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

**Advanced Programming in Java**

**Lab Exercise 12.2.2021**

**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. You 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. \_\_\_\_\_\_\_\_\_\_\_\_