

TRINITY INTERNATIONAL COLLEGE

(Tribhuvan University Affiliated)



Lab Assignment 1.4: Advance Java Programming

Submitted By:

Submitted to:

Name: _____

Program: **B. Sc. (CSIT)**

Roll No:

Semester: seventh (7th)

Date:

KATHMANDU, NEPAL
2020

Unit- #1.4

- 1) Write the simple java program that reads data from one file and writes data to another file.
[2070, 2071, 2073, 2074]

⇒

Program

```
package Q1_FileReadWrite;

import java.io.FileInputStream;
import java.io.FileOutputStream;

public class FileReadWrite
{
    public static void main(String[] args) throws
                                Exception
    {
        FileInputStream in = null;
        FileOutputStream out = null;

        in = new FileInputStream
            ("source_FileReadWrite.txt");

        out = new FileOutputStream
            ("destination_FileReadWrite.txt");

        int byteData;
        while (true)
        {
            byteData = in.read();
            if (byteData == -1)
            {
                break;
            }
            out.write(byteData);
        }

        if (in!=null) in.close();
        if (out!=null) out.close();
    }
}
```

Output:



- 2) Write a program to duplicate each character in a text file and write the output in a separate file using character stream.

e.g.

source.txt

apple

destination.txt

aappppllee

⇒

Program

```
package Q2_CharacterStream;

import java.io.FileReader;
import java.io.FileWriter;

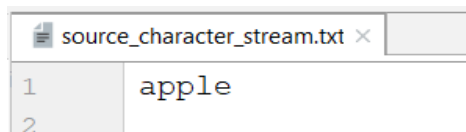
public class CharacterStreamDemo
{
    public static void main(String[] args) throws
                                   Exception
    {

        FileReader in = null;
        FileWriter out = null;

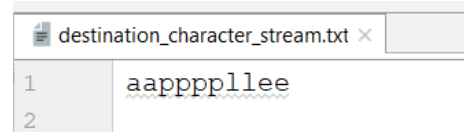
        in = new FileReader
            ("source_character_stream.txt");
        out = new FileWriter
            ("destination_character_stream.txt");
        int charData;
        while(true)
        {
            charData = in.read();
            if (charData == -1)
                break;
            else
            {
                out.write(charData);
                out.write(charData);
            }
        }
        if (in != null) in.close();
        if (out != null) out.close();
    }
}
```

Output:

Source_character_stream.txt

A screenshot of a text editor window titled 'source_character_stream.txt'. It shows two lines of text: '1 apple' and '2', where '2' is on a new line.

destination_character_stream.txt

A screenshot of a text editor window titled 'destination_character_stream.txt'. It shows two lines of text: '1 aappppllee' and '2', where '2' is on a new line. The text 'aappppllee' is underlined.

- 3) Write a program to read records from a text file which contains people's name, principle, rate and time values. Calculate simple interest and write all the contents of the source file along with simple interest to destination file.

e.g.:

source.txt

John 10000 10.5 2.5

Jane 5000 9.25 5.0

destination.txt

John 10000 10.5 2.5 2625.00

Jane 5000 9.25 5.0 2312.50

⇒

Program

```
package Q3_SimpleInterest;

import java.io.File;
import java.io.FileNotFoundException;
import java.io.PrintWriter;
import java.util.Scanner;

public class SimpleInterest
{
    public static void main(String[] args) throws
        FileNotFoundException
    {
        Scanner in = new Scanner(new File
            ("source_simple_interest.txt"));

        PrintWriter out = new PrintWriter(new File
            ("destination_simple_interest.txt"));

        while (in.hasNext())
        {
            String name = in.next();
            float principal = in.nextFloat();
            float rate = in.nextFloat();
            float time = in.nextFloat();
            float result = principal * rate * time ;
            float interest = result/100;

            out.printf("%s %.2f %.2f %.2f %.2f %n",name,
                principal, rate, time, interest);
        }
        in.close();
        out.close();
    }
}
```

Output:

source_simple_interest.txt ×				
1	John	1000	10.5	2.5
2	Jane	5000	9.25	5.0

destination_simple_interest.txt ×					
1	John	1000.00	10.50	2.50	262.50
2	Jane	5000.00	9.25	5.00	2312.50

- 4) Write a program to read the contents of a file one line at a time and output them to the screen.

⇒

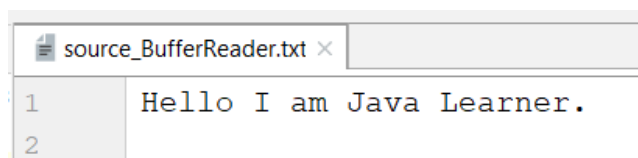
Program

```
package Q4_BufferReader;
import java.io.BufferedReader;
import java.io.FileReader;

public class BufferedReaderDemo
{
    public static void main(String[] args) throws
                                Exception
    {
        BufferedReader in = null;

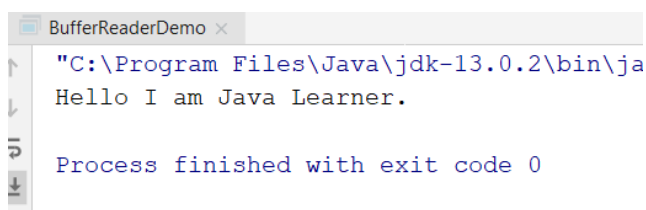
        try
        {
            in = new BufferedReader(new FileReader
                                    ("source_BufferReader.txt"));
            String Line;
            while(true)
            {
                Line = in.readLine();
                if(Line == null)
                    break;
                System.out.println(Line);
            }
        }
        finally
        {
            if(in!= null)in.close();
        }
    }
}
```

Output:



source_BufferReader.txt x

```
1 Hello I am Java Learner.
2
```



BufferedReaderDemo x

```
"C:\Program Files\Java\jdk-13.0.2\bin\ja
Hello I am Java Learner.
Process finished with exit code 0
```

- 5) Write a program to input whole lines from the keyboard and write them to a file. Exit the program when the user types "quit".

⇒

Program

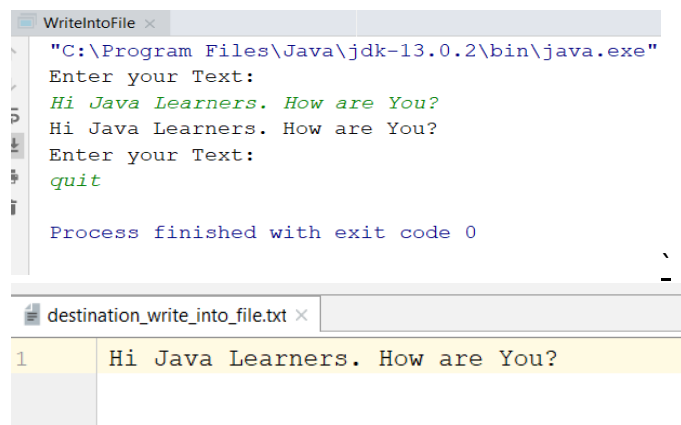
```
package Q5_WriteIntoFile;

import java.io.FileWriter;
import java.io.PrintWriter;
import java.util.Scanner;

public class WriteIntoFile
{
    public static void main(String[] args) throws
                                   Exception
    {
        PrintWriter out = null;
        try
        {
            out = new PrintWriter(new FileWriter
                                   destination_write_into_file.txt));
            Scanner in = new Scanner(System.in);

            while (true)
            {
                System.out.println("Enter your Text:");
                String text = in.nextLine();
                if (text.equals("quit"))
                    break;
                out.write(text);
                System.out.println(text);
            }
        }
        finally
        {
            if(out!= null) out.close();
        }
    }
}
```

Output:



```
WriteIntoFile x
"C:\Program Files\Java\jdk-13.0.2\bin\java.exe"
Enter your Text:
Hi Java Learners. How are You?
Hi Java Learners. How are You?
Enter your Text:
quit
Process finished with exit code 0

destination_write_into_file.txt x
1 Hi Java Learners. How are You?
```