《Java语言程序设计》课程实验报告

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| 专业名称 | 计算机科学与技术 | 年级 | 2017 | 班级 | 计工本1704 |
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| 实验名称 | 异常与IO |
| 实  验  目  的  及  要  求 | 目的：  了解熟悉顺序Java程序设计的形式，编写完整Java程序。  要求：   * 掌握File类。 * 掌握创建删除文件。 * 掌握文件读写。 * 会用Java编写完整的程序。 |
| 实  验  环  境 | Microsoft Windows 7 with SP1专业版（简体中文）32位  JDK 1.8  Eclipse 2017  或者Jcreator |
| 实  验  内  容 | 请按照要求编写出完整程序   * 第12章编程练习题: 12.23、12.26、12.30、12.32-33 |
| 实  验  步  骤  或  实  验  方  案 | **import** java.util.Scanner;  **import** java.util.ArrayList;  **import** java.io.File;  **import** java.net.URL;  **public** **class** URLData {  **public** **static** **void** main(String [] args) **throws** Exception  {  ArrayList<Integer> intList = **new** ArrayList<>();  URL url = **new** URL("./ltr/test.txt");  Scanner input = **new** Scanner(url.openStream());  **while** (input.hasNext())  {  intList.add(**new** Integer(input.nextInt()));  }  **double** total = 0.0;  **double** average = 0.0;  **for** (Integer number : intList)  {  total += number;  System.***out***.println(number);  }  average = total / intList.size();  System.***out***.println("Total : " + total);  System.***out***.printf("%s%.2f\n", "Average : ", average);  }  }  12.26  **import** java.io.File;  **import** java.util.Scanner;  **public** **class** MakeDirectory {  **public** **static** **void** main(String [] args) **throws** Exception  {  Scanner input = **new** Scanner(System.***in***);  System.***out***.print("Enter a directory: ");  String directory = input.next();  File file = **new** File(directory);  **if** (file.mkdirs())  {  System.***out***.println("Directory created successfully");  }  **else**  System.***out***.println("Directory already exist");  }  }  12.30  **import** java.util.Scanner;  **import** java.io.File;  **public** **class** CountLetterApper {  **public** **static** **void** main(String [] args) **throws** Exception  {  **int**[] countLetter = **new** **int**[26];  Scanner input = **new** Scanner(System.***in***);  System.***out***.print("Enter a file name : ");  String myFileName = input.next();  File myFile = **new** File(myFileName);  **if** (!myFile.canRead())  {  System.***out***.println("This file is unreadable");  System.*exit*(1);  }  **else**  {  Scanner readFile = **new** Scanner(myFile);  **while** (readFile.hasNextLine())  {  String everyLine = readFile.nextLine().toUpperCase();  //System.out.println(everyLine);  **for** (**int** i = 0; i < everyLine.length(); i++)  {  **if** (Character.*isLetter*(everyLine.charAt(i)))  {  countLetter[everyLine.charAt(i) - 'A']++;  }  }  }  }  **for** (**int** i = 0; i < 26; i++)  {  System.***out***.println("Number of " + (**char**)(i + 'A') + "'s: " + countLetter[i]);  }  }  }  12.33  **import** java.net.URL;  **import** java.util.Scanner;  **import** java.util.ArrayList;  **public** **class** SearchWebWord {  **public** **static** **void** main(String [] args)  {  Scanner input = **new** Scanner(System.***in***);  System.***out***.print("Enter a urlString : ");  String urlString = input.nextLine();  System.***out***.print("Enter a word: ");  String word = input.next();  input.nextLine();  *findWord*(word, urlString);  }  **public** **static** **void** findWord(String word, String startString)  {  ArrayList<String> listOfPendingURLs = **new** ArrayList<>();  ArrayList<String> listOfTraversedURLs = **new** ArrayList<>();  listOfPendingURLs.add(startString);  **boolean** succ = **true**;  **while** (succ)  {  String urlString = listOfPendingURLs.remove(0);  **if** (!listOfTraversedURLs.contains(urlString))  {  listOfTraversedURLs.add(urlString);  **if** (*getWord*(word, urlString))  {  System.***out***.println(urlString);  System.*exit*(1);  }  **for** (String everyURL : *getSubURLs*(urlString))  {  **if** (!listOfTraversedURLs.contains(everyURL))  {  listOfPendingURLs.add(everyURL);  }  }  }  **if** (listOfPendingURLs.size() == 0)  {  System.***out***.println("Not fild " + word);  succ = **false**;  }  }  }  **public** **static** **boolean** getWord(String word, String urlString)  {  **try**  {  Scanner input = **new** Scanner(**new** URL(urlString).openStream());  **while** (input.hasNextLine())  {  String everyLine = input.nextLine();  **if** (everyLine.contains(word))  {  **return** **true**;  }  }  }  **catch** (Exception ex)  {  System.***out***.println(ex.getMessage());  }  **return** **false**;  }  **public** **static** ArrayList<String> getSubURLs(String urlString)  {  ArrayList<String> list = **new** ArrayList<>();  **try**  {  URL url = **new** URL(urlString);  Scanner input = **new** Scanner(url.openStream());  **int** current = 0;  **while** (input.hasNext())  {  String line = input.nextLine();  current = line.indexOf("http:");  **while** (current > 0)  {  **int** endIndex = line.indexOf("\"", current);  **if** (endIndex > 0)  {  list.add(line.substring(current, endIndex));  current = line.indexOf("http:", endIndex);  }  **else**  current = -1;  }  }  }  **catch** (Exception ex)  {  System.***out***.println(ex.getMessage());  }  **return** list;  }  } |
| 调  试  过  程  及  实  验  结  果 |  |
| 总  结 |  |
| 附  录 |  |