

CSE18R272-LAB MANUAL

KALASALINGAM ACADEMY OF RESEARCH AND EDUCATION

COMPUTER SCIENCE AND EDUCATION

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Section: A5

Course name: java programming

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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 src1 = "Source1.txt";

        String src2 = "Source2.txt";

        String src3 = "Source3.txt";

        FileWriter fw = new FileWriter(src1);

        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();

}
}
```