

Exercise 1

Listing 1: Code Example Lines of Code

```
1 public static Map<String, Integer> analyzeText(String text)
2 {
3     //If something is invalid, return with Exception
4     if (text == null || text.isEmpty()) {
5         throw new IllegalArgumentException("Text cannot be
6         null or empty");
7     }
8     String[] words = text.split("\\s+");
9     Map<String, Integer> wordCount = new HashMap<>();
10
11     for (String word : words) {
12         word = word.replaceAll("[^a-zA-Z]", "").toLowerCase
13         ();
14         if (!word.isEmpty()) {
15             wordCount.put(word, wordCount.getOrDefault(word,
16             0)+1);
17         }
18     }
19     return wordCount;
20 }
```

LOC → LINES of code, every line counts → 18

NON-BLANK LOC → all non-blank lines → 15

SLOC → source lines of code - 10

LLOC → logical - number of program statements - 9

For this program, density of comments is little low, because I found, that normal density should be 20-30%