Scala-Java Conversion Process

While Scala and Java are both JVM (Java Virtual Machine) languages and have many similarities, there are several key differences that must be changed when translating between the two.

Step 1. Identifying the features in your Scala program that only exist in Scala and need to be translated. By determining these differences first, you know exactly what needs to be changed and don't need to worry about searching later, making the process a bit easier.

Step 2. If your program needs to utilize a Java-specific feature such as taking an input or using math functions, add lines such as "import java.util.Scanner" and "import java.lang.Math" so that you are able to use those features.

Step 3. Create a public class to encapsulate the rest of your code.

Step 4. Change the names of each function and their syntax. In Java, 'def' won't work for functions/methods, so be sure to add if the function is public or private, static or not static, the type used in the method, the name of the method, and any other arguments.

Step 5. If there is any case of a 'println' in your code, that should be changed to 'System.out.println' so that it functions with Java.

Step 6. Wherever there is a 'val' or 'var' with a variable, take them out as they can't be used in Java to determine immutability. Instead, just use the variable type and the name of the variable.

Step 7. Make sure to add proper punctuation. Java needs lines to end with semicolons, so make sure there is one at the end of a line of code so that it runs properly.

Step 8. Test the code. Go into the terminal and run your code, and if any issues arise, follow the error message or go back through this guide to try and fix any missed errors.