

### Okoye-Nobert Chukwuebuka (Assignment1 Question2)

Difference between JDK (Java development kit), JRE (Java run time environment) and JVM (Java virtual machine)

Firstly, JDK (Java development kit), JRE (Java run time environment) and JVM (Java virtual machine) are the three core technological packages used in Java programming. I'd would give my understanding on what these three packages serve in programming with Java.

The **JDK** (Java development kit) is a full featured software development kit (**SDK**) for Java. The SDK is a collection of software development tools in one installable package. This is to say that JDK has the ease to create applications by having tools such as the compilers and the debuggers which helps in the development of applications. JDK mainly serves the purpose of developing a Java program.

The **JRE** (Java Runtime Environment) as the name implies is an environment or packages and also a part of the **JDK** (Java development kit) that contains all the necessary set of tools required to run a compiled Java program/application. It contains the java class libraries, the java class loader and the java virtual machine(**JVM**).

The **JVM** (Java virtual machine) is a part Java Runtime Environment. It is virtual machine system that compiles and interprets Java binary code(bytecode) for a computer processor to understand in order to perform/run Java programs.

The clear **difference** between Java Development Kit and the Java Runtime Environment is that **JDK** houses the JRE plus it is a package of tools which serves the purpose of developing Java program whereas the **JRE** is a package of tools for compiling Java code and both JDK and JRE contain **JVM** which enables users to run programs written in Java.