OBJECT ORIENTED PROGRAMMING LAB

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Experiment No.: 17

Aim:

Program to list the sub directories and files in a given directory and also search for a file name.

Procedure:

```
import java.io.File;
import java.io.*;
import java.util.*;
public class P1 {
public static final String RESET = "\033[0m";
public static final String RED = "\033[0;31m";
public static final String TEXT_RESET = "\u001B[0m";
public static final String TEXT_BLACK = "\u001B[30m";
public static final String TEXT_RED = "\u001B[31m";
static void RecursivePrint(File[] arr, int index, int level, String searchfor) {
if (index == arr.length)
return;
for (int i = 0; i < level; i++)
System.out.print("\t");
if (arr[index].getName().toLowerCase().contains(searchfor))
System.out.print(TEXT_RED);
else
System.out.print(RESET);
if (arr[index].isFile())
System.out.println(arr[index].getName());
else if (arr[index].isDirectory()) {
```

```
System.out.println("[" + arr[index].getName() + "]");
RecursivePrint(arr[index].listFiles(), 0, level + 1, searchfor);
}
RecursivePrint(arr, ++index, level, searchfor);
}
public static void main(String[] args) {
Scanner scan = new Scanner(System.in);
System.out.println("Enter the directory path");
String maindirpath = scan.nextLine();
System.out.println("Enter the file/directory name to search");
String searchfor = scan.nextLine();
File maindir = new File(maindirpath);
if (maindir.exists() && maindir.isDirectory()) {
File arr[] = maindir.listFiles();
System.out.println("################################################");
System.out.println("Files from main directory" + maindir);
System.out.println("################################################");
RecursivePrint(arr, 0, 0, searchfor.toLowerCase()); // array,index,level,search
}}}
```

Output Screenshot:

```
D:\jomol>javac P1.java

D:\jomol>java P1
Enter the directory path
D:\jomol
Enter the file/directory name to search
BillCalc.java
################################################
Files from main directoryD:\jomol
################################################
←[0mbill.class
←[0mBillCalc.class
←[31mBillCalc.java
←[0mcalc.class
←[0mP1.class
←[0mP1.java
```

Experiment No.: 18

Aim:

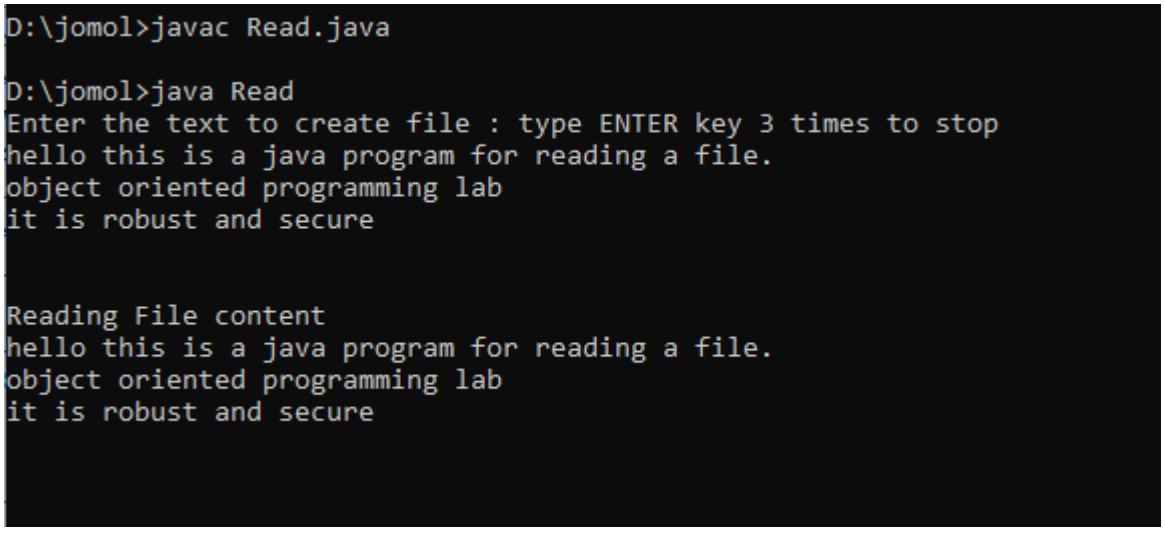
Write a program to write to a file, then read from the file and display the contents on the console.

Procedure:

```
import java.io.FileReader;
import java.io.FileWriter;
import java.io.IOException;
import java.io.*;
import java.util.*;
import java.io.File;
class Read {
public static void main(String[] args) {
String var = "";
Scanner scan = new Scanner(System.in);
System.out.println("Enter the text to create file : type ENTER key 3 times to stop");
while (!var.endsWith("\n\n\n"))
var = var + scan.nextLine() + "\n";
try {
File file = new File("output.txt");
FileWriter fw = new FileWriter(file);
fw.write(var);
fw.close();
System.out.println("Reading File content");
FileReader fr = new FileReader("output.txt");
String str = "";
```

```
int i;
while ((i = fr.read()) != -1) {
str += (char) i;
}
System.out.println(str);
fr.close();
} catch (IOException e) {
System.out.println("There are some exception");
}
}
}
```

Output Screenshot:



Experiment No.: 19

Aim:

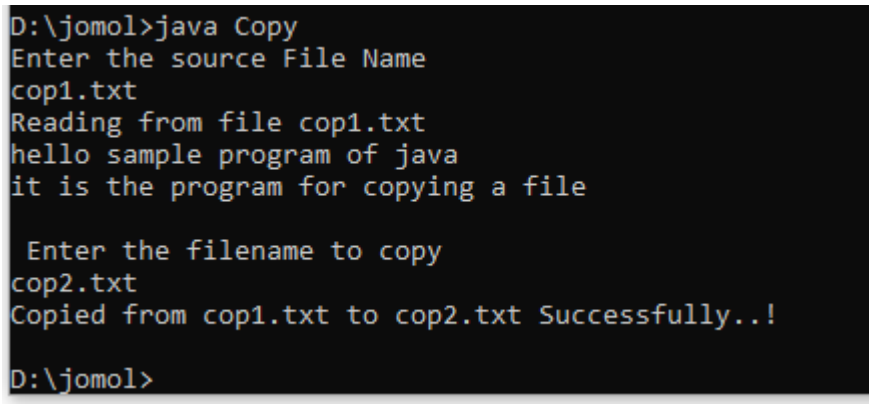
Write a program to copy one file to another

Procedure:

```
import java.io.FileReader;
import java.io.FileWriter;
import java.io.IOException;
import java.io.*;
import java.util.*;
import java.io.File;
public class Copy {
public static void main(String[] args) {
Scanner scan=new Scanner(System.in);
System.out.println("Enter the source File Name");
String source=scan.nextLine();
try {
FileReader fr=new FileReader(source);
String str = "";
int i;
System.out.println("Reading from file "+source);
while ((i = fr.read()) != -1) {
str += (char) i;
}
System.out.println(str);
System.out.println("\n Enter the filename to copy");
```

```
String destination=scan.nextLine();
File file=new File(destination);
FileWriter fw = new FileWriter(file);
fw.write(str);
fr.close();
fw.close();
System.out.println("Copied from "+source+" to "+destination+ " Successfully..!");
} catch (Exception e) {
System.out.println("Exception Occured");
}
}
}
```

Output Screenshot:



Experiment No.: 20

Aim:

Write a program that reads from a file having integers. Copy even numbers and odd numbers to separate files.

Procedure:

```
import java.io.FileReader;
import java.io.FileWriter;
import java.io.IOException;
import java.io.*;
import java.util.*;
import java.io.File;
public class oddeven {
public static void main(String[] args) {
try {
FileReader fr = new FileReader("numbers.txt");
BufferedReader br = new BufferedReader(fr);
File file1 = new File("oddnumbers.txt");
FileWriter fw1 = new FileWriter(file1);
File file2 = new File("evennumbers.txt");
FileWriter fw2 = new FileWriter(file2);
String num;
while ((num = br.readLine()) != null) {
if (Integer.parseInt(num) % 2 == 0) {
fw2.write(num + "\n");
}
else {
```

```
fw1.write(num + "\n");
}
}
fw1.close();
fw2.close();
}
catch (Exception e)
{    System.out.println("Error");
}}}
```

Output Screenshot:

```
C:\Users\jomol\OneDrive\Pictures\ajava lab>javac oddeven.java

C:\Users\jomol\OneDrive\Pictures\ajava lab>java oddeven

C:\Users\jomol\OneDrive\Pictures\ajava lab>
```

change.log | oddeven.java | numbers.txt | oddnumbers.txt | evennumbers.txt

```
1
2
3
4
5
8
9
```

change.log | oddeven.java | numbers.txt | oddnumbers.txt | evennumbers.txt

```
1
3
5
9
```

change.log | oddeven.java | numbers.txt | oddnumbers.txt | evennumbers.txt

```
2
4
8
```