CSE18R272-LAB MANUAL

KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION

COMPUTER SCIENCE AND EDUCATION

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Course Name : Java Programming

Course Code : CSE18R272

Section : A5

EXERCISE 7:

1. Write a Java program that reads a file and displays the file on the screen, with a

line number before each line.

**SOURCE CODE:**

Import java.io.\*;

Public class Main{

Public static void main(String[] args) throws IOException{

FileWriter fw = new FileWriter(“Test.txt”);

// BufferedReader br = new BufferedReader(new InputStream)

String str;

For (int i=0;i<args.length;i++)

Fw.write(args[i]+”\n”);

Int lno = 1;

Fw.close();

FileReader fr = new FileReader(“Test.txt”);

Int ch;

System.out.println(lno + “ : “);

While((ch=fr.read()) !=-1)

{

If(ch == ‘\n’)

{

System.out.println((char)ch);

System.out.println(++lno+”:”);

}

Else

System.out.println((char)ch);

}

}

}

2. Write a Java program that displays the number of characters, lines and words in a

text file.

SOURCE CODE:

import java.io.\*;

public class MyClass {

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

FileWriter fw = new FileWriter("Test.txt");

String str;

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

fw.write(args[i]+"\n");

fw.close();

int cc=0, lc=0, wc=1, allc=0;

FileReader fr = new FileReader("Test.txt");

int ch;

while((ch=fr.read()) !=-1)

{

if (Character .isLetter ((char)ch))

cc++;

else

if ( (char)ch == '\n' )

lc++;

else

if ((char)ch == ' ')

wc++;

allc++;

}

fr.close();

System.out.println("Character Count " + cc + " lines : " + lc + "words = " +wc+ " Total Count "+allc);

}

}

3. Convert the content of a given file into the uppercase content of the same file.

SOURCE CODE:

import java.io.\*;

public class MyClass {

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

FileWriter fw = new FileWriter("Text.txt");

String str;

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

fw.write(args[i]. toUpperCase ()+"\n");

int lno=1;

fw.close();

FileReader fr = new FileReader("Text.txt");

int ch;

System.out.println(lno + " : ");

while((ch=fr.read()) !=-1)

{

if((char)ch == '\n')

{

System.out.print((char)ch);

System.out.print(++lno+ " : " );

}

else

System.out.print((char)ch);

}

}

}

**4. Write a program that creates a file containing TotalCount random integers (in**

**character format) in the range 0 to HighValue-1. Write PerLine integers per line.**

**Separate each integer with one space. End each line with the correct line**

**termination for your computer. The user is prompted for and enters HighValue,**

**which should be an integer larger than zero. Then the user is prompted for and**

**enters PerLine, which is an integer greater than zero, and TotalCount, which also is**

**an integer greater than zero. Finally the user is prompted for and enters the file**

**name.Use a BufferedWriter with a FileWriter for output. Construct a Random object**

**and use its method nextInt(int Top), which returns an int in the range 0..Top-1.**

**SOURCE CODE:**

import java.io.\*;

import java.util.Scanner;

import java.util.Random;

public class MyClass {

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

int highValue,perLine,totalCount;

String filename="RandomNumber.txt";

FileWriter fw =new FileWriter(filename);

BufferedReader bin =new BufferedReader(new InputStreamReader(System.in));

String n1=bin.readLine();

String n2=bin.readLine();

String n3=bin.readLine();

highValue=Integer.parseInt(n1);

perLine=Integer.parseInt(n2);

totalCount=Integer.parseInt(n3);

Random r=new Random();

int num,wc=0;

String ss;

for(int i=1;i<=totalCount;i++)

{

num =r.nextInt(highValue);

ss=Integer.toString(num);

fw.write(ss);

fw.write(" ");

wc++;

if(wc==perLine)

{

fw.write("\n");

wc=0;

}

}

fw.close();

FileReader fr=new FileReader(filename);

BufferedReader br =new BufferedReader(fr);

String str;

while((str=br.readLine())!=null)

System.out.println(str);

fr.close();

}

}

**5. Write a program that creates a new file by concatenating several files together. The**

**command line looks like this: java fileCat source0 source1 source2 ... newFile.**

**There can be one or more source files on the command line. Each source file must**

**exist (if not, write an error message and exit). The last file name on the**

**line, newFile, is the name of the file to be created, and must not already**

**exist.Create the new file by opening the source files one at a time, in order, reading**

**each file byte-by-byte and writing each byte to newFile. Close each file when it is**

**no longer needed. Use buffered input and buffered output.**

**SOURCE CODE:**

**import java.io.\*;**

**public class MyClass {**

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

**String srcl = "Sourcel.txt";**

**String src2 = "Source2.txt";**

**String src3 = "Source3.txt";**

**FileWriter fw = new FileWriter(srcl);**

**String str = " This is in file one";**

**fw.write(str);**

**fw.close();**

**fw = new FileWriter(src2);**

**str = "This is in file two";**

**fw.write(str);**

**fw.close();**

**fw = new FileWriter(src3);**

**str = "This is in file three";**

**fw.write(str);**

**fw.close();**

**fw = new FileWriter(args[args.length-1]);**

**FileReader fr; int c;**

**for (int i=0; i< args.length-1; i++)**

**{**

**fr = new FileReader(args[i]) ;**

**while ( (c = fr.read()) != -1)**

**fw.write((char)c);**

**fw.write('\n');**

**fr.close();**

**}**

**fw.close();**

**fr = new FileReader(args[args.length-1]);**

**while((c=fr.read()) != -1 )**

**System.out.print((char)c);**

**fr.close();**

**}**

**}**

**6. Write a program that compares two text files line by line. The command line looks**

**like this: java fileComp file1 file2 [limit]. Read in a line from each file. Compare the**

**two lines. If they are identical, continue with the next two lines. Otherwise, write out**

**the line number and the two lines, and continue.**

**SOURCE CODE:**

**import java.io.\*;**

**public class MyClass {**

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

**FileWriter fw=new FileWriter("file1.txt");**

**fw.write("this is first file");**

**fw.write("\n");**

**fw.write("this file is about java");**

**fw.write("\n");**

**fw.write("this file is I/O");**

**fw.write("\n");**

**fw.close();**

**fw =new FileWriter("file2.txt");**

**fw.write("this is first file");**

**fw.write("\n");**

**fw.write("this file is about java");**

**fw.write("\n");**

**fw.write("this file is I/O");**

**fw.write("\n");**

**fw.close();**

**FileReader fr1;**

**FileReader fr2;**

**fr1=new FileReader(args[0]);**

**fr2=new FileReader(args[1]);**

**BufferedReader br1=new BufferedReader(fr1);**

**BufferedReader br2=new BufferedReader(fr2);**

**String str1,str2;**

**int linef1=0,linef2=0;**

**while(((str1=br1.readLine())!=null ) && ((str2=br2.readLine())!=null))**

**{**

**linef1++; linef2++;**

**if(str1.compareTo(str2)!=0){**

**System.out.println(linef1+" : "+str1);**

**System.out.println(linef2+" : "+str2);**

**}**

**}**

**fr1.close();**

**fr2.close();**

**}**

**}**