JVM stands for Java Virtual Machine which is a run-time environment for the compiled java class files It is called a virtual machine because it doesn't physically exist. Computer only understand machine language. JVM is interpreter of bytecodes for specific platform.

JRE stands for Java Runtime Environment. JRE is what we need to run a Java program and contains set of libraries and other files that JVM uses at run time. JRE doesn’t compile java source codes. JVM doesn’t understand everything. JRE helps JVM. it physically exists.

JRE contains JVM and Library Classes.

JDK stands for Java Development Kit. JDK is what we need to compile Java source code and contains JRE, development tools. It physically exists. With development tools we do our job easier.

JDK contains JRE and Development tools

(When you say JDK and JRE physically exist, that is what you probably mean. They exist in the form of files on your system.

JVM does not physically exist because, unlike your computer, which exists in the form of a physical box with motherboard and chips, the JVM exists in memory.)