Object Oriented Programming (Java)

Word Counter Program

This Java program prompts the user to enter four names, generate a list of 100 lines with randomly selected names from the input, and writes the list to a file called input. It then counts the occurrences of each name in the input file, storing the results in a map, and writes the name occurrences along with their counts to a file called output.   
  
  
  
Code:

import java.io.\*;

import java.util.\*;

public class CountWordProg {

public static void main(String[] args) {

Scanner scanner = new Scanner(System.in);

String[] names = new String[4];

for (int i = 0; i < names.length; i++) {

System.out.print("Enter name " + (i + 1) + ": ");

names[i] = scanner.nextLine();

}

scanner.close();

Random random = new Random();

StringBuilder content = new StringBuilder();

for (int i = 0; i < 100; i++) {

String randomName = names[random.nextInt(names.length)];

content.append(randomName).append(System.lineSeparator());

}

try (BufferedWriter writer = new BufferedWriter(new FileWriter("input.txt"))) {

writer.write(content.toString());

System.out.println("Input file created successfully.");

} catch (IOException e) {

System.out.println("Error creating input file: " + e.getMessage());

}

Map<String, Integer> nameCount = new HashMap<>();

try (Scanner fileScanner = new Scanner(new File("input.txt"))) {

while (fileScanner.hasNextLine()) {

String name = fileScanner.nextLine();

nameCount.put(name, nameCount.getOrDefault(name, 0) + 1);

}

} catch (FileNotFoundException e) {

System.out.println("Error reading input file: " + e.getMessage());

}

try (PrintWriter writer = new PrintWriter("output.txt")) {

for (Map.Entry<String, Integer> entry : nameCount.entrySet()) {

writer.println(entry.getKey() + " " + entry.getValue());

}

System.out.println("Name count is done and saved in output.txt file.");

} catch (FileNotFoundException e) {

System.out.println("Error creating output file: " + e.getMessage());

}

}

}