

## #2: Write Simple Units of Code

### The guideline

#### Do:

- Limit the number of branch points to 4  
(if, case, ?, &&, ||, while, for, catch = conditions)

#### By:

- Splitting complex units into simpler ones
- Avoiding complex units

#### Rationale:

- Easy to test
- Easy to understand
- Easy to modify

#### Positive effects on other guidelines:

- Unit Size
- Unit Interfacing

## #2: Write Simple Units of Code

How you can measure it

Count the cyclomatic complexity:

- Every branch point (if, case, for, &&, ||) is counted, and we add 1 to the total

```
1  /**
2   * Replaces all occurrences of a word in a given string with blanks.
3   */
4  public static String clearAllMatches(String input, String word) {
5      String result = "";
6      int startIndex = 0;
7      int matchIndex = input.indexOf(word);
8
9      while (matchIndex != 0) {
10         result += input.substring(startIndex, matchIndex);
11         // Insert spaces as filler
12         for (int i = 0; i < word.length(); i++) {
13             result += " ";
14         }
15         startIndex = matchIndex + word.length();
16         matchIndex = input.indexOf(word, startIndex);
17     }
18
19     result += input.substring(startIndex);
20     return result;
21 }
```

2 branch points  
+ 1  
= cyclomatic  
complexity of 3