import java.io.\*;

import java.util.\*;

public class assign7 {

public static void main(String[] args) {

Hashtable<String, Integer> dictionary = new Hashtable<>();

Scanner scanner = new Scanner(System.in);

// Load dictionary from file

loadDictionary(dictionary);

while (true) {

System.out.println("1. Enter Word");

System.out.println("2. Search Word");

System.out.println("3. Remove Word");

System.out.println("4. Exit");

System.out.print("Enter your choice: ");

int choice = scanner.nextInt();

scanner.nextLine(); // Consume newline

switch (choice) {

case 1:

System.out.print("Enter the word to add to dictionary: ");

String wordToAdd = scanner.nextLine();

addWordToDictionary(dictionary, wordToAdd);

saveDictionaryToFile(dictionary);

break;

case 2:

System.out.print("Enter the word to search in dictionary: ");

String wordToSearch = scanner.nextLine();

searchWordInDictionary(dictionary, wordToSearch);

break;

case 3:

System.out.print("Enter the word to remove from dictionary: ");

String wordToRemove = scanner.nextLine();

removeWordFromDictionary(dictionary, wordToRemove);

saveDictionaryToFile(dictionary);

break;

case 4:

System.out.println("Exiting program...");

System.exit(0);

break;

default:

System.out.println("Invalid choice. Please enter a valid option.");

}

}

}

private static void loadDictionary(Hashtable<String, Integer> dictionary) {

try (BufferedReader reader = new BufferedReader(new FileReader("dictionary.txt"))) {

String line;

while ((line = reader.readLine()) != null) {

dictionary.put(line.trim().toLowerCase(), 1);

}

} catch (IOException e) {

System.out.println("Error loading dictionary: " + e.getMessage());

}

}

private static void addWordToDictionary(Hashtable<String, Integer> dictionary, String word) {

dictionary.put(word.trim().toLowerCase(), 1);

System.out.println("Word added to dictionary.");

}

private static void searchWordInDictionary(Hashtable<String, Integer> dictionary, String word) {

if (dictionary.containsKey(word.trim().toLowerCase())) {

System.out.println("Word found in dictionary.");

} else {

System.out.println("Word not found in dictionary.");

}

}

private static void removeWordFromDictionary(Hashtable<String, Integer> dictionary, String word) {

if (dictionary.containsKey(word.trim().toLowerCase())) {

dictionary.remove(word.trim().toLowerCase());

System.out.println("Word removed from dictionary.");

} else {

System.out.println("Word not found in dictionary.");

}

}

private static void saveDictionaryToFile(Hashtable<String, Integer> dictionary) {

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

for (String word : dictionary.keySet()) {

writer.write(word);

writer.newLine();

}

} catch (IOException e) {

System.out.println("Error saving dictionary to file: " + e.getMessage());

}

}

}