

Task 1: Java IO Basics

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

ANS:

```
package com.Day25;
import java.io.BufferedReader;
import java.io.BufferedWriter;
import java.io.FileReader;
import java.io.FileWriter;
import java.io.IOException;
import java.util.HashMap;
import java.util.Map;
public class Task1 {
    public static void main(String[] args) {
        String inputFile = "input.txt"; // Input file path
        String outputFile = "output.txt"; // Output file path
        // Read the file and count word frequencies
        Map<String, Integer> wordCountMap = new HashMap<>();
        try (BufferedReader reader = new BufferedReader(new FileReader(inputFile))) {
            String line;
            while ((line = reader.readLine()) != null) {
                String[] words = line.split("\\W+"); // Split the line into words using non-word characters as
                // delimiters
                for (String word : words) {
                    if (word.isEmpty()) {
                        continue; // Skip empty strings resulting from consecutive delimiters
                    }
                    word = word.toLowerCase(); // Convert to lower case to make counting case-insensitive
                    wordCountMap.put(word, wordCountMap.getOrDefault(word, 0) + 1);
                }
            }
        } catch (IOException e) {
            e.printStackTrace();
        }
        // Write the word frequencies to the output file
        try (BufferedWriter writer = new BufferedWriter(new FileWriter(outputFile))) {
            for (Map.Entry<String, Integer> entry : wordCountMap.entrySet()) {
                writer.write(entry.getKey() + ": " + entry.getValue());
                writer.newLine();
            }
        } catch (IOException e) {
            e.printStackTrace();
        }
    }
}
```