public class SatheKetakiA3 {

public static void main(String args[]) {

String str1 = "My brother has his sword; King Robert has his Warhammer and I have my mind and a mind needs books as a sword needs a whetstone if it is to keep its edge. That's why I read so much Jon Snow. Every sword has its name.";

String[] wordArray = getWordArray(str1);

System.out.println("Occurrences of \"sword\": " + getOccurrenceCount(wordArray, "sword") +"\n");

System.out.println("Capital paragraph: " + capitalizeAllWords(str1)+"\n");

System.out.println("Total number of words in the quotes are: " + wordArray.length+"\n");

System.out.println("Reverse of last line: " + reverseLastLine(str1)+"\n");

}

// Get array of words from a sentence

private static String[] getWordArray(String sampleText) {

return sampleText.split(" ");

}

// Calculate occurrences of given word

private static int getOccurrenceCount(String[] wordArray, String word) {

int wordCount = 0;

for (String currentWord : wordArray) {

if (currentWord.contains(word)) {

wordCount++;

}

}

return wordCount;

}

private static String capitalizeAllWords(String sampleText) {

char[] sampleTextArray = sampleText.toCharArray();

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

//New word is always followed by a Space. Hence find the occurrence of space and capitalize char next to it.

if (' ' == sampleTextArray[i]) {

sampleTextArray[i + 1] = Character.toUpperCase(sampleTextArray[i + 1]);

}

}

return String.valueOf(sampleTextArray);

}

private static String reverseLastLine(String sampleText) {

//Splitting on '. '

String[] sentencesArray = sampleText.split("\\. ");

String lastSentence = sentencesArray[sentencesArray.length - 1];

lastSentence = lastSentence.substring(0, lastSentence.length() - 1);

String[] wordArray = getWordArray(lastSentence);

String result = "";

//Start from end

for (int i = wordArray.length - 1; i >= 0; i--) {

result = result.concat(wordArray[i]);

//add full stop when end is reached

if (i == 0) {

result = result.concat(".");

}

//if not end then keep adding space

else {

result = result.concat(" ");

}

}

return result;

}

}