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## CSA2022 – Advanced JAVA Programming LAB SHEET - 7

**Module 2 – Input Output Operations in Java**

**LAB SHEET - 7**

**Q2**. Write a Java program to perform the following operations with text files.

1. Display the number of characters, sentences and words present in a text file multithread.txt.
2. Display the content of the file on the screen with line number before each line.

**Solution :**

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

**public** **class** Test {

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

File file = **new** File("linus\\multithread.txt");

FileReader fr = **new** FileReader(file);

BufferedReader br = **new** BufferedReader(fr);

String line;

**int** wordCount = 0;

**int** characterCount = 0;

**int** sentenceCount = 0;

**int** linecount = 0;

**while** ((line = br.readLine()) != **null**) {

characterCount += line.length();

String words[] = line.split("\\s+");

wordCount += words.length;

String sentence[] = line.split("[!?.:]+");

sentenceCount += sentence.length;

System.***out***.println(++linecount +" "+line);

}

System.***out***.println("Total word count = "+ wordCount);

System.***out***.println("Total number of sentences = "+ sentenceCount);

System.***out***.println("Total number of characters = "+ characterCount);

}

}

**Operations with Binary files**

**Q3**: Write a Java program to perform the following operations with binary files.

1. Create a folder , section name as folder name in c drive by passing the folder name at run time using Scanner.
2. Create a file to write about students those who submitted above essay , file name must be “sectionname\_students.dat”.
3. Add the content to the above file as follows:

The first line is the header line, the remaining lines corresponds to rows in the table, The elements are separated by spaces.

Name Regdno Essaysubmitted

Irfan 123 yes

Manoj 124 yes

Pavan 126 no

1. Read the above file to console

**Solution :**

a) Creating folder

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

**import** java.util.Scanner;

**public** **class** CreateFolder

{

**public** **static** **void** main(String arr[])

{

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("enter folder name");

String foldername=sc.next();

File f=**new** File(foldername);

**if**(f.exists()&&f.isDirectory())

System.***out***.println("already exist");

**else** **if**(f.mkdir()==**true**)

System.***out***.println("successfully created");

**else**

System.***out***.println("cannot be created");

}

}

b) Creating file

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

**import** java.util.Scanner;

**public** **class** Main {

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

Scanner sc = **new** Scanner(System.***in***);

System.***out***.println("Enter file name and folder name");

String filename=sc.next();

String foldername=sc.next();

FileOutputStream output = **new** FileOutputStream(foldername+"\\"+filename+".dat");

System.***out***.println("file created");

String header = "Name\tRegdno\tEssaysubmitted";

**byte**[] arrheader=header.getBytes();

output.write(arrheader);

System.***out***.println("file written");

output.close();

}}

c) Add content to file

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

**import** java.util.Scanner;

**public** **class** Main {

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

Scanner sc = **new** Scanner(System.***in***);

FileOutputStream output = **new** FileOutputStream("4cse\\4cse\_student.dat",**true**);

String record=**new** String();

String name;

**int** regdno;

**char** submitted,ch='n';

**do** {

System.***out***.println("Student Name , regdno in integer, submitted or not (y/n)");

name=sc.next();

regdno=sc.nextInt();

submitted=sc.next().charAt(0);

String newrecord=record.concat("\n").concat(name).concat("\t").concat(String.*valueOf*(regdno)).concat("\t\t").concat(String.*valueOf*(submitted));

**byte**[] arrheader=newrecord.getBytes();

output.write(arrheader);

System.***out***.println("enter y for more students and n to stop");

ch=sc.next().charAt(0);

}**while**(ch!='n');

System.***out***.println("file written");

output.close();

}}

d) Reading File to console

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

**public** **class** ReadBinaryFile {

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

File file = **new** File("linus\\4cse\_student.dat");

FileInputStream fis = **new** FileInputStream(file);

BufferedReader br = **new** BufferedReader(**new** InputStreamReader(fis));

String line;

**while** ((line = br.readLine()) != **null**) {

System.***out***.println(line);

}

}

}