**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Session: \_\_\_\_\_\_**

**Advanced Programming in Java**

**Lab Exercise 11.19.2024**

**Words Challenge**

In the Words Challenge folder, you will find a file; words.txt which is used in MIT’s introductory programming course. It contains 55,900 words all on a single line separated by a single space character. Your task is to count the short words, medium length words and long words. Short is defined as fewer than 4 characters. Medium length words are words of length 4 to 7 characters inclusive. Long words are 8 or more characters. You are to write a program to do this. Your program should report the number in each category.

**Palindrome Project**

In the Palindrome Project folder, you will find a text file (words.txt) that contains many words (one word per line). Write a program to answer the following questions:

1. How many words are there? \_\_\_\_\_\_\_\_\_\_\_\_\_
2. How many palindromes are there? \_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. How many characters does the longest palindrome contain? \_\_\_\_\_\_\_\_\_\_\_\_\_
4. List the longest palindromes?
   1. \_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_
   4. \_\_\_\_\_\_\_\_\_\_\_\_
   5. \_\_\_\_\_\_\_\_\_\_\_\_
   6. \_\_\_\_\_\_\_\_\_\_\_\_
   7. \_\_\_\_\_\_\_\_\_\_\_\_
   8. \_\_\_\_\_\_\_\_\_\_\_\_
   9. \_\_\_\_\_\_\_\_\_\_\_\_
   10. \_\_\_\_\_\_\_\_\_\_\_\_

**Remove String Project**

Create a RemoveString application that prompts the user to enter a sentence and a string. The application should then remove every occurrence of the string from the sentence. The application should look similar to:

Enter a sentence: I hope you have a really nice day.

Enter a string: really

I hope you have a nice day.