There are several things that I have learnt and interpreted from the lesson on the Java compilation process. First, Java does not actually compile into an executable file, but instead uses a Java Virtual Machine (JVM) and is run during runtime. Upon further research, the benefit of using this JVM is that the code is compatible with any machine that has JVM, meaning the programmer just has to write the program once to run anywhere with any machine that has JVM installed. Another reason JVM is used is security reasons, as programs ran on JVM tends to be less susceptible to malicious activity.

Source:

Amit Verma, May 22, 2014, *How Does A Java Virtual Machine Works?, https://www.whizlabs.com/blog/how-does-a-java-virtual-machine-works/#:~:text=The%20primary%20advantage%20of%20Java,from%20this%20it%20provides%20security.*