Group Members:

Caleb Mugisha
Samuel Anumudu

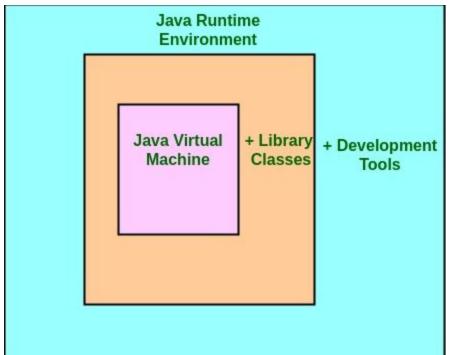
Prompt: In your own words, what is the difference between JDK (Java development kit, JRE (Java runtime environment), and JVM (Java virtual machine).

Java Runtime Environment(JRE): is a software(or a set of tools) that enables users to **only run** (**not develop**) Java applications. It provides the minimum requirements to run a java application; it consists of the Java Virtual Machine (JVM), core classes, and supporting files.

The Java Development Kit (JDK) is a software development environment used for **developing and running** Java applications. It includes the Java Runtime Environment (JRE), an interpreter/loader (Java), a compiler (javac), an archiver (jar), a documentation generator (Javadoc) and other tools needed in Java development.

Java Virtual Machine is a software whose purpose is to allow Java programs to run on any machine(operating system independent) and more importantly to manage and optimize the program's memory. Shortly it runs the java code line by line therefore also known to be its interpreter.

The three topics discussed above sure sounds to be the same, but with the help of the following diagram, a better understanding will be brought to the reader.



Courtesy of geeksforgeeks.com

In short:

JRE = JVM + Library Classes

JDK = JRE + Development Tools

<u>Reference</u>

- 1. https://www.geeksforgeeks.org/differences-jdk-jre-jvm/
- 2. https://www.infoworld.com/article/3272244/what-is-the-jvm-introducing-the-java-virtual-machine.html