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package com.company;

import java.io.*;
import java.util.*;

public class conflation {

    public static void main(String[] args) {
        try {
            Scanner sc = new Scanner(System.in);
            List<String> text = new ArrayList<>();
            readTextFile("Input.txt", text);
            int choice;

            do {
                System.out.println("1. Display the file");
                System.out.println("2. Remove Punctuation and Stop Words");
                System.out.println("3. Suffix Stripping");
                System.out.println("4. Count Frequency");
                System.out.println("5. Exit");
                System.out.print("Enter your choice: ");
                choice = sc.nextInt();
                sc.nextLine(); // Consume the newline character

                switch (choice) {
                    case 1:
                        displayText(text);
                        break;
                    case 2:
                        removePunctuationAndStopWords(text);
                        break;
                    case 3:
                        suffixStripping(text);
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        break;
    case 4:
        countFrequency(text);
        break;
    case 5:
        System.out.println("Exiting...");
        break;
    default:
        System.out.println("Invalid choice. Please enter a valid option.");
    }
} while (choice != 5);

} catch (FileNotFoundException e) {
    System.out.println("File not found: " + e);
}
}

private static void readTextFile(String filename, List<String> text) throws FileNotFoundException {
    try (Scanner scanner = new Scanner(new File(filename))) {
        while (scanner.hasNext()) {
            text.add(scanner.next());
        }
    }
}

private static void displayText(List<String> text) {
    for (String word : text) {
        System.out.print(word + " ");
    }
    System.out.println();
}

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private static void removePunctuationAndStopWords(List<String> text) {
    List<String> stopWords = Arrays.asList("the", "is", "and", "of", "are", "for", "in");
    List<String> result = new ArrayList<>();

    for (String word : text) {
        String cleanedWord = word.replaceAll("[^a-zA-Z\\s]", "").toLowerCase();
        if (!stopWords.contains(cleanedWord)) {
            result.add(cleanedWord);
        }
    }

    displayText(result);
}

private static void suffixStripping(List<String> text) {
    for (int i = 0; i < text.size(); i++) {
        String word = text.get(i);
        if (word.endsWith("ing") || word.endsWith("ed") || word.endsWith("s")) {
            text.set(i, word.substring(0, word.length() - 3)); // Remove the last 3 characters
        }
    }
}

private static void countFrequency(List<String> text) {
    Map<String, Integer> wordCount = new HashMap<>();
    for (String word : text) {
        wordCount.put(word, wordCount.getOrDefault(word, 0) + 1);
    }
    wordCount.forEach((word, count) -> System.out.println(word + ": " + count));
}

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}  
  
}
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Output

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conflation x
"C:\Program Files\Java\jdk-16.0.2\bin\java.exe" "-javaagent:C:\Users\HP\Desktop\IntelliJ IDEA Community Edition 2021.2\lib\idea_rt.jar=54665:C:\Users\HP\Desktop\IntelliJ IDEA Community Edition 2021.2\bin" -Didea.config.path=C:\Users\HP\Desktop\IntelliJ IDEA Community Edition 2021.2\conf -Didea.copyright.path=C:\Users\HP\Desktop\IntelliJ IDEA Community Edition 2021.2\copyright -Didea.home.path=C:\Users\HP\Desktop\IntelliJ IDEA Community Edition 2021.2\bin -Didea.jre.path=C:\Users\HP\Desktop\IntelliJ IDEA Community Edition 2021.2\jre -Didea.platform.prefix=JDK -Didea.vendor.id=idea -Didea.version=2021.2 -jar C:\Users\HP\Desktop\IntelliJ IDEA Community Edition 2021.2\bin\idea_rt.jar=54665:C:\Users\HP\Desktop\IntelliJ IDEA Community Edition 2021.2\bin
1. Display the file
2. Remove Punctuation and Stop Words
3. Suffix Stripping
4. Count Frequency
5. Exit
Enter your choice: 1
Hello He ordered his regular breakfast. Two eggs sunnyside up, hash browns, and two strips of bacon. He continued to look at the menu wondering if this would be day he added.
1. Display the file
2. Remove Punctuation and Stop Words
3. Suffix Stripping
4. Count Frequency
5. Exit
Enter your choice: 2
hello he ordered his regular breakfast two eggs sunnyside up hash browns two strips bacon he continued to look at menu wondering if this would be day he added
1. Display the file
2. Remove Punctuation and Stop Words
3. Suffix Stripping
4. Count Frequency
5. Exit
Enter your choice:
1. Display the file
2. Remove Punctuation and Stop Words
3. Suffix Stripping
4. Count Frequency
5. Exit
Enter your choice: 4
all.: 1
added: 2
before: 1
had: 1
strips: 1
wondering: 1
that: 2
seconds: 1
his: 1
Hello: 1
would: 3
else: 1
This: 1
few: 1
He: 2
if: 2
day: 2
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