

## Task 1: Java IO Basics

Write a program that reads a text file and counts the frequency of each word using FileReader and FileWriter.

```
package Day20;

import java.io.*;
import java.util.HashMap;
import java.util.Map;
import java.util.StringTokenizer;

public class WordFrequencyCounter {

    public static void main(String[] args) {
        String inputFile = "input.txt";
        String outputFile = "output.txt";

        try {
            Map<String, Integer> wordCount = new HashMap<>();

            BufferedReader reader = new BufferedReader(new FileReader(inputFile));
            String line;
            while ((line = reader.readLine()) != null) {
                StringTokenizer tokenizer = new StringTokenizer(line);
                while (tokenizer.hasMoreTokens()) {
                    String word = tokenizer.nextToken().toLowerCase();
                    wordCount.put(word, wordCount.getOrDefault(word, 0) + 1);
                }
            }
            reader.close();

            BufferedWriter writer = new BufferedWriter(new FileWriter(outputFile));
            for (Map.Entry<String, Integer> entry : wordCount.entrySet()) {
                writer.write(entry.getKey() + ": " + entry.getValue());
                writer.newLine();
            }
            writer.close();

            System.out.println("Word frequency count has been written to " + outputFile);
        } catch (IOException e) {
            e.printStackTrace();
        }
    }
}
```

```
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3
4 import java.io.*;
5 import java.util.HashMap;
6 import java.util.Map;
7 import java.util.StringTokenizer;
8
9 public class WordFrequencyCounter {
10
11 public static void main(String[] args) {
12     String inputFile = "input.txt";
13     String outputFile = "output.txt";
14
15     try {
16         Map<String, Integer> wordCount = new HashMap<>();
17
18         BufferedReader reader = new BufferedReader(new FileReader(inputFile));
19         String line;
20         while ((line = reader.readLine()) != null) {
21             StringTokenizer tokenizer = new StringTokenizer(line);
22             while (tokenizer.hasMoreTokens()) {
23                 String word = tokenizer.nextToken().toLowerCase();
24                 wordCount.put(word, wordCount.getOrDefault(word, 0) + 1);
25             }
26         }
27         reader.close();
28
29         BufferedWriter writer = new BufferedWriter(new FileWriter(outputFile));
30         for (Map.Entry<String, Integer> entry : wordCount.entrySet()) {
31             writer.write(entry.getKey() + ": " + entry.getValue());
32         }
33     } catch (IOException e) {
34         e.printStackTrace();
35     }
36 }
```

Outline

- Day20
  - WordFrequencyCounter
    - main(String[]): void

Markers Properties Terminal Console Coverage

<terminated> WordFrequencyCounter [Java Application] C:\Users\Nikita\p2\pool\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86\_64\_16.0.2.v20210721-1149\jre\bin\javaw.exe (Jun 5, 2024, 11:15)

Word frequency count has been written to output.txt