Jeffrey Lansford

Program 7

11/2/2020

We are task with removing the values of the corrupt data pattern with it starting with a Control-C character and ending with a Control-B character. We are to write this program in three different languages PERL, JAVA, PYTHON.

```
#!/usr/bin/perl
# Jeffrey Lansford
# 11/2/2020
# Program 7
# Perl version of removing content from file when seeing a Control-
C and stopping when seeing a Control-B

use strict;
use warnings;

# file name arguments for in and out
my ($fileInputName,$fileOutputName) = @ARGV;

# open  Input file
open(INPUT, "<".$fileInputName) or die "Couldnt open file, $!";

# open Output file
open(OUTPUT, ">".$fileOutputName) or die "Couldnt open file, $!";

# set to writing mode
my $deleteMode = 0;
while(1) {
    # read a character at a time
    my $char;
    read INPUT, $char, 1;

    # reached end of file
    if (!ord($char)) {
        last;
    }

    # start delete mode when seeing a Control-C character ascii value
    if (ord($char) == 3) {
        $deleteMode = 1;
    }
```

```
    # write to oupt when in write mode
    if (!$deleteMode) {
        print OUTPUT $char;
    }

    # switch to write mode when seeing a Control-B character ascii value
    if (ord($char) == 2) {
        $deleteMode = 0;
    }

}

# close files
close(INPUT) || die "Couldn't close file properly";
close(OUTPUT) || die "Couldn't close file properly";

print "Successfully wrote to ".$fileOutputName."\n";
```

```
/**
    Jeffrey Lansford
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    Program 7
    Java version of removing content from file when seeing a Control-
C and stopping when seeing a Control-B
 */
import java.io.*;

public class FileConversion {
    public static void main(String[] args) {
        // setup input and output objects
        FileInputStream fileInput;
        FileWriter fileOutput;
        try {

            // get input and output from command line arguments
            fileInput = new FileInputStream(args[0]);
            fileOutput = new FileWriter(args[1]);

            // acsii value of charcter being read
            int c;
```

```
            // set to write mode
            boolean deleteMode = false;
            // read in each charcter from file input stream
            while ((c = fileInput.read()) != -1) {

                //  set to delete mode when seeing a Control-
C character ascii value
                if (c == 3) {
                    deleteMode = true;
                }

                // write to output file if in write mode
                if (!deleteMode) {
                    fileOutput.write(c);
                }
                //  set to write mode when seeing a Control-
B character ascii value
                if (c == 2) {
                    deleteMode = false;
                }

            }
            // close files
            fileInput.close();
            fileOutput.close();
        }
        //  catch any errors
        catch (Exception e) {
            System.out.println("File not found: " + e);
            return;

        }

        System.out.println("Successfully wrote to " + args[1]);
    }
}
```

```
"""
Jeffrey Lansford
11/2/2020
Program 7
```

```
Python version of removing content from file when seeing a Control-
C and stopping when seeing a Control-B
"""

import sys

if __name__ == "__main__":

    # command line arguments for file input and output
    fileInputName = sys.argv[1]
    fileOutputName = sys.argv[2]

    # set to to write input to output file
    deletemode = False
    # open output file for writing
    fileOutput = open(fileOutputName, "w")
    # open corrupted file
    with open(fileInputName, "r", encoding="ascii") as fileInput:
        while True:
            # read in one character at a time
            c = fileInput.read(1)
            # reached End of File
            if not c:
                print("End of File")
                break
            # see Control-
C character acsii value and start not writing input to output file
            if ord(c) == 3:
                deletemode = True

            # write input to output if we are not in delete mode
            if not deletemode:
                fileOutput.write(c)
            # when seeing a Control-
B character ascii value, start writing to ouptut file
            if ord(c) == 2:
                deletemode = False

        # close files
        fileInput.close()
        fileOutput.close()
        print(f"Successfully wrote to {fileOutputName}")
```

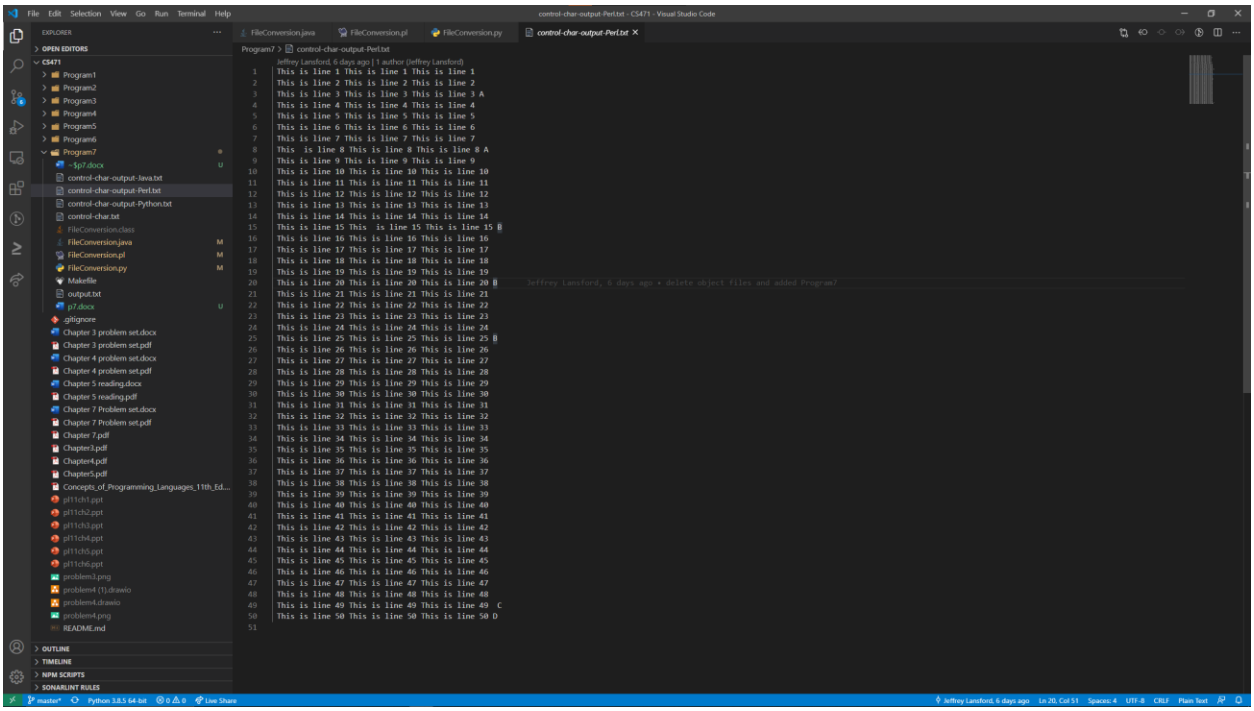
Program Printed Console Output:

```
jeffrey@MFS-3:/mnt/d/Documents/NMSU/CS471/Program7$ make
javac FileConversion.java
java FileConversion control-char.txt control-char-output-Java.txt
Successfully wrote to control-char-output-Java.txt


python3 FileConversion.py control-char.txt control-char-output-Python.txt
End of File
Successfully wrote to control-char-output-Python.txt


perl FileConversion.pl control-char.txt control-char-output-Perl.txt
Successfully wrote to control-char-output-Perl.txt
```

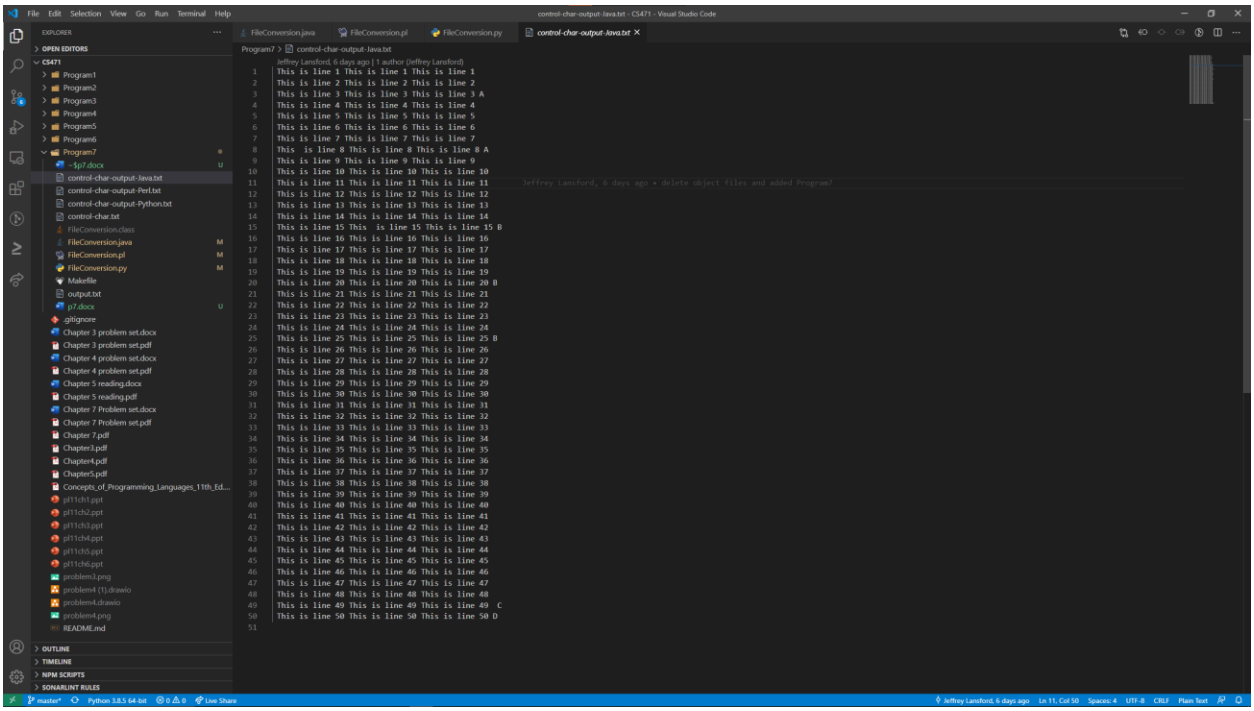
File Output:

They are all have the same output.

PERL:



JAVA:


control-char-output-Java.txt - CS471 - Visual Studio Code
FileConversion.java
FileConversion.pl
FileConversion.py
control-char-output-Java.txt
Program7 > control-char-output-Java.txt
Jeffrey Lansford, 6 days ago | 1 author (Jeffrey Lansford)
This is line 1 This is line 1 This is line 1
This is line 2 This is line 2 This is line 2
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This is line 5 This is line 5 This is line 5
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This is line 7 This is line 7 This is line 7
This is line 8 This is line 8 This is line 8 A
This is line 9 This is line 9 This is line 9
This is line 10 This is line 10 This is line 10
This is line 11 This is line 11 This is line 11
This is line 12 This is line 12 This is line 12
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This is line 48 This is line 48 This is line 48
This is line 49 This is line 49 This is line 49 C
This is line 50 This is line 50 This is line 50 D
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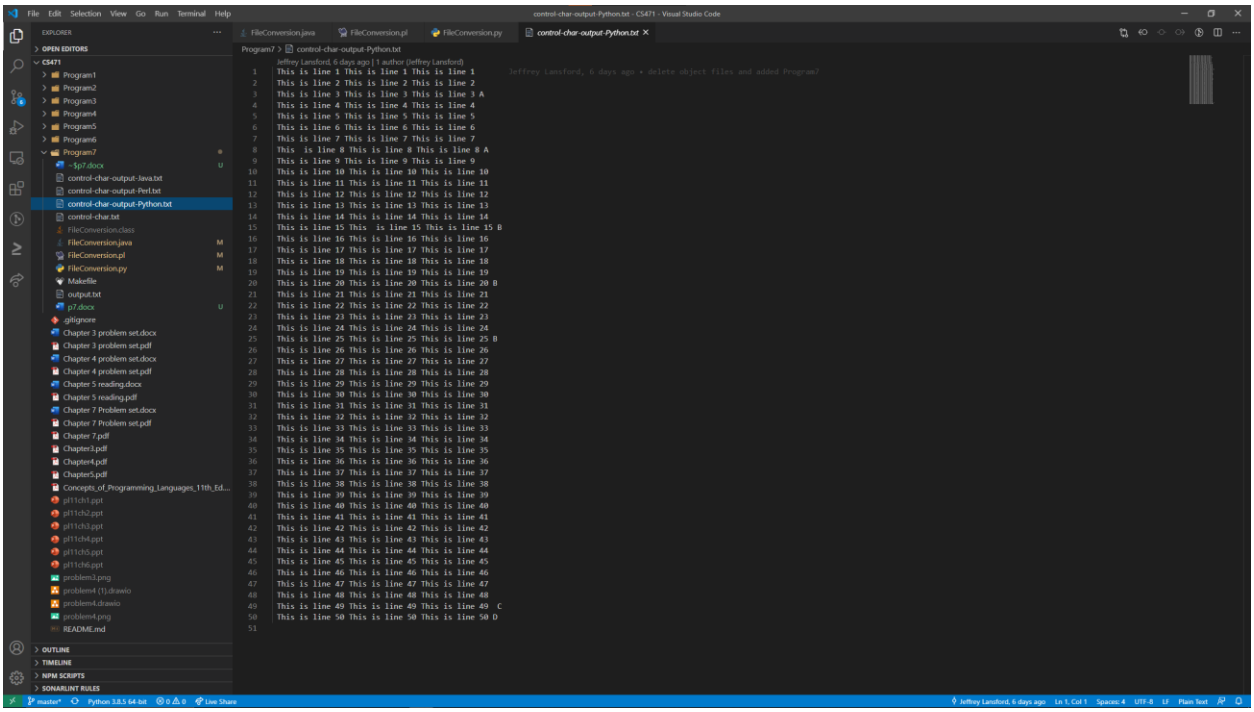
Python:


control-char-output-Python.txt - CS471 - Visual Studio Code
FileConversion.java
FileConversion.pl
FileConversion.py
control-char-output-Python.txt
Program7 > control-char-output-Python.txt
Jeffrey Lansford, 6 days ago | 1 author (Jeffrey Lansford)
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Jeffrey Lansford, 6 days ago • delete object files and added Program7