TRINITY INTERNATIONAL COLLEGE

(Tribhuvan University Affiliated)

Lab Report:1.4 Advanced Java Programming

Submitted by: **Submitted to:**

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Roll No :10
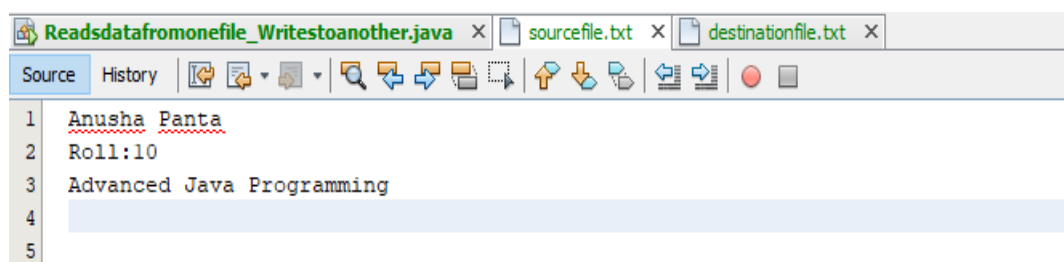Semester: 7th
Date   : 25/05/2020

KATHMANDU, NEPAL
2020

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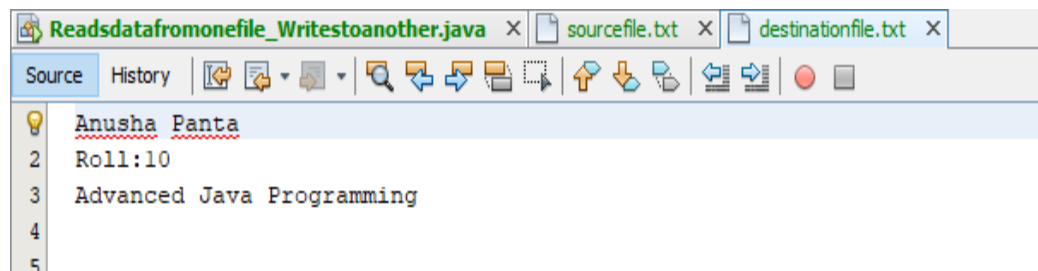
Program:

```java
package lab_assignment_1_4;

import java.io.BufferedReader;
import java.io.FileNotFoundException;
import java.io.FileReader;
import java.io.IOException;
import java.io.PrintWriter;

/**
 *
 * @author user
 */
public class Readsdatafromonefile_Writestoanother {
    public static void main(String[] args) throws FileNotFoundException, IOException {
        BufferedReader in =null;
        PrintWriter out=null;
        try{
            in =new BufferedReader(new FileReader("sourcefile.txt"));
            out=new PrintWriter(new PrintWriter("destinationfile.txt"));
            String line;
            while(true){
                line=in.readLine();
                if(line==null)
                    break;
                out.println(line);
            }
        }
        finally{
            if(in!=null)
                in.close();
            if(out!=null)
                out.close();
        }
    }
}
```

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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 lab_assignment_1_4;

import java.io.File;
import java.io.FileNotFoundException;
import java.io.FileReader;
import java.io.FileWriter;
import java.io.IOException;

public class DuplicateCharacter {
    public static void main(String[] args) throws FileNotFoundException, IOException{
        File inputFile =new File("srcfile.txt");
        File outputFile = new File("dstfile.txt");
        FileReader in = null;
        FileWriter out = null;
        int charData;
        try {
            in = new FileReader(inputFile);
            out = new FileWriter(outputFile);
            while(true){
                charData = in.read();
                if(charData==-1)
                    break;
                out.write(charData);
                out.write(charData);
            }
            System.out.println("Output is printed............");
```

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

}
```


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.
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 lab_assignment_1_4;

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

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```
/**
 *
 * @author student
 */
public class SimpleInterest {
 public static void main(String[] args)
      throws FileNotFoundException{
    Scanner in=new Scanner(new File("source.txt"));
    PrintWriter out =new PrintWriter(new File("destination.txt"));
    int recordCount=in.nextInt();
    System.out.println("no of records"+recordCount);
    for(int i=1;i<=recordCount;i++){
      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();
    System.out.println("Output is printed.......");
 }
}
```

Output - lab_assignment_1_4 (run)

```
run:
no of records2
Output is printed.......
BUILD SUCCESSFUL (total time: 1 second)
```

SimpleInterest.java   source.txt

Source   History

```
1   2
2   john 10000 2.5 1.2
3   Jane 100000 5.5 3
4
```

SimpleInterest.java   source.txt   destination.txt

Source   History

```
1   john 10000.00 2.50 1.20 300.00
2   Jane 100000.00 5.50 3.00 16500.00
3
```
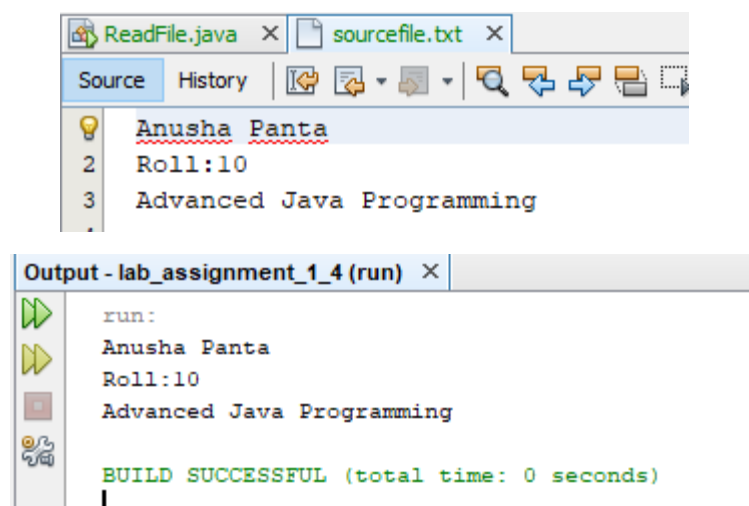
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4. Write a program to read the contents of a file one line at a time and output them to the screen.

Program:

```java
package lab_assignment_1_4;

import java.io.BufferedReader;
import java.io.FileNotFoundException;
import java.io.FileReader;
import java.io.IOException;

/**
 *
 * @author student
 */
public class ReadFile {
    public static void main(String[] args)
            throws FileNotFoundException, IOException {
        BufferedReader in=null;
        try{
            in = new BufferedReader(new FileReader("sourcefile.txt"));
            String line;
            while(true){
                line = in.readLine();
                if(line==null)
                    break;
                System.out.println(line);
            }
        }
        finally{
            if(in!=null)
                in.close();
        }
    }
}
```

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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:

```java
package lab_assignment_1_4;

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


/**
 *
 * @author student
 */
public class WriteFile {
    private static String name;
    public static void main(String[] args) throws IOException {
        PrintWriter out = null;
        try{
            out = new PrintWriter(new FileWriter("destinationwritefile.txt"));
            Scanner in =new Scanner(System.in);

            while(true){
                System.out.println("Enter the line :");
                String name = in.nextLine();

                if(name.equals("quit"))
                    break;
                out.println(name);

            }
        }
        finally{
            if(out!=null)
                out.close();

        }
    }

}
```

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```
Output - lab_assignment_1_4 (run)  ✕

run:
Enter the line :
Anusha
Enter the line :
Aliza
Enter the line :
Hello
Enter the line :
quit
BUILD SUCCESSFUL (total time: 18 seconds)
```

```
WriteFile.java  ✕    destinationwritefile.txt  ✕

Source   History

1   Anusha
2   Aliza
3   Hello
4
```