Ryland Bruce – Bakr.io Task

This note provides some detail on the process I went through when completing the Product Team task.

**Assumptions and Decisions**

To make bread type identification more accurate, words that describe bread had to be separated into two groups. Terms that can be interchanged with bread such as “Naan” and “Baguette” were put in a different dictionary to the words like “rye”, “potato” and “soda” which aren’t necessarily bread related. The consistently bread related terms like “Naan” and “Baguette” were always noted if found within the text and documented as describing the type of bread, but the other terms were only considered as bread related if they were used in a sentence containing “bread.” This means that when “rye” is used in a sentence like “The rye crop thrived.” it isn’t counted as “bread related” because it doesn’t refer to bread. However, in sentences that include “rye bread” or “the bread was rye”, “rye” would be counted as bread related. This works to filter out most uses of these words that don’t describe bread, but in rare cases where these words are used alongside “bread” like “they ate bread and farmed the rye” rye would be incorrectly documented as describing bread.

Another assumption that I made was that “bread” wouldn’t have strange uppercase letters like “brEAd” in the text file. In the program these variations are still identified and counted but aren’t altered to “/brEAd/” to highlight them when they’re returned. Additionally, when separating the text file into a list of sentences, I decided that the symbols “.?!” would indicate the end of the sentence and worked under the assumption that honorifics, websites, and abbreviations that use periods wouldn’t be in the text files.

**Testing**

The following tests were performed on the code. They all tested different parts of the code’s functionality and returned what they were supposed to.

Test 1 - No "bread"

There he got out the luncheon-basket and packed a simple meal, in which, remembering the stranger's origin and preferences.

Test 2 - One "bread"

There he got out the luncheon-basket and packed a simple meal, in which, remembering the stranger's origin and preferences, he took care to include a yard of long French bread, a sausage out of which the garlic sang, some cheese which lay down and cried, and a long-necked straw-covered flask wherein lay bottled sunshine shed and garnered on far Southern slopes.

Test 3 - Sentences with "bread"

Christ knew that by bread alone you cannot reanimate man. If there were no spiritual life, no ideal of Beauty, man would pine away, die, go mad, kill himself or give himself to pagan fantasies. And as Christ, the ideal of Beauty in Himself and his Word, he decided it was better to implant the ideal of Beauty in the soul. If it exists in the soul, each would be the brother of everyone else and then, of course, working for each other, all would also be rich. Whereas if you give them bread, they might become enemies to each other out of boredom.

Test 4 - Multiple "bread" in a sentence

Christ knew that by bread alone you cannot reanimate bread. If there were no spiritual life, no ideal of Beauty, man would pine away, die, go mad, kill himself or give himself to pagan fantasies. And as Christ, the ideal of Beauty in Himself and his Word, he decided it was better to implant the ideal of Beauty in the soul. If it exists in the soul, each would be the brother of everyone else and then, of course, working for each other, all would also be rich. Whereas if you give them bread, they might become enemies to each other out of boredom.

Test 5 - Bread type and "bread"

Christ knew that by bread alone you cannot reanimate focaccia.

Test 6 - Different Bread Types

Christ knew that by bread alone you cannot reanimate focaccia. If there were no spiritual life, no ideal of cornbread, man would pine away, die, go mad, kill himself or give himself to Pita.

Test 7 - Bread related adjectives

Imagine a famine. Now imagine a piece of rye bread. Both of these things are real but you happen to be in the same room with only one of them. Put yourself into a different room, that’s what the mind is for.

Test 8 - Bread related Adjectives used in a different sentence (making them no longer "bread related")

Imagine a bread. Now imagine a piece of potato. Both of these things are real but you happen to be in the same room with only one of them. Put yourself into a different room, that’s what the mind is for.

Test 9 - Arbitrary bread suggestion ("hungry")

The dwarf bread was brought out for inspection. But it was miraculous, the dwarf bread. No one ever went hungry when they had some dwarf bread to avoid.

Test 10 - Type of Bread, Adjective Bread and Arbitrary suggestions ("the" and "boots")

The dwarf baguette was brought out for inspection. But it was miraculous, the dwarf multigrain bread. No one ever went hungry when they had some dwarf bread to avoid. You only had to look at it for a moment, and instantly you could think of dozens of things you'd rather eat. Your boots, for example. Mountains. Raw sheep. Your own foot.

Test 11 - Types of Bread but no "bread"

The dwarf focaccia was brought out for inspection. But it was miraculous, the dwarf focaccia. No one ever went hungry when they had some dwarf focaccia to avoid.