# CSCI110 – Fundamentals of Computer Science
## MT SAC College
## CSCI110

Lab #: _____2B_____

Description: _____Problem 4.14 pg. 180_____

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Due Date: _____TBD_____

Name: _____Brandon Wu_____

Grade: _____Freshman_____

Notes: _____Used mac terminal_____

```cpp
/*
Prolog
    a.    Program Description: Grade Letter Conversion
    b.    Author: Brandon Wu
    c.    Date: 06-28-22
    d.    Input variables: words
    e.    Process Flow: Operations, string manipulation, conditional statements
    f.    Output variables: word[counter], syllable_count
*/

#include <iostream>
#include <cmath>
#include <iomanip>
#include <string>
#include <sstream>

using namespace std;

int main()
{
    cout << "Please input your string: ";
    string words;
    getline(cin, words);
    int string_length = words.length();
    cout << "Words";
    cout << setw(20) << "Syllables" << endl;
    cout << "_____" << endl;
    int counter;
    int syllable_count = 0;
    char last_vowel_position;
    int total_words = 0;
    int consecutive_vowel_count = 0;
    for (counter = 0; counter <= string_length; counter++)
    {
        if (words[counter] == 'a' || words[counter] == 'e' || words[counter] == 'i' ||
words[counter] == 'o' || words[counter] == 'u' || words[counter] == 'y')
        {
            consecutive_vowel_count += 1;
            total_words += 1;
            last_vowel_position = words[counter];
```

```cpp
            if (consecutive_vowel_count == 1)
            {
                syllable_count += 1;
            }
            cout << words[counter];
        }
        else if (words[counter] == ' ' || words[-1] == words[counter])
        {
            if (last_vowel_position == 'e')
            {
                syllable_count -= 1;
            }
            if (syllable_count  == 0)
            {
                syllable_count += 1;
            }
            cout << setw(20 - total_words) << syllable_count << endl;
            syllable_count = 0;
            total_words = 0;
        }
        else
        {
            consecutive_vowel_count = 0;
            total_words += 1;
            cout << words[counter];
        }
    }
    return 0;
}
```

```
Brandons-Air-2:Project1 brandonwu$ cd "/Users/brandonwu/Project1/Lab2/" && g++ Lab2B.cpp -o Lab2B && "/Users/brandonwu/Project1/Lab2/"Lab2B
Please input your string: Harry hair hare the
Words        Syllables
_____
Harry            2
hair             1
hare             1
the              1
Brandons-Air-2:Lab2 brandonwu$ cd "/Users/brandonwu/Project1/Lab2/" && g++ Lab2B.cpp -o Lab2B && "/Users/brandonwu/Project1/Lab2/"Lab2B
Please input your string: works with more than four words
Words        Syllables
_____
works            1
with             1
more             1
than             1
four             1
words            1
Brandons-Air-2:Lab2 brandonwu$ cd "/Users/brandonwu/Project1/Lab2/" && g++ Lab2B.cpp -o Lab2B && "/Users/brandonwu/Project1/Lab2/"Lab2B
Please input your string: this lab was extremely hard
Words        Syllables
_____
this             1
lab              1
was              1
extremely        4
hard             1
Brandons-Air-2:Lab2 brandonwu$ cd "/Users/brandonwu/Project1/Lab2/" && g++ Lab2B.cpp -o Lab2B && "/Users/brandonwu/Project1/Lab2/"Lab2B
Please input your string: must account for last e and consecutive vowels
Words        Syllables
_____
must             1
account          2
for              1
last             1
e                1
and              1
consecutive      4
vowels           1
Brandons-Air-2:Lab2 brandonwu$
```