**External Documentation for CPSC 1150 – W05 Lab 6**

**Program:** CountVowels.java

File Name: CountVowels.java

Purpose: Counting vowels

Input: user input string

Output: list of vowels used and number of times vowels used

**Algorithm**

Displaying all vowels used and how many times vowels are used

START

1. Make a method called vowelsCounter
2. Make a loop that goes through a string for each character in the string
3. Use a switch method to add 1 to the counter if there is any vowels used
4. Read the string input in the main method
5. Get the count value from vowelsCounter method
6. Display result

END

**Sample Input and Output**

Enter a sentence : how many vowels are in this sentence?

There are 11 number of vowels

**Program:** CalculateDates

File Name: CalculateDates.java

Purpose: Displaying a calculated date from beginning of the year

Input: year, month, and day

Output: date of the next day and how many days have passed since the first day of the year

**Algorithm**

Displaying calculated dates

START

1. Set up a method for inputValidator
2. Method returns 1 if input is valid and 0 if else
3. Set up method monthName
4. Method returns string value of a month using month input(integer)
5. Set up isLeapYear method
6. Method calculates if the year is a leap year and returns 1 if it is a leap year and 0 if not
7. Set up method daysInmonth
8. This method calculates total days in a month using switch statement
9. Set up calculateTotalDaysPassed
10. This method calculates total days passed since the beginning of the year
11. Set up printNextDay method
12. This method calculates what day it is from the day user inputs
13. Read variables and print result from main method

END

**Sample Input and Output**

Enter the month in integer (ex. January is 1): 3

Enter the year: 2019

Enter the days: 16

75 have passed since the beginning of the year.

The next day is March 17 , 2019