### Description: WelTec Primary Logo CMYK.jpg**IT7374 Programming III**

### Lab 3 - Serialization and File IO

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#2141030

**LAB 3**

**Exercise 2**

**A1**

*import java.io.File;*

*import java.io.FileInputStream;*

*import java.io.FileOutputStream;*

*import java.io.IOException;*

*/\**

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*\*/*

*/\*\**

*\**

*\* @author Rodrigo*

*\*/*

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*\**

*\* Report on the file:*

*\* First the file location of the target is determined on the line ->41*

*\* This line makes sure that the file will be created in the case of it not existing, line ->43*

*\* The while makes sure that the reading goes on until the EOF, line ->48*

*\* Appends the character within the while completing the necessary string, line->50*

*\* Closing the stream, line->52*

*\* Printing the content of the buffer at this point, line->53*

*\* Attributes the string between quotes to the variable M, line->54*

*\* Creation of a file and saving the stream output in a variable, line->55*

*\* Converting of the variable M to Bytes, line->56*

*\* Writing in bytes to the file, line->57*

*\* Empty the input stream, line->58*

*\* Closing the file, line->59*

*\**

*\**

*\**

*\*/*

*public class A1 {*

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

*try {*

*File file = new File ("./A1.txt");*

*if (!file.exists()) {*

*file.createNewFile();*

*}*

*FileInputStream stream = new FileInputStream(file);*

*StringBuffer buffer = new StringBuffer();*

*int character = 0;*

*while ((character = stream.read()) != -1)*

*{*

*buffer.append((char) character);*

*}*

*stream.close();*

*System.out.println(buffer);*

*String m = "The Exercise A1 asked to modify the file... Here it goes. Rodrigo #2141030";*

*FileOutputStream varStream = new FileOutputStream(file);*

*byte[] mb = m.getBytes();*

*varStream.write(mb);*

*varStream.flush();*

*varStream.close();*

*}*

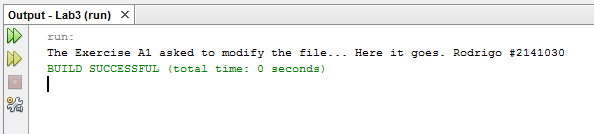
*catch (IOException ex){*

*System.out.println(ex);*

*}*

*}*

*}*



**Exercise 2**

**A2**

*import java.io.FileReader;*

*import java.io.FileWriter;*

*import java.io.IOException;*

*/\**

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*\*/*

*/\*\**

*\**

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*\*/*

*/\*\**

*\**

*\* Report on the file:*

*\* Creation of the file reader and the what file to be read, line->24*

*\* Define a file writer and the destination of the file to be written, line->25*

*\* While there is still something to read the while keeps it reading, line->30*

*\* Notifies using the console that it was successful, line->36*

*\* Close the input line->41*

*\* Close the output, line->42*

*\**

*\**

*\*/*

*public class A2 {*

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

*{*

*FileReader fr = new FileReader ("./Amostra.txt");*

*FileWriter fw = new FileWriter ("./A2FileWritten.txt");*

*try*

*{*

*int x;*

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

*{*

*fw.write(x);*

*}*

*System.out.println("Successfull in copying the file");*

*}*

*finally*

*{*

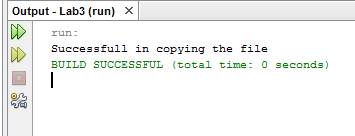
*fr.close();*

*fw.close();*

*}*

*}*

*}*



**Exercise 2**

**A3**

*import java.io.BufferedReader;*

*import java.io.FileReader;*

*import java.io.FileWriter;*

*import java.io.IOException;*

*import java.io.PrintWriter;*

*/\**

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*\*/*

*/\*\**

*\**

*\* @author Rodrigo*

*\*/*

*/\*\**

*\**

*\* Report on the file:*

*\* Creating the new buffer reader object with the address of the file to be read, line->35*

*\* Creating the print writer object with the instructions of the file to be written on, line->36*

*\* While determines the loop to be done while there is something to be read, line->40*

*\* Determines the success of the copying of the line into the console, line->44*

*\* Determines the closing and flushing of necessary objects, lines->48-50*

*\**

*\**

*\**

*\**

*\*/*

*public class A3*

*{*

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

*{*

*BufferedReader br = new BufferedReader (new FileReader("./Amostra.txt"));*

*PrintWriter pw = new PrintWriter (new FileWriter("./A3FileWritten.txt"));*

*try*

*{*

*String line;*

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

*{*

*pw.println(line);*

*}*

*System.out.println("The Line has been fully copied");*

*}*

*finally*

*{*

*br.close();*

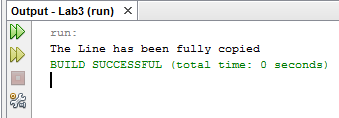
*pw.flush();*

*pw.close();*

*}*

*}*

*}*



**Exercise 2**

**A4**

*import java.io.BufferedReader;*

*import java.io.FileReader;*

*import java.io.IOException;*

*import java.util.Scanner;*

*/\**

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*\*/*

*/\*\**

*\**

*\* Report on the file:*

*\* Creation of the object from scanner to read the file, with the referred file address, line->29*

*\* While determines if there is still a next word and do the loop while there is, line->32*

*\* Report the word and a space into the console making sure its easy to determine success, line->34*

*\* Closing object, line->39*

*\**

*\**

*\**

*\*/*

*public class A4*

*{*

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

*{*

*Scanner scan = new Scanner (new BufferedReader(new FileReader("./Amostra.txt")));*

*try*

*{*

*while (scan.hasNext())*

*{*

*System.out.print(scan.next() + " ");*

*}*

*}*

*finally*

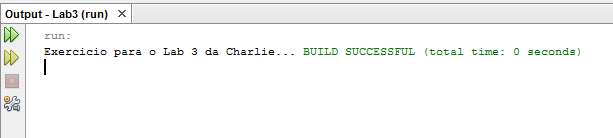
*{*

*scan.close();*

*}*

*}*

*}*



**Exercise 2**

**A5**

*import java.io.FileWriter;*

*import java.io.IOException;*

*/\**

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*\*/*

*/\*\**

*\**

*\* Report on the file:*

*\* Creation of the object for the file writer and its address, line->29*

*\* Creating the variable containing the string in the format requested and its configurations, line->30*

*\* Writing the file into the stream (output), line33*

*\* Writing into the console the message of success, line->34*

*\* Flush and close the stream object, lines->38-39*

*\**

*\**

*\**

*\*/*

*public class A5*

*{*

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

*{*

*FileWriter fw = new FileWriter ("./A5.txt");*

*String amostrinha = String.format("One word is %s. An integer would be %d. Showing the end %n. A double would be %.2f. A hexadecimal reference to the integer would be %x", "Programming", 40, 95.74, 40);*

*try*

*{*

*fw.write(amostrinha);*

*System.out.println(amostrinha + "\nhas been written to the file");*

*}*

*finally*

*{*

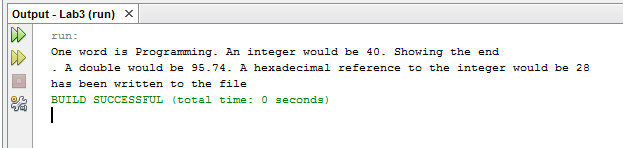
*fw.flush();*

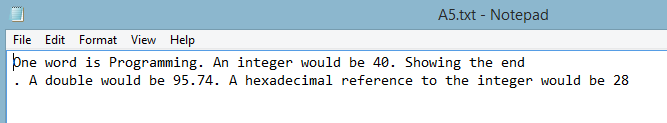
*fw.close();*

*}*

*}*

*}*





**Exercise 2**

**A6**

*import java.io.BufferedReader;*

*import java.io.FileWriter;*

*import java.io.InputStreamReader;*

*import java.io.PrintWriter;*

*import java.net.URL;*

*import java.net.URLConnection;*

*/\**

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*\*/*

*/\*\**

*\**

*\* Report on the file:*

*\* Creation of the object in print writer with the address for the file, line->33*

*\* Definition of the variable containing the url to be "looked"into, line->34*

*\* Definition of the url connection to be opened, line->35*

*\* Creation of the buffer object to read the content, line->36*

*\* Creation of the stream reader object, line->36*

*\* While will write into the defined file address the contents, lines->38-41*

*\* Message is displayed into the console for the notification of the success, line->42*

*\* Closing and flushing of the objects, lines->43-45*

*\**

*\*/*

*public class A6*

*{*

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

*{*

*PrintWriter pw = new PrintWriter (new FileWriter("./A6.txt"));*

*URL weltec = new URL ("http://www.weltec.ac.nz/");*

*URLConnection uc = weltec.openConnection();*

*BufferedReader br = new BufferedReader(new InputStreamReader(uc.getInputStream()));*

*String inputLine;*

*while ((inputLine = br.readLine()) != null)*

*{*

*pw.write(inputLine);*

*}*

*System.out.println("The HTML Output file was saved."); // print a message to the console screen*

*br.close();*

*pw.flush();*

*pw.close();*

*}*

*}*

