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**ROLL:** 407B001

**ASSIGNMENT NO. 1**

**CODE:**

// Source code is decompiled from a .class file using FernFlower decompiler.

import java.io.BufferedWriter;

import java.io.File;

import java.io.FileNotFoundException;

import java.io.FileWriter;

import java.io.IOException;

import java.io.PrintStream;

import java.util.Arrays;

import java.util.HashMap;

import java.util.Iterator;

import java.util.Map;

import java.util.Scanner;

public class Conflation {

public Conflation() {

}

public static void main(String[] var0) throws IOException {

Scanner var1 = new Scanner(System.in);

File var2 = new File("java.txt");

while(true) {

while(true) {

System.out.println("\n1. Display the file");

System.out.println("2. Remove 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: ");

int var3 = var1.nextInt();

switch (var3) {

case 1:

displayFile(var2);

break;

case 2:

removePunctuationAndStopWords(var2);

break;

case 3:

suffixStripping();

break;

case 4:

frequencyCount();

break;

case 5:

System.exit(0);

break;

default:

System.out.println("Invalid choice.");

} }

} }

private static void displayFile(File var0) throws FileNotFoundException {

Scanner var1 = new Scanner(var0);

while(var1.hasNext()) {

System.out.print(var1.next() + " ");

}

System.out.println();

var1.close();

}

private static void removePunctuationAndStopWords(File var0) throws IOException {

Scanner var1 = new Scanner(var0);

BufferedWriter var2 = new BufferedWriter(new FileWriter("without\_punctuation\_and\_stopwords.txt")); while(var1.hasNext()) {

String var3 = var1.next().replaceAll("[^a-zA-Z\\s]", "");

String var4 = var3.toLowerCase();

if (!Arrays.asList("the", "is", "and", "of", "are", "for", "in").contains(var4)) {

var2.write(var3 + " ");

} }

var2.close();

var1.close();

System.out.println("File after punctuation removal and stopword removal:");

displayFile(new File("without\_punctuation\_and\_stopwords.txt"));

}

private static void suffixStripping() throws IOException {

Scanner var0 = new Scanner(new File("without\_punctuation\_and\_stopwords.txt"));

BufferedWriter var1;

String var2;

for(var1 = new BufferedWriter(new FileWriter("suffix\_stripping.txt")); var0.hasNext(); var1.write(var2 + " ")) {

var2 = var0.next();

if (var2.endsWith("ing")) {

var2 = var2.substring(0, var2.length() - 3);

} else if (var2.endsWith("ly")) {

var2 = var2.substring(0, var2.length() - 2);

}

}

var1.close();

var0.close();

System.out.println("File after suffix stripping:");

displayFile(new File("suffix\_stripping.txt"));

}

private static void frequencyCount() throws IOException {

Scanner var0 = new Scanner(new File("suffix\_stripping.txt"));

HashMap var1 = new HashMap();

while(var0.hasNext()) {

String var2 = var0.next().toLowerCase();

var1.put(var2, (Integer)var1.getOrDefault(var2, 0) + 1);

}

var0.close();

System.out.println("Word Frequencies:");

Iterator var4 = var1.entrySet().iterator();

while(var4.hasNext()) {

Map.Entry var3 = (Map.Entry)var4.next();

PrintStream var10000 = System.out;

String var10001 = (String)var3.getKey();

var10000.println(var10001 + " = " + String.valueOf(var3.getValue()));

} }

}

**OUTPUT:**

base) venkatesh@Venkateshs-MacBook-Air Java % javac Conflation.java

(base) venkatesh@Venkateshs-MacBook-Air Java % java Conflation

1. Display the file

2. Remove Stop Words

3. Suffix Stripping

4. Count Frequency

5. Exit

Enter your choice: 1

The quick brown fox jumps over the lazy dog. The dog is not amused by the fox and tries to chase it away. However, the fox is too quick and escapes easily.

1. Display the file

2. Remove Stop Words

3. Suffix Stripping

4. Count Frequency

5. Exit

Enter your choice: 2

File after punctuation removal and stopword removal:

quick brown fox jumps over lazy dog dog not amused by fox tries to chase it away However fox too quick escapes easily

1. Display the file

2. Remove Stop Words

3. Suffix Stripping

4. Count Frequency

5. Exit

Enter your choice: 3

File after suffix stripping:

quick brown fox jumps over lazy dog dog not amused by fox tries to chase it away However fox too quick escapes easi

1. Display the file

2. Remove Stop Words

3. Suffix Stripping

4. Count Frequency

5. Exit

Enter your choice: 4

Word Frequencies:

over = 1

however = 1

tries = 1

escapes = 1

quick = 2

away = 1

lazy = 1

jumps = 1

it = 1

brown = 1

chase = 1

fox = 3

not = 1

amused = 1

too = 1

by = 1

to = 1

dog = 2

easi = 1

1. Display the file

2. Remove Stop Words

3. Suffix Stripping

4. Count Frequency

5. Exit

Enter your choice: 5

(base) venkatesh@Venkateshs-MacBook-Air Java %