**Specification Document**

***1.PRODUCT CAPABILITIES***

*The product is capable*

1. *To display the contents of the directory*
2. *To add a user input file(case insensitive)*
3. *To search for a user input file( case sensitive)*
4. *To delete a user input file (case sensitive)*

**2*.JAVA CONCEPTS USED IN THE PROJECT***

* *WHILE LOOP is used for displaying the multiple options options*
* *SWITCH CASE statement is used for calling the particular function selected by the user*
* *Abstact class and abstract methods are used so that we can easily implement the required 4 functions of a given directory*
* *getCanonicalPath() function is used to compare the name of the files in a case sensitive way.*
* *For sorting in ascending order Arrays.sort() is used*
* *To retrieve the files listFiles() method is used*

SOURCE CODE:

package jav.prog.filehandling2;

import java.io.File;

import java.io.IOException;

import java.util.Arrays;

import java.util.Scanner;

abstract class MyClass

{

protected File fg;

protected final String s1;

public MyClass(String s1)

{

this.s1=s1;

fg=new File(s1);

}

abstract void addfile1(String s2);

abstract void displayFile1();

abstract void searchFile1(String s3);

abstract void deleteFile1(String s4);

}

abstract class My2Class extends MyClass

{

My2Class(String s1)

{

super(s1);

}

public void addfile1(String s5)

{

this.fg=new File(s1+"\\"+s5);

try

{

if(fg.createNewFile())

{

System.out.println("File is created and name is : "+fg.getName());

}

else

{

System.out.println("File already exist");

}

}

catch (IOException e)

{

// TODO Auto-generated catch block

e.printStackTrace();

}

}

}

abstract class MyClass3 extends My2Class

{

MyClass3(String s1)

{

super(s1);

}

void displayFile1()

{

//display the directory contents

try

{

File files6[]=fg.listFiles();

Arrays.sort(files6);

int i=1;

for(File f:files6)

{

System.out.println("\n "+i+" "+ f.getName());

i=i+1;

}

System.out.println();

}

catch(Exception e)

{

}

}

}

abstract class MyClass4 extends MyClass3

{

MyClass4(String s1)

{

super(s1);

}

// search for a file

void searchFile1(String s6)

{

try

{

File[] files2=fg.listFiles();

this.fg=new File(s1+"\\"+s6);

if(fg.exists()&&fg.getCanonicalPath().equals(s1+"\\"+s6))

{

System.out.println("File exist");

}

else

{

System.out.println("File does not exist");

}

}

/\*for(File f:files2)

{

String sa=f.getName();

if(sa.equals(s6))

{

System.out.println("File found!");

break;

}

}\*/

catch(Exception e)

{

}

}

}

class MyClass5 extends MyClass4

{

MyClass5(String s1)

{

super(s1);

}

//delete an existing file

void deleteFile1(String s8)

{

try

{

File[] files2=fg.listFiles();

this.fg=new File(s1+"\\"+s8);

if(fg.exists()&&fg.getCanonicalPath().equals(s1+"\\"+s8))

{

System.out.println("File exist");

if(fg.delete())

{

System.out.println("File is successfully deleted");

}

else

{

System.out.println("File deletion fail");

}

}

else

{

System.out.println("File does not exist!");

}

/\*File[] files6=fg.listFiles();

for(File f:files6)

{

if(f.equals(s8))

{

System.out.println("File found!");

f.delete();

System.out.println("Successfully deleted ! ");

}

else

{

System.out.println("File not found !");

}

}\*/

}

catch(Exception e)

{

}

}

}

public class FileMyProject

{

public static void main(String args[])

{

String input;

char quit='n';

int num=0;

Scanner cswer=new Scanner(System.in);

MyClass mc=new MyClass5("D:\\java full stacks programs");

while(quit!='y')

{

System.out.println("Company name : Company Lockers Pvt.Ltd ");

System.out.println("Application name:LockedMe.com");

System.out.println("Organically coded by Reema");

System.out.println("Program to demonstrate file handling");

System.out.println(" 1.Display contents\n 2.Add file\n 3.Search\n 4. Delete \n ");

System.out.println("Enter your choice between 1 to 4 \n");

num=cswer.nextInt();

switch(num)

{

case 1:System.out.println("Display the contents of directory ");

mc.displayFile1();

break;

case 2:System.out.println("Add file");

System.out.println("Enter the name of the file");

Scanner scan =new Scanner(System.in);

String s5=scan.nextLine();

mc.addfile1(s5);

break;

case 3:System.out.println("Search for a file");

System.out.println("Enter the name to be search ");

Scanner scan3=new Scanner(System.in);

String s6=scan3.nextLine();

mc.searchFile1(s6);

break;

case 4:System.out.println("Delete a user input file");

Scanner scan2=new Scanner(System.in);

String s8=scan2.nextLine();

mc.deleteFile1(s8);

break;

default:System.out.println("wrong choice\n");

}

System.out.println("Would you like to quit y/n?");

input=cswer.next().toLowerCase();

quit=input.charAt(0);

}

}

}

SCREEN SHOT















 