Jonathan Chiu (A12113428), Adrian Cordova y Quiroz (A12010305)

CSE 100, Alvarado

Winter 2017

2/22/17

Refactor DictionaryTrie.cpp

1. Got rid of magic numbers in the code

- It improves readability of the code and it's easier to maintain

- These will never change, but they make the meaning clearer, and provide some protection against typos

- Here is one example of the magic number refactoring which makes the code more legible and easier to understand

Original Code

Refactored Code

2. **Made variable names easier to understand**

- More descriptive variable names make it easier to read

- The less generic they are the less confusing it will be

Original Code

```cpp
MWTNode * current = root;
int next;

// Traverse down valid paths within the trie
for (unsigned int level = 0; level < word.length(); level++) {
  if (!current) { return false; }

  // Move down a level
  next = word[level] - 'a';
```

Refactored Code

```cpp
// Current position in the trie
MWTNode * currentNode = root;
int nextPosition;

// Traverse down valid paths within the trie
for (unsigned int level = zero; level < word.length(); level++) {
  if (!currentNode) { return false; }

  // Move down a level
  nextPosition = word[level] - 'a';
```