment, have only one purpose, which is to run Java applications. It means that if there is a need only to run an already developed Java application, you will only need the JRE to run it and not the JDK.

The JVM, an acronym that stands for Java Virtual Machine, is an interpreter to execute Java programs (The byte code) line by line. It merely provides the environment for the Java code execution.

With the help of this diagram obtained from <https://automationstepbystep.com/>



It clearly shows the differences between JDK, JRE, and JVM.

The JRE can be taken as a combination of JVM plus few libraries set (which is needed for the Java code execution). And JVM contains JRE but plus the development tools.