

Examples of Code Re-Use

The first example of code reuse is from the collections library in Java importing `java.util.Collections`. It is found in the class `SortedStack` and we use the `sort()` method from it. This is meant to prevent the creation of a sorting algorithm when one is already present for us to use that is sufficiently fast for this purpose. The second example can be found in the same class `SortedStack` and we import `java.util.Stack`. This allows us to easily create the stack without having to manage all the pointers or or the data contained in the list.

Next we have the import of `java.util.Scanner` which lets me avoid having to create an input stream manually this is found in the classes `Main` and `GetUserInput`. I also re-used `java.lang.System` when I used `System.out` and `println()` in the `GetUserInput` and `PrintStack` classes. This code re-use allowed me to call a pre-made method `println()` that did all the work of outputting to the terminal for me. I also made use of `java.lang.String` in `Main` and particularly in `SortedStack` where I used its built in function `split()`. This code re-use let me avoid having to custom code string parsing logic. I also made use of `java.lang.Integer` in the class `SortedStack` when I used the pre-made method of `parseInt()` which avoided me coding integer parsing logic. I also used `java.lang.NumberFormatException` in `SortedStack` as well when I had the error loop to catch bad input. This would handle the exception raising during code execution for me without me having to make any custom methods.