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

```
import java.io.File;
import java.util.*;
import java.io.*;

public class p1 {
    public static final String RED="\033[0;31m";
    public static final String RESET="\033[0m";
    static void RecursivePrint(File[] arr, int index, int level, String search
for) {
        // exit condition
        if (index == arr.length)
            return;
        // space for internbal level
        for (int i = 0; i < level; i++)
            System.out.print("\t");

            if(arr[index].getName().toLowerCase().contains(searchfor))
            System.out.print(RED);
            else
                System.out.print(RESET);
        // for files
        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
            }
        }
    }
```

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

```
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 exit to stop"
);
        while (!var.endsWith("exit\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) {
                // Storing every character in the string
                str += (char) i;
            }
            System.out.println(str);
            fr.close();
        } catch (IOException e) {
            System.out.println("There are some exception");
        }
    }
}
```